



A Govt. of Maharashtra Undertaking]
CIN: U40109MH2005SGC153645



MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.

Chief Engineer, Material Management Dept.,

Plot No. G-9, 1ST Floor, Prakashgad, Prof. Anant Kanekar Marg,
Bandra (East), Mumbai-400051.

Phone: (O) 9122-26474211 / 26472131, (P) 26473139,

E-mail: cemmcmstedcl@mahadiscom.in, cemmcmstedcl@gmail.com

Website: <http://www.mahadiscom.in>

MMD/T-NSC-05/0922/27209

Date: 17-10-2022

To,

All firms.

Sub: Appointment of Advanced Metering Infrastructure Service Provider (AMISP) for Smart System Metering on Design-Build-Finance-Own-Operate-Transfer (DBFOOT) basis in entire state of Maharashtra against Tender No. MMD/T-NSC-05/0922.

---- Pre-Bid queries clarifications.

CORRIGENDUM No. 1

To tender No. MMD/T-NSC-05/0922

Sr. No.	Parameter	Existing Clause	Proposed Clause
1	Financial Proposal - Forms (1.2 of Section - 5)	Three phase LT-CT operated Smart Meter - Boundary Meter with CTs, control cables, with DI provisions Meter Box and Back-end IT Infra with associated works and requisite no. of polycarbonate seal.	Three phase HT-CT operated Smart Meter - Boundary Meter with CTs, control cables, with DI provisions Meter Box and Back-end IT Infra with associated works and requisite no. of polycarbonate seal.
2	Direct Debit Facility (Cl. No. 5.2.8 of Section-7)	The Direct Debit Facility would include a bucket filling approach whereby all consumer recharges and bill payments from the 11th (eleventh) working day of every month up to 10th (tenth) working day of the immediately succeeding month will be routed directly to the AMISP's bank account till such time the undisputed amount of the payment due including amount due towards with supplementary invoice issued by AMISP is recovered in its entirety. Once the entire undisputed amount of the payment due including amount due towards with supplementary invoice is recovered, the Direct Debit Facility shall no longer transfer any money to the AMISP. In the event the overall monthly amount due to the AMISP (i.e. 100% of undisputed amount due to be paid including any amount due to be paid towards supplementary invoice issued by AMISP) as the sum of the consumer	As per SBD and directives issued by RECL dtd. 11.10.2022 (Direct Debit Project Account Quadripartite Agreement format is attached with this letter)


Sr. No.	Parameter	Existing Clause	Proposed Clause
		payments is not reached till 10th working day of the next month, the shortfall/ deficit amount shall be paid along with the undisputed amount due to be paid including any amount to be paid towards supplementary invoice issued by AMISP for the immediately succeeding month.	
3	Configuration (Cl. No. 2.3.1 of Section-6) Asset Management (Cl. No. 2.4.1 of Section-6)	HES Configuration Asset Management	The MD integration period for HT meters shall be 15 minutes with block window method. For LT meters it is 30 minutes with block window method.
4		The 4G/3G/2G cellular band is required for bidder as per SBD.	The 5G/4G/3G/2G cellular band is required i.e. communication technology should be compatible for 5G also.
5	Service Level Agreement (Cl. No. 7.5 of Section-6)	Periodic collection of the interval load profile data for the day (assuming interval of 30 minutes). Performance requirement from 95% meters within 8 Hrs. (Avg. over a month)	Periodic collection the interval load profile data for the day (assuming interval of 15 minutes). Performance requirement from 95% meters within 15 minutes (Avg. over a month) - (This will be applicable to HT feeder meters only)
6	Head End System (Cl. No. 2.3 of Section-6)	HES shall be developed on open platform based on distributed architecture for scalability without degradation of the performance using additional hardware. The scalability shall ensure the ability to handle applicable workloads including the following: MSEDCL to define the scalability required. An indicative list of parameters is provided below. a) Up to [x] numbers of meters installed b) [5/15] mins interval meter reads c) [y] users requesting data from meters d) Other events and statuses coming from meters.	HES shall be developed on open platform based on distributed architecture for scalability without degradation of the performance using additional hardware. The scalability shall ensure the ability to handle applicable workloads including the following: MSEDCL to define the scalability required. An indicative list of parameters is provided below. a) Up to [6,50,000] numbers of meters installed (150% of Advertised Quantity) b) [15] mins interval meter reads c) [1000] users requesting data from meters d) Other events and statuses coming from meters.
7	Specification of LTCT Meter Box (Annexure-M of Section-6)	Material of Meter Box shall be SMC / Polycarbonate.	Meter boxes shall be of SMC Material (Sheet Moulding Compound). [RECL Addendum dtd. 28.09.2022-Annexure-I (A)].

8) Project Implementation Schedule : (Cl. No. 12 of Section-6)

Cl. No.	Milestone	Existing Timeline (in Months)	Proposed Timeline (in Months)
3	<ul style="list-style-type: none"> Delivery, site installation & commissioning of Network Operations cum Monitoring Centre with related hardware, software and equipment; and Delivery, site installation, integration & operationalization of [10%] of DT Meters each with related meter box, DT cable, hardware, software and equipment and successful operational go-live 	Within 3 months from the date of execution of the Contract	Within 6 months from the date of execution of the Contract
4	Delivery, site installation, integration and operationalization of 100% of Feeder Meters each with related hardware, software and equipment	Within 3 months from the date of execution of the Contract	Within 6 months from the date of execution of the Contract
5	Delivery, site installation, integration and operationalization of 50% of DT Meters each with related hardware, software and equipment	Within 6 months from the date of execution of the Contract	Within 9 months from the date of execution of the Contract
6	Delivery, site installation, integration and operationalization of 100% of DT Meters each with related hardware, software and equipment	Within 9 months from the date of execution of the Contract	Within 12 months from the date of execution of the Contract
7	Installation Milestone	Within 9 months from the date of execution of the Contract	Within 12 months from the date of execution of the Contract

9) Rating wise details of DTCs :

Sr. No.	DTC capacity in KVA	Count of DTC (in Nos.)
1	50	1,800
2	63	1,26,351
3	75	12,000
4	100	1,82,560
5	200	48,023
6	315	13,995
7	500	2,540
8	630	15,933
9	750	425
10	1000	1,006
11	1250	1,079
12	Others	1,795
	Total	4,07,507


Dr. Manish Wath
Chief Engineer (MMD)



REC/PMD/RDSS/22-23/285

Date: 11.10.2022

Sub: Guidance for institutionalizing the Direct Debit Facility as a payment mechanism of monthly AMISP payments

Sir/Madam,

In reference to the AMISP SBD, Utility has to establish a Direct Debit Facility as a payment mechanism of the amount due to be paid to the AMISP. To institutionalize this Direct Debit facility, Nodal agency has drafted a Direct Debit account quadripartite agreement with the following guidelines for Utilities:

1. This Quadripartite agreement shall be considered as part of the SBD and shall be included in Form 5 of Section 8 of the SBD. All other terms and conditions of the SBD shall remain the same.
 - a. In case utilities have completed the bid process, this quadripartite agreement shall be included as an addendum to the Contract and shall be signed by the respective parties at the time of contract signing and all other terms and conditions shall remain the same.
 - b. In case of live bids, Utilities may release an amendment with this quadripartite agreement included as a separate form (Form 5 of Section 8) to the tender document. All other terms and conditions of the tender shall remain the same and there shall be no possible impact on the bid submission timelines/ project structure/ payment mechanism etc.
2. In case Discoms are implementing smart metering projects through CPSEs (including their subsidiaries and JVs), the agreement shall be signed amongst the CPSE PIA, Utility, Direct debit bank account agent and the Payment gateway service provider. In such cases "AMISP" shall be replaced with "CPSE PIA" across all clauses in the Quadripartite agreement and all other terms and conditions shall be governed by the contract between the Utility and the CPSE PIA.

Thanking you.

Yours Sincerely,


11.10.22.
(R. Lakshmanan)

Enclosed: Guidance Note and draft quadripartite agreement.

To,
The Chairman/Managing Director
All State Discoms

Copy to:

1. The Additional Chief Secretary/Principal Secretary/Secretary (Power/Energy), All States/UTs.
2. The Joint Secretary (Distribution), Ministry of Power, Shram Shakti Bhawan, New Delhi.
3. The CMD, PFC Ltd, New Delhi.

REC Limited

(Formerly Rural Electrification Corporation Limited)
A Government of India Enterprise

Corporate Office: Plot No.1-4, Sector 29, Gurugram, Haryana - 122001.
Tel:+91 0124 4441310, 0124 2711006 | Email: lakshmanan@recl.in | Website: www.recindia.nic.in | CIN: L40101DL1969GOI005095
Regd. Office : Core-4, SCOPE Complex, 7 Lodhi Road, New Delhi 110 003

TO BE EXECUTED ON STAMP PAPER

OF Rs. 500/-

**DIRECT DEBIT ACCOUNT QUADRIPARTITE AGREEMENT FOR MONTHLY
AMISP PAYMENTS**

This Quadripartite Agreement is made on this _____ day of _____
2022 at [Location]

AMONGST

[Name of the Utility], a Company registered under the Companies Act, 1956/2013, and having its Registered Office at [Address of the Utility] (hereinafter referred as 'Utility', which expression shall unless it be repugnant to the context or meaning thereof be deemed to include its successors, assigns and permitted substitutes);

AND

[Name of the SPV (OR) the lead consortium member/ sole bidder (in case CPSE/PSU or any subsidiary/ Joint venture of a CPSE/ PSU is the sole/ lead member)], a Company registered under the Companies Act, 1956/2013 and having its registered office at [Name (hereinafter referred to as "AMISP", which expression shall unless repugnant to the context or meaning thereof include its successors, assigns and permitted substitutes);

AND

[Name of the Direct Debit Account Bank], a Bank constituted under the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970 having its Head Office at [Address of the Bank] and several branches throughout the country and abroad and having branch at [Address of the branch] (hereinafter referred to as the "Direct Debit Account Agent" which expression shall unless it be repugnant to the subject or context thereof, be deemed to include its successors and permitted assigns).

AND

[Name of the Payment Gateway service provider], a Company authorized under the Payment and Settlements Act, 2007, and having its Registered Office at [Address of the Payment Gateway service provider] (hereinafter referred as 'Payment Gateway service provider', which expression shall unless it be repugnant to the context or meaning thereof be deemed to include its successors, assigns and permitted substitutes);

The utility, the AMISP, the Payment Gateway service provider and the Direct Debit Account Agent are collectively referred to as "Parties" and individually as a "Party".

WHEREAS:

- A. The Utility and AMISP have entered into an agreement for Implementation of AMI project in prepaid mode on DBFOOT basis for a consumer base of [XX nos] in the [areas of XX] (hereinafter referred to as the 'AMISP Contract" which expression shall include all amendments thereto), as presented in Schedule II of this Agreement.
- B. In terms of the said AMISP Contract enclosed at Schedule II, the utility is required to provide Payment Security Mechanism and duly secure the AMISP by establishing a separate facility for securing the payment obligations outlined in the AMISP Contract. For the said purpose and as per the AMISP Contract, Utility shall enter into a Quadripartite Agreement with AMISP, Payment Gateway service provider and the designated bank ("Direct Debit Account Agent") for ensuring prompt payment to AMISP of amounts due under the AMISP Contract.
- C. The Parties have decided to reduce the terms and conditions agreed upon, into writing, through these presents.

NOW THIS AGREEMENT WITNESSETH AND IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

ARTICLE – I

1. DEFINITIONS:

In this Agreement, unless there is anything repugnant to the subject or context thereof, the expressions listed below shall have the following meanings viz.:

"AMISP's Bank Account" shall mean the Account Number [A/c No.] held by AMISP with [Name of the Bank with Address] and denominated in Rupees or any other account and bank as may thereafter be notified by AMISP to the other parties to this agreement in writing.

"AMISP Monthly Fee" shall have the meaning ascribed to such term in the AMISP Contract

"Business Day" means any day on which the Office of the Direct Debit Account Agent is open for normal business transaction in terms of the Negotiable Instruments Act 1881 or such other office as may be notified by the Direct Debit Account Agent are open for normal business transactions.

"Business Hours" Shall mean 10 AM to 5 PM on any Business Day.

"Effective Date" means the date on which this Agreement is executed.

"Default Interest" means interest on the overdue amount from the due date.

"Fees" shall have the meaning as set forth in Section 8.1 hereof due and payable to the Direct Debit Account Agent.

"Force Majeure" shall mean as ascribed in AMISP Contract

"Payment Due Date" shall have the meaning as set forth in Section 5.2.5 hereof.

"Direct Debit Account" means a current bank account opened in terms of this agreement and Account Number [A/c No.] denominated in Rupees established and maintained by the Utility, with the Direct Debit Account Agent at its branch situated at [location].

"SLA" shall have the meaning as set forth in Section 4.2.1 hereof.

"Utility's Bank Accounts" shall mean the accounts as mentioned in the Schedule-I where all online consumer payments for sale of power by the Utility are deposited - Collectively called as Utility's Bank Accounts.

"Chosen Payment Gateway" shall mean the Payment Gateway chosen by the Utility for the purpose of this agreement

ARTICLE - II

2. APPOINTMENT OF DIRECT DEBIT ACCOUNT AGENT:

- 2.1. The [Name of the Direct Debit Account Bank] is hereby appointed and [Name of the Direct Debit Account Bank] accepts appointment as the Direct Debit Account Agent under this Agreement and undertakes to carry out its obligations in accordance with the terms and conditions contained herein.
- 2.2. Any Fees and expenses of the Direct Debit Account Agent in connection with its duties hereunder shall be paid by Utility.

3. CHOOSING THE PAYMENT GATEWAY:

- 3.1. Utility shall choose the Payment Gateway ('Chosen Payment Gateway') which has the maximum average monthly inflow of monies, which maybe at least 5 (five) times the estimated monthly payment to the AMISP, calculated on the total contract award quantity. Average monthly inflow shall be calculated for the last six calendar months from the date of letter of award.

ARTICLE - III

4. ESTABLISHMENT OF DIRECT DEBIT ACCOUNT

- 4.1. Utility shall enter into a Quadripartite Agreement, with the AMISP, Payment Gateway service provider and Direct Debit Account Agent as designated Bank, at the time of contract signing, to establish a separate current Direct Debit Account (hereinafter referred to as "Direct Debit Account").
- 4.2. This Direct Debit Account shall be linked to the Utility's Chosen Payment Gateway (where online consumer payments from sale of power by the Utility are routed through), Utility's Bank Accounts (where all online consumer payments from sale of power by the Utility are deposited) as well as the AMISP's Bank Account (where the AMISP Monthly Fee shall be credited to).
- 4.3. The Direct Debit Account Agent would act as the sole authorizing agency for any transaction related to the Direct Debit Account in line with the agreed terms and conditions of this Agreement.

- 4.4. The Utility hereby authorize the Direct Debit Account Agent and has issued standing and irrevocable instructions to automatically make payments to the AMISP Bank Account for the purpose of this Agreement.
- 4.5. As soon as practicable but in no event later than 14 (fourteen) days from the execution of this Agreement, Utility, AMISP and Payment Gateway service provider shall deliver to each other and to the Direct Debit Account Agent, specimen signatures of their respective authorized officers duly attested by their banks for the purposes of this Agreement. Utility, AMISP and Payment Gateway service provider shall have the right to change their respective authorized officers by delivering specimen signatures of their respective new authorized officers. All the instruction should be provided by the authorized officers of the Parties.
- 4.6. The Utility, AMISP and the Payment Gateway service provider shall be bound by the acts done by the Direct Debit Account Agent in accordance with such instructions as per the terms of this Agreement.

ARTICLE - IV

5. OPERATION OF THE DIRECT DEBIT ACCOUNT

- 5.1. Deposits
 - 5.1.1. The Utility shall ensure that a daily inflow of at least 1/10th of the approved invoice amount is transferred from the Chosen Payment Gateway to the Direct Debit Bank account from the 11th working day of the month of invoice submission during the term of this Agreement till the due approved payment to the AMISP is cleared in its entirety as per clause 5.2.5
 - 5.1.2. The Direct Debit Account Agent shall monitor the inflow into the Direct Debit Account during the AMISP Contract period. In case the daily inflow is less than 1/10th of the approved invoice amount, Direct Debit Account Agent shall pass on necessary instructions in writing within 1 (one) working day of such default to the Utility and AMISP. Utility shall be responsible to address the non-adherence within 2 working days of receiving such intimation from the Direct Debit Account Agent.

5.2. Withdrawals

- 5.2.1. As per the covenants of the AMISP Contract, AMISP will raise the invoice for AMISP Monthly payment along with the service level agreement ("SLA") performance report and deliver a copy of the invoice to the Direct Debit Account Agent for the monthly payments within first 5 (five) working days of the month.
- 5.2.2. The Direct Debit Account Agent will duly notify the Utility upon receipt of any invoice for the AMISP Monthly Fee from AMISP to the Utility within 1 (one) working day.
- 5.2.3. The Utility will review/examine/verify the invoice and the SLA performance report raised by AMISP, within Five (5) working days from the date of invoice submission and shall prepare an approved amount report along with deductions (if any) in form of penalties, liquidated damages and taxes. The approved amount report of the invoice shall be notified to AMISP and Direct Debit Account Agent within Five (5) working days from the date of invoice submission.
- 5.2.4. In case the Utility doesn't provide the approved amount report to AMISP, and Direct Debit Account Agent as mentioned above, it shall be deemed that the entire invoice amount as raised by AMISP is undisputed and shall be deemed approved.
- 5.2.5. The Direct Debit Account Agent shall pay the approved amount of the AMISP Monthly Fee starting from the 11th working day of the month and shall ensure that all payments are made in full to the AMISP within 45 (forty-five) days (the "Payment Due Date") of receipt of invoices in which the concerned invoice has been raised and inform Utility of the due payments made to AMISP. At the end of each day during the AMISP Contract period, any amount remaining in the Direct Debit Account after paying any pending approved amount to the AMISP shall automatically be transferred to the Utility's Bank Accounts.
- 5.2.6. In the event Utility fails to clear any payment to the AMISP (including disputed payment) within the Payment Due Date, Utility shall pay interest on the delayed payment to the AMISP from the Payment Due Date till the date of release of payment. Utility shall pass on necessary instructions to the Direct Debit Account Agent on this regard for clearing any delayed payment along with the interest. Direct Debit Account

Agent shall transfer the notified amount (delayed payment plus interest) to the AMISP within 1 (one) working day from such notification from the Utility.

- 5.2.7. In case the Utility fails to make any interest payment on the delayed amount, AMISP may raise a separate invoice on a quarterly basis within 5 (five) working day of the first month of the quarter and deliver two copies of the invoices for interest payment to Utility and the Direct Debit Account agent. The Utility will review/examine/verify the invoice on the due interest amount, within Five (5) working days from the date of invoice submission and shall prepare an approved interest amount report. Same shall be notified to AMISP and Direct Debit Account Agent by the 10th working day of the first month of the quarter in which the concerned invoice is raised.
- 5.2.8. In case of any difference in the due AMISP invoice amount and approved amount report provided by utility, the disputed portion of the AMISP Monthly fee shall be dealt with in accordance with the terms and conditions of the AMISP Contract and post dispute resolution, the disputed portion shall be paid with the subsequent month's invoice of the AMISP.

ARTICLE - V

6. REPRESENTATIONS AND WARRANTIES

The Parties hereby represent and warrant:

- 6.1. That they are fully authorized to enter into this agreement and that this agreement is not in violation of any terms and conditions or covenant of any agreement to which the Utility, AMISP, Payment Gateway service provider and Direct Debit Account Agent is a party.
- 6.2. That this Agreement constitutes a valid, legal and binding legal obligation and is enforceable against the Utility, AMISP, Payment Gateway service provider and Direct Debit Account Agent in accordance with the terms hereof.
- 6.3. That neither the execution and delivery of this Agreement nor the fulfillment of or compliance with the terms and conditions thereof conflict with or result in a breach of or a default under any of the terms, conditions or provisions of any legal restriction

(including, without limitation, any judgment, order, injunction, decree or ruling of any court or governmental authority, or any federal, state, local or other law, statute, rule or regulation) or any covenant or agreement or instrument to which the Utility, AMISP, Payment Gateway service provider and Direct Debit Account Agent are a party.

ARTICLE - VI

7. RIGHTS AND DUTIES OF THE DIRECT DEBIT ACCOUNT AGENT

- 7.1. The Direct Debit Account Agent:
 - a) may, in good faith, rely as to any matters of fact, which might reasonably be expected to be within the knowledge of Utility and AMISP; and
 - b) may, in good faith, rely upon the authenticity of any communication or documents believed by it to be authentic.
- 7.2. The duties and responsibilities of the Direct Debit Account Agent shall be restricted to the terms of this Agreement only and the Direct Debit Account Agent shall not be responsible for the performance or non-performance and the observance or non-observance of any contractual or any legal obligations by any other party.
- 7.3. The Direct Debit Account Agent shall provide to the Utility and AMISP no later than fifteen (15) Business Days from the end of each month, a statement of account detailing all deposits, transfers, disbursements or payments into and from the Direct Debit Account during the previous month.
- 7.4. Monies received by the Direct Debit Account Agent under this Agreement shall, until used or applied in accordance with this Agreement, be held by the Direct Debit Account Agent for the purposes for which they were received.
- 7.5. The Direct Debit Account Agent shall have no liability to either the Utility or AMISP for any loss or damage that either or any may claim to have suffered or incurred either directly or indirectly, by reason of this Agreement or any transaction or service contemplated by the provisions of this Agreement unless caused by the gross negligence or willful misconduct or fraud or breach of obligations of the Direct Debit Account Agent. The Utility and AMISP agree to indemnify the Direct Debit Account

Agent and hold it harmless from and against any and all claims, other than those ultimately determined to be founded on gross negligence or willful misconduct or fraud of the Direct Debit Account Agent or as a result of breach of its obligations and from and against any damages, penalties, judgements, liabilities, losses or expenses (including reasonable attorney's fees and disbursements) incurred as a result of the assertion of any claim by any person or entity, arising out of or otherwise related to any transaction conducted or service provided by the Direct Debit Account Agent through the use of any account at the Direct Debit Account Agent pursuant to the procedures provided for or contemplated by this Agreement. All indemnities in favour of the Direct Debit Account Agent in terms of this Agreement shall survive the termination of Agreement.

- 7.6. Notwithstanding anything contained to the contrary, the Parties agree that the liability of Direct Debit Account Agent to Utility and AMISP (in contract or tort or under statute or otherwise) under this Agreement, shall be limited to the Fees agreed by the Direct Debit Account Agent for such services other than on account of its gross negligence or willful misconduct or fraud or breach of obligations of the Direct Debit Account Agent.
- 7.7. The Direct Debit Account Agent is not expected or required to be familiar with the provisions of any other agreement or documents and shall not be charged with any responsibility or liability in connection with the observance of the provisions of any such other agreement.
- 7.8. The Direct Debit Account Agent shall in no event be liable for any direct, indirect, consequential, exemplary or other damages, claims or suits in any action brought by any Party, for any reason whatsoever, even if the Direct Debit Account Agent is advised of such claims or damages.
- 7.9. None of the provisions of this Agreement shall require the Direct Debit Account Agent to expend or risk its own funds or otherwise incur financial liability or expense in the performance of any of its duties hereunder.
- 7.10. The Direct Debit Account Agent is hereby authorized to comply with and obey all orders, judgments, decrees or writs entered or issued by any court, and in the event the Direct Debit Account Agent obeys or complies with any such order, judgement, decree or writ of any court, in whole or in part, it shall not be liable to

Utility and AMISP, nor to any other person or entity, by reason of such compliance, notwithstanding that it shall be determined that any such order, judgement, decree or writ be entered without jurisdiction or be invalid for any reason or be subsequently reversed, modified, annulled or vacated.

- 7.11. The Direct Debit Account Agent may rely upon any notice or certificate believed by it to be genuine and correct and to have been signed by, or with the authority of, the proper person and not on its face contrary to any provision of this Agreement and the Direct Debit Account Agent shall not be bound in any such case to call for further evidence or be responsible for any losses, liabilities, costs, damages, expenses or inconvenience that may be occasioned by its failure to do so. The Direct Debit Account Agent neither makes any representation or warranty whatsoever nor be required to check, ensure or determine the validity, authenticity or genuineness of any documents/ instructions/ confirmations/ certifications received by it pursuant to this Agreement and shall be entitled to rely and act upon them.
- 7.12. No Party shall raise any dispute, objection or raise any question on any act, deed or thing done by Direct Debit Account Agent pursuant to acting or relying upon any documents/ instructions/ confirmations/ certifications received by it in accordance with this Agreement.
- 7.13. The Direct Debit Account agent is not acting nor shall be required to act in its capacity as the security trustee or agent on behalf of the Utility and AMISP or any third party and no security or encumbrance is being created by the Direct Debit Account Agent or shall be required to be created by the Direct Debit Account Agent or in favour of the Direct Debit Account Agent or in favour of any third Party with respect to the amounts in the Direct Debit Account and the Direct Debit Account Agent shall not responsible to ensure or keep track of the fact whether any encumbrance is created or has been created or may be created by any person or entity with respect to the amounts in the Direct Debit Account.
- 7.14. The Direct Debit Account Agent does not have any interest in the deposited amount hereunder but is serving as escrow holder only and only has possession hereof.
- 7.15. The Direct Debit Account Agent makes no representation and assumes no responsibility as to the validity, value, genuineness

or the enforceability of any security or any other document or instrument held by or delivered to it.

- 7.16. This Agreement expressly sets forth all the duties of the Direct Debit Account Agent with respect to any and all matters pertinent hereto. No implied duties or obligations shall be read into this Agreement against the Direct Debit Account Agent, charges and expenses arising out of or resulting from this Direct Debit Account Agreement (including without limitation, enforcement of the Direct Debit Account Agreement but excluding any such claims, losses or liabilities resulting from the Direct Debit Account Agents' gross negligence or willful misconduct).
- 7.17. It is hereby specifically agreed and confirmed by the Parties hereto that any act performed by the Direct Debit Account Agent pursuant to the due instructions received by the Direct Debit Account Agent from Utility and AMISP, shall be considered to be performed by the Direct Debit Account Agent in Good Faith under the instructions of Utility and AMISP and shall not be contested/ questioned by Utility and the AMISP unless the act so done by the Direct Debit Account Agent was due to its own negligence or willful default or fraud.
- 7.18. The Direct Debit Account Agent is authorized to rely on any document believed by it to authentic in making delivery of the Direct Debit Account. It shall have no responsibility for the genuineness or the validity of any document or any other item deposited with it and it shall be fully protected in acting in accordance with this agreement or instructions received.

ARTICLE - VII

8. UTILITY, PAYMENT GATEWAY SERVICE PROVIDER AND AMISP COVENANTS:

- 8.1. The Utility hereby unconditionally and irrevocably agrees that the Utility's Bank Accounts are its only accounts wherein all online consumer payments from sale of power by the Utility is being accumulated.
 - 8.1.1. The Utility shall ensure that during the tenure of this Agreement under any circumstances, Utility's Bank Accounts

- will not change. In case of any such event, a prior written consent from the AMISP will be required.
- 8.1.2. The Utility shall ensure submission of acknowledgement to AMISP from the new Utility Bank Account of the Letter in Schedule I within 7 working days from the AMISP's written consent.
 - 8.2. In no event and under no circumstances, the Chosen Payment Gateway shall deny to adhere to withdrawal requests from Direct Debit Account Agent for transferring the monies from the Payment Gateway into the Direct Debit Account therefore ensuring the terms and conditions of this agreement are adhered to. For the said purpose Utility shall provide the letter of authorization to Direct Debit Account Agent duly acknowledged and agreed by Utility Bank Account and as per the format provided in Schedule I on the date of executing this Agreement.
 - 8.3. The Direct Debit Account shall not be discontinued / closed without the prior written consent from both AMISP and the Utility. The Utility's Bank Accounts shall not be discontinued / closed without the prior written Consent from AMISP and with a written intimation to Direct Debit Account Agent. AMISP's Account shall not be discontinued / closed without the prior written consent from the Utility and with a written intimation to Direct Debit Account Agent. The Chosen Payment Gateway shall not be discontinued / closed without the prior written consent from the Utility.
 - 8.4. The Utility and AMISP represent and warrant that they have the necessary power, authority and legal right to agree to these terms and have taken all necessary actions required for the validity, enforceability and performance of their respective obligations/duties in terms hereof.

ARTICLE - VIII

9. FEES

- 9.1. The Utility shall pay, on demand, all the usual and customary service charges, transfer fees, account maintenance, account acceptance, statement, investigation, funds transfer and any other charges as are levied by the Direct Debit Account Agent as

mutually agreed and such other out of pocket expenses as are claimed by the Direct Debit Account Agent (collectively, the "Fees") in connection with the Account.

- 9.2. Notwithstanding anything contained in this Agreement, in the event that the Direct Debit Account Agent is not paid its undisputed fees within 28 days of the same becoming due then penal interest shall be payable for the defaulted amounts. The applicable penal interest rate will be equal to the marginal cost of funds-based lending rate (MCLR) for one year of the State Bank of India (*MCLR shall be as applicable on the 1st April of the financial year in which the date of release of delayed payment lies*)

ARTICLE - IX

10. SEGREGATION

- 10.1. The Direct Debit Account Agent shall, if by the terms of this Agreement, be required to perform any act / take any action on or within a period ending on a day which is not a Business Day, and then such action will be performed / taken by the Direct Debit Account Agent on the immediately succeeding Business Day.
- 10.2. Monies received by the Direct Debit Account Agent under this Agreement shall, until transferred in accordance with this agreement, be held for the purposes for which they were received and shall be segregated from other accounts of the constituents of the Direct Debit Account Agent and from the funds of the Direct Debit Account Agent, in accordance with the Banking law and practice and the Direct Debit Account Agent shall not exercise any right of set off or lien on any such monies.

ARTICLE - X

11. INDEMNITY

- 11.1. The duties and obligations of the Direct Debit Account Agent shall be determined solely by this Agreement, and the Direct Debit Account Agent shall not be liable except for the performance of such duties and obligations as are specifically set

forth in this Agreement. The Direct Debit Account Agent shall not be liable for any error of judgment, or any action taken, suffered or omitted to be taken, hereunder.

- 11.2. The Utility and AMISP severally for their respective breaches shall reimburse and indemnify the Direct Debit Account Agent, its directors, employees and agents, and hold them harmless from and against, any damages, loss, liability or expenses, including, without limitation, reasonable attorneys' fees, incurred arising out of, or connection with the acceptance of, or the performance of, its duties and obligations under this Agreement (other than on account of gross negligence, willful misconduct or fraud of the Direct Debit Account Agent).

ARTICLE - XI

12. CONFIDENTIALITY

- 12.1. The Parties will maintain the utmost confidentiality regarding the contents of this agreement at all times and they shall not make any announcement to the public or to any third party regarding the arrangements contemplated by this agreement without the consent of the Parties involved, such consent not to be unreasonably withheld, provided that the Parties to this Agreement shall not be liable for disclosure or use of any confidential information if the same is required to be disclosed by law or regulation (including Stock Exchange regulations).

ARTICLE - XII

13. TERM AND TERMINATION

- 13.1. This Agreement shall be effective from the date of opening of the Direct Debit Account and shall remain in full force and effect until the Utility and AMISP issues an unconditional written notice to the Direct Debit Account Agent directing the Direct Debit Account Agent to close the Direct Debit Account.
- 13.2. The Direct Debit Account Agent may at any time resign by giving ninety (90) Business Days prior written notice of resignation to the other Parties, provided that the resignation shall be effective only after a successor Direct Debit Account Agent has been appointed to the satisfaction of the Utility and AMISP.

- 13.3. The Payment Gateway service provider may at any time resign, or the Utility may choose to change the Payment Gateway service provider at any time, by giving ninety (90) Business Days prior written notice of resignation/ change to the other Parties, provided that the resignation/ change shall be effective only after a successor Payment Gateway service provider has been chosen by the Utility to the satisfaction of the AMISP.
- 13.4. This Agreement shall be considered terminated if the AMISP Contract is terminated in entirety.

ARTICLE - XIII

14. MISCELLANEOUS

14.1. ASSIGNMENT

AMISP shall be free to assign, only after due intimation to and approval of the Utility, all or any of the rights and interest of this Agreement in favour of its lenders (including their agents and trustees) as per the terms and conditions of the AMISP Contract. Such approval shall be granted within the shortest time possible and shall not be withheld except on causes to be recorded in writing by the Utility or the Direct Debit Account Agent and communicated to AMISP.

14.2. FORCE MAJEURE

The Direct Debit Account Agent shall not be held liable for any failure to perform its obligations hereunder, or for any delay in the performance thereof, due to Force Majeure.

14.3. GOVERNING LAW

This Agreement shall be governed by and construed in accordance with laws of India.

14.4. JURISDICTION

The Courts in [Name of the Location] shall have exclusive jurisdiction in respect of all matters arising out of or relating to this Agreement. Notwithstanding anything contained in this Agreement, the Direct Debit Account Agent shall be entitled to restrain from taking actions that are determined by it as being in contravention of any applicable laws or regulations or mala-fide.

14.5. NOTICES

All Notices, request and other communications to any party hereunder shall be in writing (including facsimile and email transmission) and shall be given or made (and shall be deemed to have been duly given or made upon receipt) by delivery in person, by telecopy, by courier or by registered or certified mail (Postage prepaid, return receipt requested) or by facsimile (with correct answerback) or email (without a delivery failure message) to the respective Parties at the following address and details (or at such other address and details as maybe intimated to the Parties)

If to the Utility:

Attn:

Address:

Tel:

Fax:

Email:

If to the AMISP:

Attn:

Address:

Tel:

Fax:

Email:

If to the Direct Debit Account Agent:

Attn:

Address:

Tel:

Fax:

Email:

If to the Payment Gateway Service Provider:

Attn:

Address:

Tel:

Fax:

Email:

14.6. AMENDMENTS

Any amendments of any provision of this Agreement shall be in writing and signed by the Parties hereto.

This Agreement is binding upon and will insure to the benefit of the Parties.

IN WITNESS WHEREOF the Parties hereto have caused this Agreement to be executed on the day, month and year first hereinabove written as hereinafter appearing.

For Utility

[Signature of Authorized Representative]

For AMISP

[Signature of Authorized Representative]

For Direct Debit Account Agent

[Signature of Authorized Representative]

For Payment Gateway Service Provider

[Signature of Authorized Representative]

WITNESS:

For Utility:

For AMISP:

For Direct Debit Account Agent:

For Payment Gateway Service Provider:

SCHEDULE-I

Letter from Utility to Chosen Payment Gateway and Direct Debit Account Agent granting permission to withdraw amounts from the Chosen Payment Gateway to deposit in the Direct Debit Account

SCHEDULE-II

Executed copy of the AMISP Contract



No. REC/PMD/AMISP/2022-23/270

Date: 28.09.2022

Subject: Addendum of option for usage of SMC meter boxes and guidance on inclusion of additional scope of Smart System Metering in non-contiguous areas – in the latest version of AMI Service Provider (AMISP) SBD

Sir / Ma'am,

This is in continuation to the last version of SBD for appointment of AMISP under RDSS, issued vide our letter ref REC/RDSS/2021-22/236 dtd. 20th August, 2022.

Subsequently, REC has been in receipt of a number of inputs and suggestions from DISCOMs and Industry Stakeholders for addressal of a few additional provisions in the SBD.

Accordingly, Annexure-I is enclosed herewith, highlighting the addendum to the SBD, for providing the option for usage of SMC meter boxes along-with the guidance on inclusion of additional scope of Smart System Metering in non-contiguous areas (*in case the DISCOM opts to undertake these works under the same RFP, along-with the works in contiguous areas*). The same is also uploaded on REC website (<http://recindia.nic.in/SBD-AMISP>).

This for your kind information and necessary action please.

With regards,

Yours Sincerely,


(R. Lakshmanan) 28.9.22.

Enclosed: As Above.

To,
The Chairman / Managing Director (s)
All DISCOMs

Copy to:

1. The Addl. Chef Secretary/Principal Secretary / Secretary (Power/Energy), All States
2. The Joint Secretary, Ministry of Power, Government of India
3. The CMD, PFC Ltd
4. All Sr. CPMs / CPMs of REC Regional Offices.

REC Limited

(Formerly Rural Electrification Corporation Limited)
A Government of India Enterprise

Corporate Office: Plot No.I-4, Sector 29, Gurugram, Haryana - 122001.
Tel:+91 0124 4441310, 0124 2711006 | Email: lakshmanan@recl.in | Website: www.recindia.nic.in | CIN: L40101DL1969GOI005095
Regd. Office : Core-4, SCOPE Complex, 7 Lodhi Road, New Delhi 110 003

A. Addendum to SBD - Inclusion of additional option of SMC meter boxes:

Annexure O under Section 6 of the SBD mentions that the meter boxes of 1-Ph and 3-Ph consumer meters to be of polycarbonate material. In respect of the 1-Ph and 3-Ph consumer meters, wherever the SBD mentions the type of meter boxes to be installed, the same shall include the option of using SMC meter boxes as well and the appropriate choice may be made by the DISCOMs based on their assessment and contextual requirements.

B. Guidance note for inclusion of additional scope of smart system metering (DTs/ Feeders) in balance areas (non-Phase-I areas), from the areas proposed for the end-to-end smart metering RFP (SBD) for appointment of Advanced Metering Infrastructure (AMI) Service Provider in Phase-I contiguous electrical locations – in case the DISCOM opts to undertake both these works under the same RFP

In reference to the Guidance circulated to Discoms vide letter no. REC/RDSS/22-23/204 dated 11th July 2022, point 2 (iii) stated that Utilities may also choose to include additional scope of smart metering of remaining DTs/ Feeders in the AMISP tenders to be rolled out for smart prepaid metering of Phase-I consumers. This would help utilities streamline the implementation schedule as well as help them expedite the smart meter deployment of 100% DTs and Feeders of Phase-II areas in-line with their REF and RDSS scheme guidelines.

If the utility decides to leverage the above-mentioned option, following changes may be required in the Model Standard Bidding Document (SBD) released for appointment of Advanced Metering Infrastructure (“AMI”) Service Provider (“AMISP”) for Smart Prepaid Metering in India on Design Build Finance Own Operate Transfer (DBFOOT) basis (*<Key changes are highlighted in red for easy reference>*):

1. Section 6 Clause 1.2 of the SBD shall be modified as follows:

“1.2 The AMI Project area

The AMI Project shall be implemented in the Project Area comprising of:

- (A) Contiguous electrical locations (which will be ring fenced with boundary meters) where all consumers, DTs, feeders shall be smart metered to enable complete energy accounting with zero manual intervention*
- (B) Non-contiguous electrical locations where dispersed metering for certain Industrial, Commercial and Government consumers and*
- (C) Non-contiguous electrical locations where smart metering of remaining DTs, Feeders and Boundary meters, i.e., those not covered under (A) above.*

<The Utility to provide information on contiguous electrical locations (which will be ring fenced with boundary meters) for end-to-end smart metering and non-contiguous electrical locations for dispersed metering within the selected AMI Project Area along with relevant network and consumer details. Utility to enter brief details on the above areas in this section with details added as an annexure to this document as required. Utility to ensure that area selected for end-to-end metering

is ring-fenced with boundary meters. This would include a pictorial representation of the Project boundary w.r.t Utility's and AMISP's roles and responsibilities for physical installation of Smart Meters>

[Profile of Project area. The key details include following:

A) Contiguous Electrical Locations:

- I. Geographical Boundary;*
- II. Number of single phase whole current Smart Meters (with/without net-metering), three phase whole current Smart Meters (with/without net-metering), LT-CT operated three phase Smart Meters (with/without net-metering), and CT/PT operated three phase Smart meters to be installed*

<The total number of smart meters to be installed should be based upon As-Is consumer database as well as projected load growth in the selected AMI Project Area during the Contract Period. Accordingly, the Utility should provide the appropriate quantity of smart meters to be installed for the AMI project based on the above consideration in Form 1 (Financial Bid) given in Section 5 of the RfP. AMISP shall provide meter LTCTs for LTCT meters as per the specifications provided by the Utility. Utility shall provide CTPTs to AMISP for HT-CTPT meters. In case Utility require AMISP to procure meter HT-CTPTs, the number and specifications for the same need to be provided by the Utility>

- III. Total number of consumer by category (Domestic/ Industrial/ Commercial/ Government);*
- IV. Substation information;*
- V. Feeder information;*
- VI. DT information;*
- VII. AT&C loss information (including billing and collection efficiency)*
- VIII. Historical load growth in project area;*
- IX. Manpower deployed in the selected area(s) of operations;*

B) Non-Contiguous Electrical Locations (Consumers):

- I. Geographical Boundary,*
- II. Number of single phase whole current Smart Meters (with/without net-metering), three phase whole current Smart Meters (with/without net-metering), LT-CT operated three phase Smart Meters (with/without net-metering), and CT/PT operated three phase Smart meters to be installed;*

<The total number of smart meters to be installed should be based upon As-Is consumer database as well as projected load growth in the selected AMI Project Area during the Contract Period. Accordingly, the Utility should provide the appropriate quantity of smart meters to be installed for the AMI project based on the above consideration in Form 1 (Financial Bid) given in Section 5 of the RfP. AMISP shall provide meter LTCTs for LTCT meters as per the specifications provided by the Utility. Utility shall provide CTPTs to

AMISP for HT-CTPT meters. In case Utility require AMISP to procure meter HT-CTPTs, the number and specifications for the same need to be provided by the Utility>

- III. *Total number of consumer by category (Industrial/ Commercial/ Government);*
- IV. *Substation information;*
- V. *Feeder information;*
- VI. *DT information;*
- VII. *Historical load growth in project area;*
- VIII. *Manpower deployed in the selected area(s) of operations;*

C) Non-Contiguous Electrical Locations (DTs/ Feeders/ Boundary meters):

- I. *Geographical location (Electrical division etc.)*
- II. *LT-CT operated three phase Smart Meters (with/without net-metering), and CT/PT operated three phase Smart meters to be installed;*

<The total number of smart meters to be installed should be based upon As-Is consumer database as well as projected load growth in the selected AMI Project Area during the Contract Period. Accordingly, the Utility should provide the appropriate quantity of smart meters to be installed for the AMI project based on the above consideration in Form 1 (Financial Bid) given in Section 5 of the RfP. AMISP shall provide meter LTCTs for LTCT meters as per the specifications provided by the Utility. Utility shall provide CTPTs to AMISP for HT-CTPT meters. In case Utility require AMISP to procure meter HT-CTPTs, the number and specifications for the same need to be provided by the Utility>

- III. *Total number of meters by category (DTs/ Feeders/ Boundary meters) and existing number of tagged consumers by category;*
- IV. *Substation information;*
- V. *Feeder information;*
- VI. *DT information;*
- VII. *AT&C loss information (including billing and collection efficiency), if available (at Feeder level etc.)*
- VIII. *Historical load growth in project area;*
- IX. *Manpower deployed in the selected area(s) of operations (Nodal officer/ single point of contact at Electrical division level etc.);*

D) Other Details:

- I. *Details regarding periodicity/ frequency of the integration, data parameters including feeder energy data/ formats to be sent and received, protocol(s) to identify and address exceptions, and concurrency requirements;*
- II. *Details on requirement of infrastructure for recharge through feature phones/ offline channels required by the Utility.*

<Assumption based on one kiosk per existing bill pay centre for a period of 3(three) years>]”

2. Section 6 Clause 1.4 (C) of the SBD shall be modified as follows:

(C) Consumer indexing on de-novo basis for

- i. *Contiguous electrical locations as mentioned in Clause 1.2 (A) in the selected AMI Project Area along with its regular updates during contract period as per Clause 4 of this Section.*
 - ii. *Non-contiguous electrical locations as mentioned in Clause 1.2 (C), i.e., Consumer indexing with DTs on de-novo basis along with its regular updates during contract period as per Clause 4 of this Section; and feeder to DT indexing on de-novo basis for all DTs in along with its regular updates during contract period as per Clause 4 of this Section.”*
3. Section 6 Clause 2.4 of the SBD: A new table on key use cases to be enabled by the AMISP for Non-contiguous electrical locations as mentioned in Clause 1.2 (C) shall be added below the existing use cases table:

“The key use cases to be enabled by AMISP for contiguous electrical locations as mentioned in 1.2 (A) and non-contiguous electrical locations as mentioned in 1.2 (B) are provided below. Please note that these are illustrative list of use cases only and is not an exhaustive list. Further please note that all IS Standards shall be applicable.

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
1.	Collection of Daily Meter Profile			
1.1	<i>At scheduled frequency HES should pull the Daily Meter Data from Smart Meter over communication Channel</i>	<i>HES</i>	<i>Meter</i>	<i>Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF, Non-critical Event Code / Date</i>
1.2	<i>Meter should send the data to HES. Provision for retrieval should be there if Meter data is not collected within time. Consumption details including non-critical events will be in 15 min/30 min block data, and data could be incremental to what was sent by meter in preceding instance</i>	<i>Meter</i>	<i>HES</i>	<i>Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF, Non-critical Event Code / Date</i>
1.3	<i>HES should send the data to MDM</i>	<i>HES</i>	<i>MDM</i>	<i>Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF</i>
1.4	<i>MDM should send the required parameter to Prepaid system for daily charge calculation at least once on daily basis</i>	<i>MDM</i>	<i>Prepaid Engine</i>	<i>Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF, Non-critical Event Code / Date</i>
2.	Monthly Billing profile collection			
2.1	<i>Command from Billing system triggered and send to MDM / HES for collection of Monthly billing Data</i>	<i>Billing System</i>	<i>MDM / HES</i>	<i>Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF, Non-critical Event Code / Date</i>

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
2.2	At scheduled frequency HES should pull the monthly meter data from Smart Meter over the communication channel	HES	Meter	Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF, Non-critical Event Code / Date
2.3	Meter should send the data to HES. Provision for retrieval should be there if Meter data is not collected within time.	Meter	HES	Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF, Non-critical Event Code / Date
2.4	HES should decrypt and validate the data collected and send to MDM	HES	MDM	Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF, Non-critical Event Code / Date
2.5	MDM should send the required parameter to Billing system for Monthly Bill calculation	MDM	Billing Engine	Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF, Non-critical Event Code / Date
3.	Remote Meter disconnection			
3.1	Meter disconnect operation command after wallet balance calculation	Prepaid Engine/ Billing system	MDM	Meter Number, group of meters, instruction to close switch
3.2	Disconnection alert sent to consumer	MDM	Billing System	Meter Number, group of meters, instruction to close switch
3.3	Meter disconnection operator command	MDM	HES	Meter number, action (disconnect)
3.4	Consumer meter disconnection	HES	Meter	Meter Number, switch status
3.5	Disconnection Status Update	Meter	HES	Meter Number, switch status
3.6	Disconnection Status Update	HES	MDM	Meter Number, switch status
4.	Remote Meter Reconnection			
4.1	Meter reconnect operation command after wallet recharge Billing	Billing system/ Prepaid Engine	MDM	Meter Number, group of meters, instruction to close switch
4.2	Meter reconnect operation command	MDM	HES	Meter Number, group of meters, instruction to close switch
4.3	Consumer meter reconnection	HES	Meter	Meter number, action (reconnect)
4.4	Reconnection Status Update	Meter	HES	Meter number, action (reconnect)

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
4.5	Reconnection Status Update	HES	MDM	Meter number, action (reconnect)
5.	Utility detects tampering at consumer site			
5.1	High priority events captured by Meter sent to HES as and when occurred	Meter	HES	Meter Number, event date & time, event Code /description
5.2	High priority events reach MDM for further action.	HES	MDM	Meter Number, event date & time, event Code /description
5.3	Share with WFM to Notify utility personnel for site inspection	MDM	WFM	Consumer number, Meter Number, Tamper code, address
5.4	On analysis and detection of valid tamper event or malfunction, the tamper event must be sent / pushed by the meter to the HES /MDM	Meter	HES/ MDM	Consumer number, meter number, action to be triggered (disconnect), action date & time
5.5	HES sends disconnect command to meter	HES	Meter	Meter Number, action (disconnect)
5.6	Tamper event shared with CIS/CRM. Billing determinants are updated for tamper invoicing	MDM	CIS / CRM	Meter Number, event date & time, event Code /description
5.7	Meter re-connection order once tamper issue is resolved	MDM	HES	Meter number, action (re-connect)
5.8	HES sends re-connect command to meter	HES	Meter	Meter Number, action (re-connect)
6.	Missed interval readings			
6.1	On identifying missed interval, HES will re-acquire data for the missing period from meter	HES	Meter	Meter Number, from date & time, to date & time (for which data is missing)
6.2	On receiving data request command, meter will send data to HES	Meter	HES	Meter Number, reading date & time, kW, kVA, kWh, kVAh
6.3	Missed Interval and Reads Data acquired by MDM	HES	MDM	Meter Number, readings with date & time
7.	Consumer connection outage/restoration event			
7.1	Outage/restore event recorded by meter is sent to HES as and when event occurs	Meter	HES	Meter Number, Outage / restoration Date / Time, Power On or Off count
7.2	Outage / Restoration Notification	HES	MDM	Meter Number, Outage / restoration Date / Time, Power On or Off count

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
7.3	Sharing Outage / Restoration Notification	MDM	OMS/CIS-CRM	Meter Number, Outage / restoration Date / Time, Power On or Off count
7.4	Meter read request from OMS to identify service outage / restoration	OMS	MDM → HES	Meter Number,
7.5	Meter responds to event poll from HES	Meter	HES	Meter number, Status (live/dead)
8.	Remote firmware upgrades/ meter configuration changes			
8.1	Remote firmware upgrade	HES	Meter	Firmware
8.2	Configuration Commands: Change tariff parameters, Synchronize clock, Registers reset (status, max, tampering)	HES	Meter	Meter number, tariff parameters, registers status, event type and priority
8.3	Status update of Firmware / Configuration	Meter	HES	
9.	Load monitoring at demand side			
9.1	When there is a load violation event recorded in the meter, the information is sent to the CC	Meter	HES → MDM	Meter Number, max demand, date & time of load violation
10.	Time synchronization			
10.1	Synchronizing RTCs of meters / DCUs/ACP	HES	DCU/Meter	Time Setting
11.	Metering network changes			
11.1	Change / new installation in Meter / DCU Network Hierarchy	Meter / DCU	HES	Network identification info including DCUs
11.2	Change / new installation in Meter / DCU Network Hierarchy	HES	MDM	Network identification info including DCU
12.	New consumer connection			
12.1	Receive verified pre & post-paid new consumer requests	CIS-CRM/ Billing	MDM	Consumer name, address. Connection request etc.
12.2	Generate meter installation order	MDM	WFM	Consumer ID & details
12.3	Receive meter installation report	WFM	MDM	Meter number, DT no, Feeder & reading
12.4	Requesting instant, interval & events data from meters	MDM	HES → Meter	Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.)
12.5	Acquire instant, interval / events data from meter by	HES	MDM	Meter Number, Reading date & time, reading

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
	<i>HES which then reaches MDM system.</i>			<i>params (kWh, kVAh, kW etc.)</i>
12.6	<i>Once new meter remote read verification is over, confirm new connection with other applications</i>	<i>MDM</i>	<i>Billing / CIS-CRM</i>	<i>Consumer ID, Consumer address, Meter Number, initial reading etc.</i>
13.	<i>Migrate post-paid consumer to prepaid mode</i>			
13.1	<i>Receive migration request</i>	<i>CIS-CRM/ Billing</i>	<i>MDM</i>	<i>Migration request for post-paid consumer with profile</i>
13.2	<i>Setup prepaid consumer profile in prepaid engine. If no change in meter is required, skip next two steps</i>	<i>MDM</i>	<i>Prepaid Engine</i>	<i>Prepaid consumer profile</i>
13.3	<i>Generate prepaid meter installation order if required</i>	<i>MDM</i>	<i>WFM</i>	<i>Consumer ID & details</i>
13.4	<i>Receive meter installation report</i>	<i>WFM</i>	<i>MDM</i>	<i>Meter number, DT no, Feeder & reading</i>
13.5	<i>Enable prepaid mode in meter</i>	<i>Prepaid engine</i>	<i>HES → Meter</i>	<i>Engineering token</i>
13.6	<i>Receive activation confirmation</i>	<i>HES</i>	<i>MDM</i>	<i>Activation status</i>
13.7	<i>Request instant, interval & events data from meter</i>	<i>MDM</i>	<i>HES → Meter</i>	<i>Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.)</i>
13.8	<i>Acquire instant, interval / events data from meter by HES which then reaches MDM system.</i>	<i>HES</i>	<i>MDM</i>	<i>Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.)</i>
13.9	<i>Once meter remote read verification is over, share migration request completion detail with other modules</i>	<i>MDM</i>	<i>Billing / CIS-CRM</i>	<i>Prepaid consumer profile</i>
14.	<i>Migrate prepaid consumer to post-paid mode</i>			
14.1	<i>Receive migration request</i>	<i>CIS-CRM</i>	<i>MDM</i>	<i>Migration request for prepaid consumer with profile</i>
14.2	<i>Request meter data</i>	<i>MDM</i>	<i>HES → Meter</i>	<i>Meter Number, Consumer ID</i>
14.3	<i>Acquire instant, interval / events data from meter by HES which then reaches MDM system.</i>	<i>HES</i>	<i>MDM</i>	<i>Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.) with balance credit</i>

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
14.4	Send meter disconnect command	MDM	HES → Meter	
14.5	Receive connection status	HES	MDM	Disconnect status
14.6	Enable post-paid mode in meter	MDM	HES → Meter	Engineering token
14.7	Receive activation of post-paid mode	HES	MDM	Activation Status
14.8	Request instant, interval & events data from meter	MDM	HES → Meter	Meter Number, Consumer ID
14.9	Acquire instant, interval / events data from meter by HES which then reaches MDM system.	HES	MDM	Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.)
14.10	Once meter remote read verification is over, share migration request completion detail with other modules	MDM	Billing / CIS-CRM	Post-paid consumer profile and meter data along with credit balance
15.	Consumer Registration in Consumer Portal/ App			
15.1	Consumer clicks on new user on consumer portal/ App, provides RMN or email ID and submits data	Portal/ App	CIS/CRM	Request for registration with RMN/email ID
15.2	Utility receives request for registration and sends OTP after verification	CIS/CRM	Email/Message Gateway	OTP
15.3	Consumer submits OTP	Portal/ App	CIS/CRM	
15.4	Consumer receives registration detail	CIS/CRM	Email Gateway	Login ID and default password
15.5	Consumer submits first login request	Portal/ App	CIS/CRM	
15.6	System seeks password change	CIS/CRM	Portal/ App	
15.7	Consumer changes default password	Portal/ App	CIS/CRM	
16.	Consumer Access to Consumption, Billing & Profile Data			
16.1	Consumer logs in to Portal/ App	Portal/ App	MDM	
16.2	Consumer Profile for Portal/ App	CIS-CRM	MDM → Portal/ App	Name, Account, Address, Service Points, K Number
16.3	Consumption Data	MDM	Portal/ App → UI	Consumption profile

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
16.4	Billing (post-paid) / Credit Balance (prepaid)	Billing → MDM	Portal/ App	Post-paid Billing history/ Current Bill, Prepaid Recharge history
17.	Prepaid Consumer Recharge			
17.1	Consumer logs into Portal / Mobile App	Mob App / Portal	UI	Login
17.2	Consumer fills-in required detail in UI and requests recharge	UI→ Prepaid App	Payment Gateway	Consumer ID, Recharge amount
17.3	Consumer selects payment method	Payment Gateway	Net banking /Credit Card / Wallet etc.	
17.4	Consumer receives payment acknowledgement	Payment Gateway	Prepaid App→Portal→ UI	
17.5	Calculate credit balance for prepaid consumer & update prepaid meter	Prepaid App	HES→Meter	Consumer credit balance (virtual token)
17.6	Notify credit balance to consumer	Prepaid App	Email/SMS Gateway	Credit Balance
18.	Post-Paid Consumer Bill Payment			
18.1	Consumer logs into Portal / Mobile App	Mob App / Portal	UI	Login
18.2	Consumer is presented with Billing history and current outstanding Bill	Billing → MDM	Portal/ App→UI	Outstanding Bill
18.3	Consumer requests bill payment. Option to download bill	UI→Billing	Payment Gateway	
18.4	Consumer selects payment method	Payment Gateway	Net banking /Credit Card / Wallet etc.	
18.5	Consumer receives payment acknowledgement	Payment Gateway	Billing→ Portal/ App→UI	
18.6	Payment acknowledgement through email/SMS	Billing	Email/SMS Gateway	Payment acknowledgement
19.	Consumer Service Request			
19.1	Consumer logs in to Portal/ App	Portal/ App	CIS/CRM	
19.2	Consumer requests for service	UI	CIS/CRM	Service request
19.3	System assigns SRN & sends acknowledgement	CIS/CRM	Portal/ App→UI,	

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
			Email/SMS Gateway	
19.4	System resolves request & updates consumer records	CIS/CRM	Portal/ App→UI, CIS/CRM	
19.5	System closes SRN	CIS/CRM	Email/SMS Gateway	
20.	Consumer Complaints			
20.1	Consumer logs into Portal/ App	Portal/ App	CIS/CRM	
20.2	Consumer registers complaint	UI	CIS/CRM	Specific complaint
20.3	System assigns CRN & sends acknowledgement	CIS/CRM	Portal/ App→UI, Email/SMS Gateway	
20.4	System assigns resolution based on nature of complaint	CIS/CRM	CIS / OMS / WFM	
20.5	Target system reports completion of complaint	OMS / WFM	CIS/CRM	
20.6	System updates records and closes CRN	CIS/CRM	CIS, Email/SMS Gateway	
21.	Demand read of meters from consumer premises			
21.1	Requesting instantaneous, interval, load profile & events data from meters	MDM	HES→Meter	Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.)
21.2	Acquire instant, interval, load profile & events data from meters by HES which then reaches MDM system.	Meter→HES	MDM	Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.)
22.	Staff User Access to Utility Portal			
22.1	User logs in to Portal	Portal	MDM	Login with appropriate credentials
22.2	User selects available functions	MDM	Portal → UI	
22.3	User logs out	Portal → UI	MDM	

The key use cases to be enabled by AMISP for non-contiguous electrical locations as mentioned in Section 6 Clause 1.2 (C) are provided below. Please note that these are illustrative list of use cases only and is not an exhaustive list. Further please note that all IS Standards shall be applicable.

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
1.	Collection of Daily Meter Profile			
1.1	At scheduled frequency HES should pull the Daily Meter Data from Smart Meter over communication Channel	HES	Meter	Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF, Non-critical Event Code / Date
1.2	Meter should send the data to HES. Provision for retrieval should be there if Meter data is not collected within time. Consumption details including non-critical events will be in 15 min/30 min block data, and data could be incremental to what was sent by meter in preceding instance	Meter	HES	Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF, Non-critical Event Code / Date
1.3	HES should send the data to MDM	HES	MDM	Meter Number, reading date & time, kW, kVA, kWh, kVAh, PF
2.	Utility detects tampering at meter site			
2.1	High priority events captured by Meter sent to HES as and when occurred	Meter	HES	Meter Number, event date & time, event Code /description
2.2	High priority events reach MDM for further action.	HES	MDM	Meter Number, event date & time, event Code /description
2.3	Share with WFM to Notify utility personnel for site inspection	MDM	WFM	Meter Number, Tamper code, address
2.4	On analysis and detection of valid tamper event or malfunction, the tamper event must be sent / pushed by the meter to the HES /MDM	Meter	HES/ MDM	Meter number, action date & time
3.	Missed interval readings			
3.1	On identifying missed interval, HES will re-acquire data for the missing period from meter	HES	Meter	Meter Number, from date & time, to date & time (for which data is missing)
3.2	On receiving data request command, meter will send data to HES	Meter	HES	Meter Number, reading date & time, kW, kVA, kWh, kVAh
3.3	Missed Interval and Reads Data acquired by MDM	HES	MDM	Meter Number, readings with date & time
4.	Meter connection outage/restoration event			

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
4.1	Outage/restore event recorded by meter is sent to HES as and when event occurs	Meter	HES	Meter Number, Outage / restoration Date / Time, Power On or Off count
4.2	Outage / Restoration Notification	HES	MDM	Meter Number, Outage / restoration Date / Time, Power On or Off count
4.3	Sharing Outage / Restoration Notification	MDM	OMS/CIS-CRM	Meter Number, Outage / restoration Date / Time, Power On or Off count
4.4	Meter read request from OMS to identify service outage / restoration	OMS	MDM → HES	Meter Number,
4.5	Meter responds to event poll from HES	Meter	HES	Meter number, Status (live/dead)
5.	Remote firmware upgrades/ meter configuration changes			
5.1	Remote firmware upgrade	HES	Meter	Firmware
5.2	Configuration Commands: Change tariff parameters, Synchronize clock, Registers reset (status, max, tampering)	HES	Meter	Meter number, tariff parameters, registers status, event type and priority
5.3	Status update of Firmware / Configuration	Meter	HES	
6.	Load monitoring at demand side			
6.1	When there is a load violation event recorded in the meter, the information is sent to the CC	Meter	HES → MDM	Meter Number, max demand, date & time of load violation
7.	Time synchronization			
7.1	Synchronizing RTCs of meters / DCUs/ACP	HES	DCU/Meter	Time Setting
8.	Metering network changes			
8.1	Change / new installation in Meter / DCU Network Hierarchy	Meter / DCU	HES	Network identification info including DCUs
8.2	Change / new installation in Meter / DCU Network Hierarchy	HES	MDM	Network identification info including DCU
9.	New meter connection			
9.2	Generate meter installation order	MDM	WFM	Meter Number & details
9.3	Receive meter installation report	WFM	MDM	Meter number, DT no, Feeder & reading

Sr.	Use Case Activity Description	Source	Destination	Info Exchanged
9.4	Requesting instant, interval & events data from meters	MDM	HES → Meter	Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.)
9.5	Acquire instant, interval / events data from meter by HES which then reaches MDM system.	HES	MDM	Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.)
9.6	Once new meter remote read verification is over, confirm new connection with other applications	MDM	Billing / CIS-CRM	Meter address, Meter Number, initial reading etc.
10.	Demand read of meters from meter premises			
10.1	Requesting instantaneous, interval, load profile & events data from meters	MDM	HES→Meter	Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.)
10.2	Acquire instant, interval, load profile & events data from meters by HES which then reaches MDM system.	Meter→HES	MDM	Meter Number, Reading date & time, reading params (kWh, kVAh, kW etc.)
11.	Staff User Access to Utility Portal			
11.1	User logs in to Portal	Portal	MDM	Login with appropriate credentials
11.2	User selects available functions	MDM	Portal → UI	
11.3	User logs out	Portal → UI	MDM	

4. Section 6 Clause 4 of the SBD:

“4. Consumer Indexing

Consumer indexing will be carried out/verified for the incoming population of smart meters for end-to-end metering at contiguous electrical locations in the selected AMI Project Area *and for dispersed metering of DTs/ Feeders at non-contiguous electrical locations in the selected AMI Project Area*. For this a door-to-door survey shall be required for each meter installed and tallying it with the consumer related records (physical, electrical and commercial) available with the Utility. In establishing the linkage of the consumer meter to the electric network, the asset (including the meter) codification as used by the utility GIS (or as per standards set by the utility) shall be strictly followed. If the GIS asset database is available, the verified consumer data shall be uploaded into the GIS database by the Utility for a single point of truth, presentation and secondary evaluation. If GIS is not available, then the AMISP is required to create a standalone consumer indexing database. This database of electrical indexing shall have the following broad parameters:

...”

5. Section 6 Clause 6 of the SBD: Following clause shall be included in Clause 6.2.2 (*below the table on list of reports*):

“These reports shall be generated for both contiguous as well as non-contiguous electrical locations. However, for non-contiguous electrical locations as mentioned in Clause 1.2 (C), all relevant reports shall be generated as per scope except for those that are not technically feasible for example, consumer related reports like revenue analytics, load recording of consumers etc.”

6. Section 6 Clause 9.4 of the SBD: A new table on minimum performance tests to be carried out as part of the Site Acceptance test (SAT) for Non-contiguous electrical locations as mentioned in Clause 1.2 (C) shall be added below the existing use cases table:

“9. Tests, Inspections and Management of the Quality Assurance / Quality Control Program”

9.4 Site Acceptance Test:

... The list of final tests to be carried out in the field shall be listed in the site-testing document by the AMISP. Among others, the site testing document shall include the following minimum performance tests for end-to-end metering carried out in contiguous electrical locations:

<i>Data Type</i>	<i>Performance Requirement</i>
1. Load Profile Data Read¹	
<i>One-month block load profile for installed meters</i>	<i>From 98% of the meters in 12 hours after the midnight</i>
2. Billing Profile Data Read²	
<i>Billing profile data for installed meters</i>	<i>From 98% of the meters in 12 hours after the midnight</i>
3. On-Demand Remote reads of meters	
<i>Collection of 7 days of interval energy data and the current total accumulated energy from a selected individual meter</i>	<i>Within 2 minutes</i>
4. Remote connect / disconnect	
<i>Action to response for individual meter</i>	<i>Less than 3 mins</i>
5. Updating of data on consumer portal/ app	
<i>Updating of individual consumer data on portal/ app after receiving the data in MDM</i>	<i>Action performed for active on portal consumers within 5 minutes after receiving the data in MDM</i>
6. Ping Response with acknowledgement/ response for selected meters	
<i>For installed meters</i>	<i>Action performed at 98% of meters within [5] minute; and</i>
<i>For an individual meter</i>	<i>Action performed within 3 seconds</i>

¹ This performance test shall be done during SAT, from second lot of meters onwards

² This performance test shall be done during SAT, from second lot of meters onwards

<i>Data Type</i>	<i>Performance Requirement</i>
7. Meter loss and restoration of supply	
<i>Receiving of alert for all affected AMI meters</i>	<i>Alert to be received within 3 minutes for 60% of meters</i>
8. Meter Tamper Alerts	
<i>Receiving of alert for an individual meter</i>	<i>Alert to be received within 3 minutes</i>
9. Power Quality Alerts	
<i>Receiving of alert for an individual meter</i>	<i>Alert to be received within 5 minutes</i>
10. Firmware upgrade with acknowledgement/ response for selected meters	
<i>For installed AMI meters (for a batch of at least 20% of installed base)</i>	<i>Action performed at 99% of meters within [18] hours; and</i>
	<i>Action performed at 99.9% of meters within [24] hours</i>
11. Remotely altering settings in meter	
<i>For installed AMI meters (for a batch of at least 20% of installed base)</i>	<i>Action performed at 99% of meters within [8] hours; and</i>
	<i>Action performed at 99.9% of meters within [24] hours</i>
12. Remotely read events logs	
<i>For reading the full event log for installed AMI meter</i>	<i>Action performed at 90% of meters within [30] minutes; and</i>
	<i>Action performed at 99% of meters within 1 hour; and</i>
	<i>Action performed at 99.9% of meters within [6] hours.</i>
13. VEE processing	
<i>For all installed meters</i>	<i>Action performed in [15] mins</i>
14. Computation of Billing Determinants	
<i>For all installed meters</i>	<i>Action performed in [2] hours</i>
15. Prepaid Recharge	
<i>Payment success to consumer acknowledgement</i>	<i>Within 5 mins</i>
<i>Payment success to meter update (From MDM to HES to Meter)</i>	<ul style="list-style-type: none"> • <i>From 90% of meters within 30 minutes</i> • <i>From 99% of meters within 1 (one) hour</i>
16. Utility User Interface	

<i>Data Type</i>	<i>Performance Requirement</i>
<i>Manual data entry of new value appears on screen</i>	<i>Less than 6 secs</i>
<i>Acknowledgement of any action request</i>	<i>Within 3 secs</i>
<i>Display update rate</i>	<i>2 secs</i>
17. Disaster Recovery Capability (Refer to Clause 2.7.3.3.9 of this Section for details)	
<i>Recovery Time Objective (RTO)</i>	<i>[4 hours] as agreed</i>
<i>Recovery Point Objective (RPO)</i>	<i>[2 hours] as agreed</i>
18. On-Demand Remote reads of meters	
<i>Collection of 7 days interval energy data and the current total accumulated energy from a group of 10% of installed base of meters (configurable)</i>	<i>95% complete within 2 hrs 100% complete within 4 hrs</i>

Also, among others, the site testing document shall include the following minimum performance tests for DT/ Feeder metering carried out in non-contiguous electrical locations:

<i>Data Type</i>	<i>Performance Requirement</i>
1. Load Profile Data Read³	
<i>One-month block load profile for installed meters</i>	<i>From 98% of the meters in 12 hours after the midnight</i>
2. On-Demand Remote reads of meters	
<i>Collection of 7 days of interval energy data and the current total accumulated energy from a selected individual meter</i>	<i>Within 2 minutes</i>
3. Ping Response with acknowledgement/ response for selected meters	
<i>For installed meters</i>	<i>Action performed at 98% of meters within [5] minute; and</i>
<i>For an individual meter</i>	<i>Action performed within 3 seconds</i>
4. Meter loss and restoration of supply	
<i>Receiving of alert for all affected AMI meters</i>	<i>Alert to be received within 3 minutes for 60% of meters</i>
5. Meter Tamper Alerts	
<i>Receiving of alert for an individual meter</i>	<i>Alert to be received within 3 minutes</i>
6. Power Quality Alerts	
<i>Receiving of alert for an individual meter</i>	<i>Alert to be received within 5 minutes</i>
7. Firmware upgrade with acknowledgement/ response for selected meters	

³ This performance test shall be done during SAT, from second lot of meters onwards

<i>Data Type</i>	<i>Performance Requirement</i>
<i>For installed AMI meters (for a batch of at least 20% of installed base)</i>	<i>Action performed at 99% of meters within [18] hours; and</i>
	<i>Action performed at 99.9% of meters within [24] hours</i>
8. Remotely altering settings in meter	
<i>For installed AMI meters (for a batch of at least 20% of installed base)</i>	<i>Action performed at 99% of meters within [8] hours; and</i>
	<i>Action performed at 99.9% of meters within [24] hours</i>
9. Remotely read events logs	
<i>For reading the full event log for installed AMI meter</i>	<i>Action performed at 90% of meters within [30] minutes; and</i>
	<i>Action performed at 99% of meters within 1 hour; and</i>
	<i>Action performed at 99.9% of meters within [6] hours.</i>
10. VEE processing	
<i>For all installed meters</i>	<i>Action performed in [15] mins</i>
11. On-Demand Remote reads of meters	
<i>Collection of 7 days interval energy data and the current total accumulated energy from a group of 10% of installed base of meters (configurable)</i>	<i>95% complete within 2 hrs 100% complete within 4 hrs</i>

7. Other terms and conditions of the SBD shall remain unchanged and shall apply for the additional scope of work as well.

Proposal:

The above proposed addendum for allowing usage option of SMC meter boxes and key changes to be made in the existing AMISP SBD in case DISCOM opts to undertake the Smart System Metering of non-Phase-I areas alongwith AMISP RFP for Phase-I areas, may be considered for approval.

No. CE(Dist.)/Cost Data/2019-20/ 18014

Date: 27.06.2019.

Circular : Cost Data 2019-20

Sub: Implementation of Cost Data 2019-20.

The cost data 2018-19 was approved vide B.R. 1273 dtd. 05.05.2018. Same is being used presently. Committee for revision in Cost Data was formed in accordance with the B.R. 1273.

The Cost Data Committee after considering all factors submitted its recommendation for Cost Data 2019-20. The Cost Data with revised material rates and centages was put up for approval of Board of Directors. The Board of Directors have accorded approval for Cost Data 2019-20 vide B.R. 1748 dtd. 01.06.2019.

1. Material Cost:

The material rates have been revised considering the market conditions and other factors such as CPI, IEEMA etc.

2. Centages:

The centages have been revised considering various representations of agencies during meetings. Following centages have been revised:

- a. **Contingency** : The present percentage of contingency is 0.5%. The same is revised to 2.5%.
- b. **Insurance, Labour & Finance Cost**: The percentage of Insurance, Labour & Finance Cost in the present cost data is 2.5%. The same is revised to 3%.
- c. **Turnkey Charges**: The turnkey charges (profit) in present Cost Data is 4%. The same is revised to 5%.

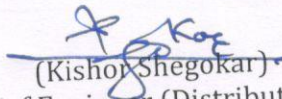
The revised centages for full turnkey contracts are as under:

Sr. No.	Particulars	Inside Sub-station				Outside Sub-station			
		Exist. O/H	DPR Amt	Prop. O/H	DPR Amt	Exist.	DPR Amt.	Prop. O/H	DPR Amt
A	Ex-Works Price		100		100		100		100
1	Transportation on material	4.00%	4	4.00%	4	4.00%	4	4.00%	4
2	T&P on material cost	1.00%	1	1.00%	1	1.00%	1	1.00%	1
3	Contingencies on material	0.50%	0.5	2.50%	2.5	0.50%	0.5	2.50%	2.5
4	Erection cost on material	5.00%	5	5.00%	5	15.00%	15	15.00%	15
5	Contractor supervision charges on material	5.00%	5	5.00%	5	5.00%	5	5.00%	5
6	Insurance, Labour & Finance Cost	2.50%	2.5	3.00%	3	2.50%	2.5	3.00%	3
B	Total Services		18		20.5		28		30.5
C	Sub-Total		118		120.5		128		130.5
7	Turnkey Charges (Profit)	4.00%	4.72	5.00%	6.025	4.00%	5.12	5.00%	6.525
D	Tender Centages		22.72%		26.525%		33.12%		37.025%
E	Tender Cost		122.72		126.525		133.12		137.025
8	GST	18%	22.09	18%	22.77	18%	23.96	18%	24.66
9	Price Escalation on cost of material	5%	5	5%	5	5%	5	5%	5
F	Sub-Total		149.81		154.30		162.08		166.69
10	H.O. Supervision Charges @1.3% of material cost and erection charges	1.30%	1.365	1.30%	1.365	1.30%	1.495	1.30%	1.495
11	Interest during Construction on F	3.50%	5.24	3.50%	5.40	3.50%	5.67	3.50%	5.83
G	Grand Total (DPR Cost)		156.42		161.06		169.25		174.02
H	Percentage of Centages		56.42%		61.06%		69.25%		74.02%

3. Conductor:

Considering the request of the field offices and technical aspects, AAC Ant conductor has been replaced by 55 sq.mm AAAC conductor. AAC Gnat and 34 sq.mm AAAC conductors have been replaced by ACSR Weasel conductor. The activities have been revised accordingly.

The Cost Data 2019-20 is to be implemented with immediate effect. The revised standard activities have been emailed up to Circle office level. In case of any discrepancies please inform the undersigned.


(Kishor Shegokar)
Chief Engineer (Distribution)

Copy s.w.r. to:

- 1) The Director (Operations/Projects/Commercial/Finance), MSEDCL, H.O., Prakashgad, Mumbai.
- 2) The Executive Director (Operations/Infra/Projects/B&R), MSEDCL, H.O., Prakashgad, Mumbai.
- 3) The Regional Director (Kalyan / Pune / Aurangabad / Nagpur) Regional office.
- 4) The Chief Engineer, H.O., Prakashgad, Mumbai. - All section.
- 5) The Chief General Manager (T/E) / (I/T).
- 6) The Chief Engineer (O&M) - All Zone offices.

Copy to:

- 1) The OSD to CMD, MSEDCL, H.O., Prakashgad, Mumbai.
- 2) The Superintending Engineer (O&M), All O&M Circles
- 3) The Superintending Engineer (Infra), All O&M Zones.

MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.

Proposed Cost Data 2019-20

Item Code No. 0101

Cost data for 33/11 KV, 1x5 MVA Substation (Outdoor)

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
33 KV SIDE					
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	121541.00	121541.00
6	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
9	Earthing complete as per Sheet no.2	Set	1	240980.00	240980.00
10	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
11	33 KV P.T.	Nos	3	18876.00	56628.00
12	33 kv C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
13	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
14	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
15	33 kv Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
16	Structure for 33 KV CT & PT as per Sheet no.3	No	1	48071.00	48071.00
17	G.I.Nut Bolts	KG	150	82.90	12435.00
B 11 KV SIDE					
18	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
19	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
20	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	1	256151.20	256151.20
21	11 kv Pin Insulators with G.I. Pins	No.	12	135.00	1620.00
22	Clamps and Connectors as per Sheet no.5	No.	1	189486.00	189486.00
23	Structure for 11 KV Main Bus as per Sheet no.6	No.	1	213971.20	213971.20
24	S/S Yard lighting as per Sheet no.7	No.	1	189411.00	189411.00
25	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
26	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8.	No.	1	195591.40	195591.40
27	Control cables for S/S as per Sheet no.9	No.	1	85383.45	85383.45
28	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

6175812.25

Cost of material

1	Transportation on material	4.00%	247032
2	T&P on material cost	1.00%	61758
3	Contigencies on material	2.50%	154395
5	Erection cost on material	5.00%	308791
6	Contractor supervision charges on material	5.00%	308791
7	Insurance , Labour & Finance Cost	3.00%	185274

Service Cost

1266042

Sub-Total

7441854

8	Turnkey Charges	5.00%	372093
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Total 7813946

Civil Works As per Sheet 'C' No. 1 7233264

Total Cost of Estimate

15047211

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	9946763	7813946
Civil Works As per Sheet 'C'	9219583	7233264
Total Cost of the Estimate	19166346	15047211

Sheet
No.1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x5 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x5 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x5 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	256151.20

Sheet
No. 5

Cost data for Clamps & Connectors at 1x 5 MVA, 3311 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	189486.00

Sheet
No.6

Cost data for Structure of 11 KV Main Bus at 1x5MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Sheet
No.7

Cost data for Yard Lighting of 1 x 5 MVA , 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	12	6300.00	75600.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	12	4815.00	57780.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cmt	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	189411.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x5 MVA S/S. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	195591.40

Cost data for Control cable 1 X 5 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Description	Amount
1	Land Development (As per table A)	242640.00
2	Control room (As per table B) outdoor	2087239.00
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.20
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D)	408296.00
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720.00
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	0.00
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0.00
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0.00
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091.00
14	Borewell including pumpset and allied accessories. (As per table I)	101071.00
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.80
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225.00
	Total=	7233264.49

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	121541.00	121541.00
6	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
9	Earthing complete as per Sheet no.2	Set	1	267210.00	267210.00
10	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
11	33 KV P.T.	Nos	3	18876.00	56628.00
12	33 kv C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
13	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
14	C&R panel for 33 KV Transformer with Diff. Protection	No	1	62334.00	62334.00
15	33 kv Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
16	Structure for 33 KV CT & PT as per Sheet no.3	No	1	48071.00	48071.00
17	G.I.Nut Bolts	KG	150	82.90	12435.00
B	11 KV SIDE				
18	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
19	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
20	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	1	327608.20	327608.20
21	11 kv Pin Insulators with G.I. Pins	No.	12	135.00	1620.00
22	Clamps and Connectors as per Sheet no.5	No.	1	189486.00	189486.00
23	Structure for 11 KV Main Bus as per Sheet no.6	No.	1	266852.20	266852.20
24	S/S Yard lighting as per Sheet no.7	No.	1	189411.00	189411.00
25	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
26	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8.	No.	1	199541.40	199541.40
27	Control cables for S/S as per Sheet no.9	No.	1	85383.45	85383.45
28	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**8019539.25**

1	Transportation on material	4.00%	320782
2	T&P on material cost	1.00%	80195
3	Contigencies on material	2.50%	200488
5	Erection cost on material	5.00%	400977
6	Contractor supervision charges on material	5.00%	400977
7	Insurance , Labour & Finance Cost	3.00%	240586

Service Cost**1644006****Sub-Total****9663545**

8	Turnkey Charges	5.00%	483177
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Total**10146722**

9	Civil Works As per Sheet 'C'	No.	1	7233264
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Total Cost of Estimate**17379987**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	12916270	10146722
Civil Works As per Sheet 'C'	9219583	7233264
Total Cost of the Estimate	22135853	17379987

Sheet
No.1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x 10 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Sheet
No.2

Cost data for Earthing Work at 1x 10 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	2000	48.50	97000.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1400	15.00	21000.00
4	Salt	Kg.	1400	7.00	9800.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	267210.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x10 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm2	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	327608.20

Sheet
No. 5

Cost data for Clamps & Connectors at 1x 10 MVA,3311 kv sub strn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	189486.00

Sheet
No.6

Cost data for Structure of 11 KV Main Bus at 1x 10MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm2	Rmt.	150	127.40	19110.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	266852.20

Sheet
No.7

Cost data for Yard Lighting of 1 x 10 MVA , 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	12	6300.00	75600.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	12	4815.00	57780.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cmt	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	189411.00

Sheet
No.8

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x10 MVA S/S. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Sheet
No.9

Cost data for Control cable 1 X 10 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

Safety items and T&P in sub-station:

Sr.No.	Description of material	Unit	Qty.	Rate (Rs.)	Amount(Rs.)
1	Safety Items as per the requirement of electrical inspector as under	L.S	1	9500.00	9500.00
	a) First Aid Box				
	b) Shock treatment chart				
	c) Rubber mats 8 mm thick				
	d) 4 Fire buckets with sand & M.S. Hooks / stand				
	e) Helmet				
	f) Hand gloves				
g) 2 Nos. Fire extinguisher					
2	SLD Board 11 KV side	No.	1	750.00	750.00
3	Sub-station Board (Name) with angle stand	No.	2	4000.00	8000.00
4	Danger Board in yard.	No.	10	50.00	500.00
5	Battery Accessories such as hydrometer, cell tester, Acid can, distilled water can, handgloves etc.	Set	1	900.00	900.00
6	2 no.s 8W CFL lamps with one suitable inverter (DC to AC)	Set	1	375.00	375.00
7	Earth tester 200 Amp. 2000 Ohm	No.	1	6300.00	6300.00
8	2.5 / 5 KV Megger (Manual)	No.	1	25000.00	25000.00
9	500 V Megger	No.	1	3500.00	3500.00
10	Digital Tong tester (1000 Amp., 500 V) With associated accessories.	No.	1	350.00	350.00
11	Digital Multi meter (10 Amp)	No.	1	2360.00	2360.00
12	Discharge rod for 33 KV	Set	1	950.00	950.00
13	Discharge rod for 11 KV	Set	1	950.00	950.00
14	Tool box with ratchet spanner, flat spanners, box spanner, plier, screwdriver, hammer, hacksaw with blades, chisel, files (Standard make)	No.	1	4000.00	4000.00
15	2 Cell torch	No.	2	400.00	800.00
16	3 Cell torch	No.	2	400.00	800.00
17	Aluminium ladder (Adjustable)	No.	1	3600.00	3600.00
18	Emergency Artificial respiration kit	Set	1	1820.00	1820.00
19	Name plate painting for all equipments	LS	1	600.00	600.00
				Total:	71055.00

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640.00
2	Control room (As per table B) outdoor	2087239.00
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.20
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D)	408296.00
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720.00
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	0.00
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0.00
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0.00
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091.00
14	Borewell including pumpset and allied accessories. (As per table I)	101071.00
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.80
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225.00
Total=		7233264.49

Item Code No.0103

Cost data for 33/11 kV 2 X 5 MVA New S/S(Outdoor)

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5	50510.00	252550.00
4	33 KV Post Insulator	Nos	6	918.00	5508.00
5	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
6	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
9	Earthing complete as per Sheet no.2	Set	2	240980.00	481960.00
10	Power Transformer 33/11 KV, 5 MVA	No	2	3003469.00	6006938.00
11	33 KV P.T.	Nos	3	18876.00	56628.00
12	33 kv C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
13	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
14	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	2	56858.00	113716.00
15	33 kv Pin Insulators with G.I. Pins	Nos	12	541.00	6492.00
16	Structure for 33 KV CT & PT as per Sheet no.3	No	2	48071.00	96142.00
17	G.I.Nut Bolts	KG	150	82.90	12435.00
B	11 KV SIDE				
18	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
19	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	274659.20	549318.40
20	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
21	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
22	Clamps and Connectors as per Sheet no.5	No.	1	251340.00	251340.00
23	Structure for 11 KV Main Bus as per Sheet no.6	No.	2	213971.20	427942.40
24	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
25	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
26	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	199541.40	199541.40
27	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
28	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material

11617773.10

1	Transportation on material	4.00%	464711	
2	T&P on material cost	1.00%	116178	
3	Contigencies on material	2.50%	290444	
5	Erection cost on material	5.00%	580889	
6	Contractor supervision charges on material	5.00%	580889	
7	Insurance , Labour & Finance Cost	3.00%	348533	
	Service Cost		2381643	
	Sub-Total		13999417	
8	Turnkey Charges	5.00%	699971	
	Total		14699387	
9	Civil Works As per Sheet 'C'	No.	1	7849000

Total Cost of Estimate

22548388

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	18711585	14699387
Civil Works As per Sheet 'C'	10004405	7849000
Total Cost of the Estimate	28715991	22548388

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 2x 5 MVA, 33/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 2x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	274659.20

Cost data for Clamps & Connectors at 2x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	251340.00

Cost data for structure of 11 kV Main Bus at 2 X 5 MVA,33/11 kV Sub-Station

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm2	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Cost data for Yard Lighting of 2X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data for Control cable 2 X 5 MVA, 33/11KV S/Strn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C

Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640.00
2	Control room (As per table B) outdoor	2087239.00
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.20
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D)	408296.00
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720.00
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.90
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091.00
14	Borewell including pumpset and allied accessories. (As per table I)	101071.00
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.80
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225.00
	Total=	7849000.39

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5	50510.00	252550.00
4	33 KV Post Insulator	Nos	6	918.00	5508.00
5	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
6	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
9	Earthing complete as per Sheet no.2	Set	2	240980.00	481960.00
10	Power Transformer 33/11 KV, 10 MVA	No	2	4687202.00	9374404.00
11	33 KV P.T.	Nos	3	18876.00	56628.00
12	33 kv C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
13	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
14	C&R panel for 33 KV Transformer with Diff. Protection	No	2	62334.00	124668.00
16	33 kv Pin Insulators with G.I. Pins	Nos	12	541.00	6492.00
17	Structure for 33 KV CT & PT as per Sheet no.3	No	2	48071.00	96142.00
18	G.I.Nut Bolts	KG	150	82.90	12435.00
B	11 KV SIDE				
19	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
20	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	346116.20	692232.40
21	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
22	11 kv Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
23	Clamps and Connectors as per Sheet no.5	No.	1	251340.00	251340.00
24	Structure for 11 KV Main Bus as per Sheet no.6	No.	2	266852.20	533704.40
25	S/S Yard lighting as per Sheet no.7	No.	1	216090.00	216090.00
26	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
27	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	199541.40	199541.40
28	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
29	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**15245078.10**

1	Transportation on material	4.00%	609803
2	T&P on material cost	1.00%	152451
3	Contigencies on material	2.50%	381127
5	Erection cost on material	5.00%	762254
6	Contractor supervision charges on material	5.00%	762254
7	Insurance , Labour & Finance Cost	3.00%	457352
	Service Cost		3125241
	Sub-Total		18370319
8	Turnkey Charges	5.00%	918516

Total**19288835**

9	Civil Works As per Sheet 'C'	No.	1	7874091
	Total Cost of Estimate			27162926

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	24553723	19288835
Civil Works As per Sheet 'C'	10036387	7874091
Total Cost of the Estimate	34590109	27162926

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 2x 10 MVA, 33/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 10 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 2x 10 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm2	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	346116.20

Cost data for Clamps & Connectors at 2x 10 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
		Total:			251340.00

Cost data for structure of 11 kV Main Bus at 2 X 10 MVA,33/11 kV Sub-Station

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm2	Rmt.	150	127.40	19110.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
15	Miscellaneous material	LS	1	475.00	475.00
		Total:			266852.20

Cost data for Yard Lighting of 2X 10 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	Armoured Copper control cable 4C X 2.5 Sq mm	Mtr.	250	87.60	21900.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Mtr.	100	55.11	5511.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
		Total:			216090.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 10 MVA, 33/11 KV S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data for Control cable 2 X 10 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640.00
2	Control room (As per table B) outdoor	2087239.00
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.20
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D)	408296.00
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720.00
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.90
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0.00
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	25090.97
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091.00
14	Borewell including pumpset and allied accessories. (As per table I)	101071.00
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.80
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225.00
	Total=	7874091.36

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5	50510.00	252550.00
4	33 KV Post Insulator	Nos	6	918.00	5508.00
5	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
6	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
9	Earthing complete as per Sheet no.2	Set	2	240980.00	481960.00
10	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
11	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
12	33 KV P.T.	Nos	3	18876.00	56628.00
13	33 kv C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
14	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
15	C&R panel for 33 KV Transformer with Diff. Protection	No	1	62334.00	62334.00
16	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
17	33 kv Pin Insulators with G.I. Pins	Nos	12	541.00	6492.00
18	Structure for 33 KV CT & PT as per Sheet no.3	No	2	48071.00	96142.00
19	G.I.Nut Bolts	KG	150	82.90	12435.00
B	11 KV SIDE				
20	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
21	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	344111.20	688222.40
22	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
23	11 kv Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
24	Clamps and Connectors as per Sheet no.5	No.	1	251340.00	251340.00
25	Structure for 11 KV Main Bus as per Sheet no.6	No.	2	293528.20	587056.40
26	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
27	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
28	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	199541.40	199541.40
29	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
30	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**13605000.10**

1	Transportation on material	4.00%	544200
2	T&P on material cost	1.00%	136050
3	Contingencies on material	2.50%	340125
5	Erection cost on material	5.00%	680250
6	Contractor supervision charges on material	5.00%	680250
7	Insurance , Labour & Finance Cost	3.00%	408150
	Service Cost		2789025
	Sub-Total		16394025
8	Turnkey Charges	5.00%	819701
	Total		17213726
9	Civil Works As per Sheet 'C'	No.	1
	Total Cost of Estimate		25087818

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	21912213	17213726
Civil Works As per Sheet 'C'	10036387	7874091
Total Cost of the Estimate	31948600	25087818

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 1x 5 MVA & 1x10 MVA 33/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA & 1x 10 MVA 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x5 MVA & 1x10 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
10	Earthing Sets H.T	Sets	3	342.00	1026.00
11	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
12	AAAC 100 mm2	Rmt.	150	51.82	7773.00
13	AAAC 232 mm2	Rmt.	150	127.40	19110.00
14	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
15	G.I.Nut Bolts	Kg.	50	82.90	4145.00
16	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
17	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
d)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
18	Miscellaneous material	LS	1	475.00	475.00
				Total:	344111.20

Sheet
No. 5

Cost data for Clamps & Connectors at 1x5 MVA & 1x10 MVA 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	251340.00

Sheet
No- 6

Cost data for structure of 11 kV Main Bus at1x5 MVA & 1x10 MVA 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	37	603.00	22311.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	AAAC 232 mm2	Rmt.	150	127.40	19110.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	G.I.Nut Bolts	Kg.	50	82.90	4145.00
15	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	12	559.00	6708.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
18	Miscellaneous material	LS	1	475.00	475.00
				Total:	293528.20

Sheet
No.7

Cost data for Yard Lighting of 2X 5 MVA1x5 MVA & 1x10 MVA 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x5 MVA & 1x10 MVA 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable 120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable 70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data for Control cable 1x5 MVA & 1x10 MVA 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C

Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640.00
2	Control room (As per table B) outdoor	2087239.00
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.20
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D)	408296.00
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720.00
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.90
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0.00
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	25090.97
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091.00
14	Borewell including pumpset and allied accessories. (As per table I)	101071.00
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.80
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225.00
	Total=	7874091.36

Cost data for 33/11 KV, 1x5 MVA Substation (Outdoor) with RSJ pole structure.

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	RSJ 125x70, 8 m long	Nos	8	4683.00	37464.00
6	MS Channel 100x50x6 mm	Kg.	1650	51.80	85470.00
7	M.S. Angel(75 X 40 mm)	Kg.	100	51.80	5180.00
8	M.S. Flats(50 X 10mm)	Kg.	80	48.50	3880.00
9	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
12	Earthing complete as per Sheet no.1	Set	1	240980.00	240980.00
13	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
14	33 KV P.T.	Nos	3	18876.00	56628.00
15	33 kv C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
16	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
17	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
18	33 kv Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
19	Structure for 33 KV CT & PT as per Sheet no.2	No	1	48071.00	48071.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
22	Marshalling Box	Nos.	1	4284.00	4284.00
B	11 KV SIDE				
21	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
22	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
23	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	1	256151.20	256151.20
24	11 kv Pin Insulators with G.I. Pins	No.	12	135.00	1620.00
25	Clamps and Connectors as per Sheet no.4	No.	1	189486.00	189486.00
26	Structure for 11 KV Main Bus as per Sheet no.5	No.	1	195911.20	195911.20
27	S/S Yard lighting as per Sheet no.6	No.	1	189411.00	189411.00
28	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
29	11/0.43 KV x 100 KVA station Transformer as per Sheet no.7	No.	1	195591.40	195591.40
30	Control cables for S/S as per Sheet no.8	No.	1	85383.45	85383.45
31	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

6172489.25**Cost of material**

1	Transportation on material	4.00%	246900
2	T&P on material cost	1.00%	61725
3	Contigencies on material	2.50%	154312
5	Erection cost on material	5.00%	308624
6	Contractor supervision charges on material	5.00%	308624
7	Insurance , Labour & Finance Cost	3.00%	185175
	Service Cost		1265360
	Sub-Total		7437850
8	Turnkey Charges	5.00%	371892

Total**7809742**

9	Civil Works As per Sheet 'C'	No.	1	7233264
	Total Cost of Estimate			15043007

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	9941411	7809742
Civil Works As per Sheet 'C'	9219583	7233264
Total Cost of the Estimate	19160994	15043007

Sheet
No.1

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 33 KV CT & PT at 1x5 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x5 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	256151.20

Sheet
No. 4

Cost data for Clamps & Connectors at 1x 5 MVA, 3311 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	189486.00

Sheet
No.5

Cost data for Structure of 11 KV Main Bus at 1x5MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
1	RSJ 125x70, 8 m long	Nos.	8	4683.00	37464.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm2	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	195911.20

Sheet
No.6

Cost data for Yard Lighting of 1 x 5 MVA , 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	12	6300.00	75600.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	12	4815.00	57780.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt.	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cmt	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	189411.00

Sheet
No.7

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x5 MVA S/S. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	195591.40

Cost data for Control cable 1 X 5 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640.00
2	Control room (As per table B) outdoor	2087239.00
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.20
4	Sanitory Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D)	408296.00
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720.00
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	0.00
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0.00
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0.00
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091.00
14	Borewell including pumpset and allied accessories. (As per table I)	101071.00
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.80
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225.00
	Total=	7233264.49

Cost data for 33/11 kV 1 X 10 MVA New S/S(Outdoor) with RSJ pole structure

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	RSJ 125x70, 8 m long	Nos	8	4683.00	37464.00
6	MS Channel 100x50x6 mm	Kg.	1650	51.80	85470.00
7	M.S. Angel(75 X 40 mm)	Kg.	100	51.80	5180.00
8	M.S. Flats(50 X 10mm)	Kg.	80	48.50	3880.00
9	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
12	Earthing complete as per Sheet no.1	Set	1	267210.00	267210.00
13	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
14	33 KV P.T.	Nos	3	18876.00	56628.00
15	33 kv C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
16	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
17	C&R panel for 33 KV Transformer with Diff. Protection	No	1	62334.00	62334.00
18	33 kv Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
19	Structure for 33 KV CT & PT as per Sheet no.2	No	1	48071.00	48071.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
21	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
22	Marshalling Box	Nos.	1	4284.00	4284.00
B	11 KV SIDE				
22	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
23	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
24	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	1	327608.20	327608.20
25	11 kv Pin Insulators with G.I. Pins	No.	12	135.00	1620.00
26	Clamps and Connectors as per Sheet no.4	No.	1	189486.00	189486.00
27	Structure for 11 KV Main Bus as per Sheet no.5	No.	1	248792.20	248792.20
28	S/S Yard lighting as per Sheet no.6	No.	1	189411.00	189411.00
29	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
30	11/0.43 KV x 100 KVA station Transformer as per Sheet no.7	No.	1	199541.40	199541.40
31	Control cables for S/S as per Sheet no.8	No.	1	85383.45	85383.45
32	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D	Cost of material			8020416.25
1	Transportation on material	4.00%		320817
2	T&P on material cost	1.00%		80204
3	Contigencies on material	2.50%		200510
5	Erection cost on material	5.00%		401021
6	Contractor supervision charges on material	5.00%		401021
7	Insurance , Labour & Finance Cost	3.00%		240612
	Service Cost			1644185
	Sub-Total			9664602
8	Turnkey Charges	5.00%		483230
	Total			10147832
9	Civil Works As per Sheet 'C'	No.	1	7233264
	Total Cost of Estimate			17381096

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	12917682	10147832
Civil Works As per Sheet 'C'	9219583	7233264
Total Cost of the Estimate	22137265	17381096

Sheet
No.1

Cost data for Earthing Work at 1x 10 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	2000	48.50	97000.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1400	15.00	21000.00
4	Salt	Kg.	1400	7.00	9800.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	267210.00

Sheet
No.2

Cost data of Structure for 33 KV CT & PT at 1x10 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm2	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	327608.20

**Cost data for Clamps & Connectors at 1x 10 MVA,
3311 kv sub stn. (Outdoor)**

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	189486.00

Cost data for Structure of 11 KV Main Bus at 1x 10MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 125x70, 8 m long	Nos.	8	4683.00	37464.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm2	Rmt.	150	127.40	19110.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	248792.20

Cost data for Yard Lighting of 1 x 10 MVA , 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	12	6300.00	75600.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	12	4815.00	57780.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cmt	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	189411.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x10 MVA S/S. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data for Control cable 1 X 10 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	0
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225.00
	Total=	7233264.49

Cost data for 33/11 kV 2 X 5 MVA New S/S(Outdoor) with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5	50510.00	252550.00
4	33 KV Post Insulator	Nos	6	918.00	5508.00
5	RSJ 125x70, 8 m long	Nos	16	4683.00	74928.00
6	MS Channel 100x50x6 mm	Kg.	3300	51.80	170940.00
7	M.S. Angel(75 X 40 mm)	Kg.	200	51.80	10360.00
8	M.S. Flats(50 X 10mm)	Kg.	160	48.50	7760.00
9	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
12	Earthing complete as per Sheet no.1	Set	2	240980.00	481960.00
13	Power Transformer 33/11 KV, 5 MVA	No	2	3003469.00	6006938.00
14	33 KV P.T.	Nos	3	18876.00	56628.00
15	33 kv C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
16	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
17	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	2	56858.00	113716.00
18	33 kv Pin Insulators with G.I. Pins	Nos	12	541.00	6492.00
19	Structure for 33 KV CT & PT as per Sheet no.2	No	2	48071.00	96142.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
21	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
22	Marshalling Box	Nos.	2	4284.00	8568.00
B	11 KV SIDE				
22	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
23	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	2	274659.20	549318.40
24	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
25	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
26	Clamps and Connectors as per Sheet no.4	No.	1	251340.00	251340.00
27	Structure for 11 KV Main Bus as per Sheet no.5	No.	2	195911.20	391822.40
28	S/S Yard lighting as per Sheet no.6	No.	1	215879.00	215879.00
29	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
30	11/0.43 KV x 100 KVA station Transformer as per Sheet no.7	No.	1	199541.40	199541.40
31	Control cables for S/S as per Sheet no.8	No.	1	171605.90	171605.90
32	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**11663439.10**

1	Transportation on material	4.00%	466538
2	T&P on material cost	1.00%	116634
3	Contigencies on material	2.50%	291586
5	Erection cost on material	5.00%	583172
6	Contractor supervision charges on material	5.00%	583172
7	Insurance , Labour & Finance Cost	3.00%	349903
	Service Cost		2391005
	Sub-Total		14054444
8	Turnkey Charges	5.00%	702722

Total**14757166**

9	Civil Works As per Sheet 'C'	No.	1	7849000
	Total Cost of Estimate			22606167

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	18785135	14757166
Civil Works As per Sheet 'C'	10004405	7849000
Total Cost of the Estimate	28789541	22606167

Sheet
No.1

Cost data for Earthing Work at 2x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 33 KV CT & PT at 2x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	274659.20

Sheet
No. 4

Cost data for Clamps & Connectors at 2x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	251340.00

Sheet
No- 5

Cost data for structure of 11 kV Main Bus at 2 X 5 MVA,33/11 kV Sub-Station

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 125x70, 8 m long	Nos.	8	4683.00	37464.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	195911.20

Sheet
No.6

Cost data for Yard Lighting of 2X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt.	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Sheet
No.7

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data for Control cable 2 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7849000.39

Cost data for 33/11 kV 2 X 10 MVA New S/S(Outdoor) with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5	50510.00	252550.00
4	33 KV Post Insulator	Nos	6	918.00	5508.00
5	RSJ 125x70, 8 m long	Nos	16	4683.00	74928.00
6	MS Channel 100x50x6 mm	Kg.	3300	51.80	170940.00
7	M.S. Angel(75 X 40 mm)	Kg.	200	51.80	10360.00
8	M.S. Flats(50 X 10mm)	Kg.	160	48.50	7760.00
9	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
12	Earthing complete as per Sheet no.1	Set	2	240980.00	481960.00
13	Power Transformer 33/11 KV, 10 MVA	No	2	4687202.00	9374404.00
14	33 KV P.T.	Nos	3	18876.00	56628.00
15	33 kV C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
16	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
17	C&R panel for 33 KV Transformer with Diff. Protection	No	2	62334.00	124668.00
18	33 kV Pin Insulators with G.I. Pins	Nos	12	541.00	6492.00
19	Structure for 33 KV CT & PT as per Sheet no.2	No	2	48071.00	96142.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
21	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
22	Marshalling Box	Nos.	4	4284.00	17136.00
B	11 KV SIDE				
23	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
24	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	2	346116.20	692232.40
25	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
26	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
27	Clamps and Connectors as per Sheet no.4	No.	1	251340.00	251340.00
28	Structure for 11 KV Main Bus as per Sheet no.5	No.	2	248792.20	497584.40
29	S/S Yard lighting as per Sheet no.6	No.	1	215879.00	215879.00
30	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
31	11/0.43 KV x 100 KVA station Transformer as per Sheet no.7	No.	1	199541.40	199541.40
32	Control cables for S/S as per Sheet no.8	No.	1	171605.90	171605.90
33	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**15299101.10**

1	Transportation on material	4.00%	611964
2	T&P on material cost	1.00%	152991
3	Contingencies on material	2.50%	382478
5	Erection cost on material	5.00%	764955
6	Contractor supervision charges on material	5.00%	764955
7	Insurance , Labour & Finance Cost	3.00%	458973

Service Cost**3136316****Sub-Total****18435417**

8	Turnkey Charges	5.00%	921771
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Total**19357188**

9	Civil Works As per Sheet 'C'	No.	1	7874091
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Total Cost of Estimate**27231279**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	24640732	19357188
Civil Works As per Sheet 'C'	10036387	7874091
Total Cost of the Estimate	34677119	27231279

Sheet
No.1

Cost data for Earthing Work at 2x 10 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 33 KV CT & PT at 2x 10 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	346116.20

Sheet
No. 4

Cost data for Clamps & Connectors at 2x 10 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	251340.00

Sheet
No-5

Cost data for structure of 11 kV Main Bus at 2 X 10 MVA,33/11 kV Sub-Station

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 125x70, 8 m long	Nos.	8	4683.00	37464.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm2	Rmt.	150	127.40	19110.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	248792.20

Sheet
No.6

Cost data for Yard Lighting of 2X 10 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Sheet
No.7

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 10 MVA, 33/11 KV S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data for Control cable 2 X 10 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	25090.97
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7874091.36

Cost data for 33/11 kV 1 X 5 MVA & 1 X 10 MVA New S/S(Outdoor) with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5	50510.00	252550.00
4	33 KV Post Insulator	Nos	6	918.00	5508.00
5	RSJ 125x70, 8 m long	Nos	16	4683.00	74928.00
6	MS Channel 100x50x6 mm	Kg.	3300	51.80	170940.00
7	M.S. Angel(75 X 40 mm)	Kg.	200	51.80	10360.00
8	M.S. Flats(50 X 10mm)	Kg.	160	48.50	7760.00
9	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
10	AAAC 232 mm ²	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
12	Earthing complete as per Sheet no.1	Set	2	240980.00	481960.00
13	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
14	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
15	33 KV P.T.	Nos	3	18876.00	56628.00
16	33 kv C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
17	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
18	C&R panel for 33 KV Transformer with Diff. Protection	No	1	62334.00	62334.00
19	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
20	33 kv Pin Insulators with G.I. Pins	Nos	12	541.00	6492.00
21	Structure for 33 KV CT & PT as per Sheet no.2	No	2	48071.00	96142.00
22	G.I.Nut Bolts	KG	150	82.90	12435.00
23	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
B	11 KV SIDE				
24	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
25	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	2	344111.20	688222.40
26	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
27	11 kv Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
28	Clamps and Connectors as per Sheet no.4	No.	1	287052.00	287052.00
29	Structure for 11 KV Main Bus as per Sheet no.5	No.	2	274865.20	549730.40
30	S/S Yard lighting as per Sheet no.6	No.	1	215879.00	215879.00
31	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
32	11/0.43 KV x 100 KVA station Transformer as per Sheet no.7	No.	1	199541.40	199541.40
33	Control cables for S/S as per Sheet no.8	No.	1	171605.90	171605.90
34	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**13676604.10**

1	Transportation on material	4.00%	547064
2	T&P on material cost	1.00%	136766
3	Contigencies on material	2.50%	341915
5	Erection cost on material	5.00%	683830
6	Contractor supervision charges on material	5.00%	683830
7	Insurance , Labour & Finance Cost	3.00%	410298

Service Cost**2803704****Sub-Total****16480308**

8	Turnkey Charges	5.00%	824015
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Total**17304323**

8	Civil Works As per Sheet 'C'	No.	1	7874091
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Total Cost of Estimate**25178415**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	22027539	17304323
Civil Works As per Sheet 'C'	10036387	7874091
Total Cost of the Estimate	32063925	25178415

Sheet
No.1

Cost data for Earthing Work at 1x 5 MVA & 1x 10 MVA 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 33 KV CT & PT at 1x5 MVA & 1x10 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
10	Earthing Sets H.T	Sets	3	342.00	1026.00
11	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
12	AAAC 232 mm2	Rmt.	150	127.40	19110.00
13	AAAC 100 mm2	Rmt.	150	51.82	7773.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	G.I.Nut Bolts	Kg.	50	82.90	4145.00
15	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
16	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
b)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
19	Miscellaneous material	LS	1	475.00	475.00
				Total:	344111.20

Sheet
No. 4

Cost data for Clamps & Connectors at 1x5 MVA & 1x10 MVA 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	36	992.00	35712.00
3	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
4	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
5	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
6	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
7	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	287052.00

Cost data for structure of 11 kV Main Bus at1x5 MVA & 1x10 MVA 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 125x70, 8 m long	Nos.	8	4683.00	37464.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm2	Rmt.	150	127.40	19110.00
12	AAAC 100 mm2	Rmt.	150	51.82	7773.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	G.I.Nut Bolts	Kg.	50	82.90	4145.00
15	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
b)	DOG TO DOG or equivalent AAAC	Nos.	12	559.00	6708.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	274865.20

Cost data for Yard Lighting of 2X 5 MVA1x5 MVA & 1x10 MVA 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L. S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for1x5 MVA & 1x10 MVA 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data for Control cable 1x5 MVA & 1x10 MVA 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitory Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	25090.97
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7874091.36

Cost data for 33/22 kV 1 X 5 MVA New S/S(Outdoor)

Sr.No	Description	Unit	Qty.	Rate	Amount
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2.00	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1.00	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3.00	50510.00	151530.00
4	33 KV Post Insulator	No	3.00	918.00	2754.00
5	Disc Insulator 11 KV 70 KN	No	18.00	344.00	6192.00
6	AAAC 232 mm2	Rmt	200.00	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Set	6.00	603.00	3618.00
8	Power Transformer 33/22 KV 5 MVA	No	1.00	3207040.00	3207040.00
9	33 KV P.T.	No	3.00	18876.00	56628.00
10	33 kv C. T. (400-200/1-1-1)	No	3.00	25011.00	75033.00
11	33 KV VCB complete 1600 Amp (O.D.)	No	1.00	204195.00	204195.00
12	C&R panel for 33 KV Transformer with Diff. Protection	Set	1.00	62334.00	62334.00
13	Control C&R Panel 22 KV for feeder with accessories.	Set	1	75834.00	75834.00
14	33 kv Pin Insulators with G.I. Pins	No	6.00	541.00	3246.00
15	G.I.Nut Bolts	Kg	150.00	82.90	12435.00
16	Marshalling Box	No	2.00	4284.00	8568.00
17	Gantry Structure/Steel section for 33 KV Bus as per Table No.1	Nos	1.00	121541.00	121541.00
18	Earthing complete as per Table No.2	Set	1.00	430060.00	430060.00
19	Structure for 33 KV CT & PT as per Table No.3	No	1.00	48071.00	48071.00
B	22 KV SIDE				
20	22 kv 500 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Isulators, C.T. & P.T. etc.	Set	1.00	1290945.00	1290945.00
21	22 KV Lightning Arrestors (Station type)	Set	1.00	11884.00	11884.00
22	22 kv Pin Insulators with G.I. Pins	No	12.00	336.00	4032.00
23	AC Distribution Board 'B' type	No	1.00	24325.00	24325.00
24	Battery set 30 Volt, 100 AH with Battery charger	Set	1.00	72000.00	72000.00
25	Take off structure for 3 outgoing feeder as per Table No.4	No.	1.00	300137.20	300137.20
26	Clamps and Connectors as per TableNo.5	No.	1.00	189486.00	189486.00
27	Structure for 22 KV Main Bus as per Table No.6	No.	1.00	242336.20	242336.20
28	S/S Yard lighting as per Table No.7	No.	1.00	215879.00	215879.00
29	22/0.43 KV x 100 KVA station Transformer as per Table No.8.	No.	1.00	305367.40	305367.40
30	Control cables for S/S as per Table No.9	No.	1.00	171605.90	171605.90

7404888.70**Cost of material**

1	Transportation on material	4.00%	296196
2	T&P on material cost	1.00%	74049
3	Contigencies on material	2.50%	185122
5	Erection cost on material	5.00%	370244
6	Contractor supervision charges on material	5.00%	370244
7	Insurance , Labour & Finance Cost	3.00%	222147

Service Cost**1518002****Sub-Total****8922891**

8	Turnkey Charges	5.00%	446145
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Total**9369035**

9	Civil Works As per Sheet 'C'	No.	1	7233264
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Total Cost of Estimate**16602300**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	11926314	9369035
Civil Works As per Sheet 'C'	9219583	7233264
Total Cost of the Estimate	21145897	16602300

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 1x5 MVA 33/22 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA at 33/22 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	2500	48.50	121250.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	44	6300.00	277200.00
3	Coal	Kg.	1400	15.00	21000.00
4	Salt	Kg.	1400	7.00	9800.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	430060.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1 x 5 MVA, 33/22 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 22 KV Feeders 3 outlets at 1x 5 MVA,33/22KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	22KV A.B.Switch, 400 A	Nos.	3	14447.00	43341.00
6	Disc Insulator 11 KV 70 KN	Nos.	72	344.00	24768.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	12	322.00	3864.00
8	22 kv Pin Insulators with G.I. Pins	Nos.	9	336.00	3024.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	22 KV Lightning Arrestors (Screw type)	Sets	3	8568.00	25704.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	300137.20

Cost data for Clamps & Connectors at 1 x 5 MVA, 33/22 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
		Total:			189486.00

Cost data for structure of 22 kV Main Bus at 1 X 5 MVA,33/22 kV Sub-Station

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	72	344.00	24768.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	12	322.00	3864.00
7	22 kV Pin Insulators with G.I. Pins	Nos.	9	336.00	3024.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	22 KV Lightning Arrestors (Screw type)	Sets	3	8568.00	25704.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
		Total:			242336.20

Cost data for Yard Lighting of 1 X 5 MVA, 33/22 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
		Total:			215879.00

Cost data for 100 KVA, 22/0.43 KV Station Transformer for 1 x 5 MVA, 33/22 KV S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist.transformer 100kva,22/0.4kv	No.	1	202380.00	202380.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	22KV A.B.Switch, 400 A	Set	1	14447.00	14447.00
7	22KV H.G.Fuses	Nos.	1	4467.00	4467.00
8	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
9	22 kV Pin Insulators with G.I. Pins	Nos.	6	336.00	2016.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	305367.40

Cost data for Control cable 1 X 5 MVA, 33/22KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 33/22 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	0
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071.00
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.80
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225.00
	Total=	7233264.49

Item Code No. 0102B

Cost data for 33/22 kV 1 X10 MVA New S/S(Outdoor)

Sr.No	Description	Unit	Qty.	Rate	Amount
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2.00	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1.00	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3.00	50510.00	151530.00
4	33 KV Post Insulator	No	3.00	918.00	2754.00
5	Disc Insulator 11 KV 70 KN	No	18.00	344.00	6192.00
6	AAAC 232 mm2	Rmt	200.00	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Set	6.00	603.00	3618.00
8	Power Transformer 33/22 KV 10 MVA	No	1.00	4955754.00	4955754.00
9	33 KV P.T.	No	3.00	18876.00	56628.00
10	33 kv C. T. (400-200/1-1-1)	No	3.00	25011.00	75033.00
11	33 KV VCB complete 1600 Amp (O.D.)	No	1.00	204195.00	204195.00
12	C&R panel for 33 KV Transformer with Diff. Protection	Set	1.00	62334.00	62334.00
13	33 kv Pin Insulators with G.I. Pins	No	6.00	541.00	3246.00
14	G.I.Nut Bolts	Kg	150.00	82.90	12435.00
15	Marshalling Box	No	2.00	4284.00	8568.00
16	Gantry Structure/Steel section for 33 KV Bus as per Table No.1	Nos	1.00	121541.00	121541.00
17	Earthing complete as per Table No.2	Set	1.00	430060.00	430060.00
18	Structure for 33 KV CT & PT as per Table No.3	No	1.00	48071.00	48071.00
B	22 KV SIDE				
20	22 kv 500 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1.00	1290945.00	1290945.00
21	22 KV Lightning Arrestors (Station type)	Set	1.00	11884.00	11884.00
22	22 kv Pin Insulators with G.I. Pins	No	12.00	336.00	4032.00
23	22 KV C.T. Three core.	No	3.00	24999.00	74997.00
24	AC Distribution Board 'B' type	No	1.00	24325.00	24325.00
25	Battery set 30 Volt, 100 AH with Battery charger	Set	1.00	72000.00	72000.00
26	Take off structure for 3 outgoing feeder as per Table No.4	No.	1.00	300137.20	300137.20
27	Clamps and Connectors as per TableNo.5	No.	1.00	189486.00	189486.00
28	Structure for 22 KV Main Bus as per Table No.6	No.	1.00	242336.20	242336.20
29	S/S Yard lighting as per Table No.7	No.	1.00	215879.00	215879.00
30	22/0.43 KV x 100 KVA station Transformer as per Table No.8.	No.	1.00	305367.40	305367.40
31	Control cables for S/S as per Table No.9	No.	1.00	171605.90	171605.90

Cost of material**9152765.70**

1	Transportation on material	4.00%	366111
2	T&P on material cost	1.00%	91528
3	Contigencies on material	2.50%	228819
5	Erection cost on material	5.00%	457638
6	Contractor supervision charges on material	5.00%	457638
7	Insurance , Labour & Finance Cost	3.00%	274583

Service Cost**1876317****Sub-Total****11029083**

8	Turnkey Charges	5.00%	551454
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Total**11580537**

9	Civil Works As per Sheet 'C'	No.	1	7233264
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Total Cost of Estimate**18813801**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	14741444	11580537
Civil Works As per Sheet 'C'	9219583	7233264
Total Cost of the Estimate	23961027	18813801

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 1x10 MVA 33/22 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Sheet
No.2

Cost data for Earthing Work at 1x 10 MVA at 33/22 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	2500	48.50	121250.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	44	6300.00	277200.00
3	Coal	Kg.	1400	15.00	21000.00
4	Salt	Kg.	1400	7.00	9800.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	430060.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1 x 10 MVA, 33/22 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 22 KV Feeders 3 outlets at 1x10 MVA,33/22KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	22KV A.B.Switch, 400 A	Nos.	3	14447.00	43341.00
6	Disc Insulator 11 KV 70 KN	Nos.	72	344.00	24768.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	12	322.00	3864.00
8	22 kv Pin Insulators with G.I. Pins	Nos.	9	336.00	3024.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	22 KV Lightning Arrestors (Screw type)	Sets	3	8568.00	25704.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	300137.20

Cost data for Clamps & Connectors at 1 x10 MVA, 33/22 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
		Total:			189486.00

Cost data for structure of 22 kV Main Bus at 1 X 10 MVA,33/22 kV Sub-Station

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	72	344.00	24768.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	12	322.00	3864.00
7	22 kV Pin Insulators with G.I. Pins	Nos.	9	336.00	3024.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	22 KV Lightning Arrestors (Screw type)	Sets	3	8568.00	25704.00
10	AAAC 100 mm2	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
		Total:			242336.20

Cost data for Yard Lighting of 1 X 10 MVA, 33/22 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
		Total:			215879.00

Cost data for 100 KVA, 22/0.43 KV Station Transformer for 1 x 10 MVA, 33/22 KV S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist.transformer 100kva,22/0.4kv	No.	1	202380.00	202380.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	22KV A.B.Switch, 400 A	Set	1	14447.00	14447.00
7	22KV H.G.Fuses	Nos.	1	4467.00	4467.00
8	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
9	22 kV Pin Insulators with G.I. Pins	Nos.	6	336.00	2016.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	305367.40

Cost data for Control cable 1 X 10 MVA, 33/22KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 33/22 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	0
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091.00
14	Borewell including pumpset and allied accessories. (As per table I)	101071.00
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.80
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225.00
	Total=	7233264.49

Sr.No	Description	Unit	Qty.	Rate	Amount
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4.00	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2.00	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5.00	50510.00	252550.00
4	33 KV Post Insulator	No	6.00	918.00	5508.00
5	Disc Insulator 11 KV 70 KN	No	36.00	344.00	12384.00
6	AAAC 232 mm2	Rmt	200.00	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Set	12.00	603.00	7236.00
8	Power Transformer 33/22 KV 5 MVA	No	2.00	3207040.00	6414080.00
9	33 KV P.T.	No	3.00	18876.00	56628.00
10	33 kv C. T. (400-200/1-1-1)	No	6.00	25011.00	150066.00
11	33 KV VCB complete 1600 Amp (O.D.)	No	2.00	204195.00	408390.00
12	C&R panel for 33 KV Transformer with Diff. Protection	Set	2.00	62334.00	124668.00
13	Control C&R Panel 22 KV for feeder with accessories.	Set	1	75834.00	75834.00
14	33 kv Pin Insulators with G.I. Pins	No	12.00	541.00	6492.00
15	G.I.Nut Bolts	Kg	150.00	82.90	12435.00
16	Marshalling Box	No	5.00	4284.00	21420.00
17	Gantry Structure/Steel section for 33 KV Bus as per Table No.1	Nos	1.00	194970.00	194970.00
18	Earthing complete as per Table No.2	Set	2.00	240980.00	481960.00
19	Structure for 33 KV CT & PT as per Table No.3	No	2.00	48071.00	96142.00
B	22 KV SIDE				
20	22 kv 500 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Isulators, C.T. & P.T. etc.	Set	2.00	1290945.00	2581890.00
21	22 KV Lightning Arrestors (Station type)	Set	2.00	11884.00	23768.00
22	22 kv Pin Insulators with G.I. Pins	No	24.00	336.00	8064.00
23	AC Distribution Board 'B' type	No	1.00	24325.00	24325.00
24	Battery set 30 Volt, 100 AH with Battery charger	Set	1.00	72000.00	72000.00
25	Take off structure for 3 outgoing feeder as per Table No.4	No.	2.00	318645.20	637290.40
26	Clamps and Connectors as per TableNo.5	No.	1.00	251340.00	251340.00
27	Structure for 22 KV Main Bus as per Table No.6	No.	2.00	242336.20	484672.40
28	S/S Yard lighting as per Table No.7	No.	1.00	215879.00	215879.00
29	22/0.43 KV x 100 KVA station Transformer as per Table No.8.	No.	1.00	305367.40	305367.40
30	Control cables for S/S as per Table No.9	No.	2.00	171605.90	343211.80
D	Cost of material				13458715.00
1	Transportation on material		4.00%		538349
2	T&P on material cost		1.00%		134587
3	Contingencies on material		2.50%		336468
5	Erection cost on material		5.00%		672936
6	Contractor supervision charges on material		5.00%		672936
7	Insurance , Labour & Finance Cost		3.00%		403761
	Service Cost				2759037
	Sub-Total				16217752
8	Turnkey Charges		5.00%		810888
	Total				17028639
9	Civil Works As per Sheet 'C'	No.	1		7849000
	Total Cost of Estimate				24877640

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	21676606	17028639
Civil Works As per Sheet 'C'	10004405	7849000
Total Cost of the Estimate	31681012	24877640

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 2x5 MVA 33/22 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 5 MVA at 33/22 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 2x 5 MVA, 33/22 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 22 KV Feeders 3 outlets at 2x5 MVA,33/22KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	22KV A.B.Switch, 400 A	Nos.	3	14447.00	43341.00
6	Disc Insulator 11 KV 70 KN	Nos.	72	344.00	24768.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	12	322.00	3864.00
8	22 kv Pin Insulators with G.I. Pins	Nos.	9	336.00	3024.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	22 KV Lightning Arrestors (Screw type)	Sets	3	8568.00	25704.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	318645.20

Cost data for Clamps & Connectors at 2x5 MVA, 33/22 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
		Total:			251340.00

Cost data for structure of 22 kV Main Bus at 2 X 5 MVA,33/22 kV Sub-Station

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	72	344.00	24768.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	12	322.00	3864.00
7	22 kV Pin Insulators with G.I. Pins	Nos.	9	336.00	3024.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	22 KV Lightning Arrestors (Screw type)	Sets	3	8568.00	25704.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
		Total:			242336.20

Cost data for Yard Lighting of 2X 5 MVA, 33/22 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
		Total:			215879.00

Cost data for 100 KVA, 22/0.43 KV Station Transformer for 2x5 MVA, 33/22 KV S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist.transformer 100kva,22/0.4kv	No.	1	202380.00	202380.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	22KV A.B.Switch, 400 A	Set	1	14447.00	14447.00
7	22KV H.G.Fuses	Nos.	1	4467.00	4467.00
8	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
9	22 kV Pin Insulators with G.I. Pins	Nos.	6	336.00	2016.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	305367.40

Cost data for Control cable 2 X 5 MVA, 33/22KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 33/22 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7849000.39

Cost data for 33/22 kV 2 X 10 MVA New S/S(Outdoor)

Sr.No	Description	Unit	Qty.	Rate	Amount
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4.00	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2.00	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5.00	50510.00	252550.00
4	33 KV Post Insulator	No	6.00	918.00	5508.00
5	Disc Insulator 11 KV 70 KN	No	36.00	344.00	12384.00
6	AAAC 232 mm2	Rmt	200.00	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Set	12.00	603.00	7236.00
8	Power Transformer 33/22 KV 10 MVA	No	2.00	4955754.00	9911508.00
9	33 KV P.T.	No	3.00	18876.00	56628.00
10	33 kv C. T. (400-200/1-1-1)	No	6.00	25011.00	150066.00
11	33 KV VCB complete 1600 Amp (O.D.)	No	2.00	204195.00	408390.00
12	C&R panel for 33 KV Transformer with Diff. Protection	Set	2.00	62334.00	124668.00
13	Control C&R Panel 22 KV for feeder with accessories.	Set	1	75834.00	75834.00
14	33 kv Pin Insulators with G.I. Pins	No	12.00	541.00	6492.00
15	G.I.Nut Bolts	Kg	150.00	82.90	12435.00
16	Marshalling Box	No	5.00	4284.00	21420.00
17	Gantry Structure/Steel section for 33 KV Bus as per Table No.1	Nos	1.00	194970.00	194970.00
18	Earthing complete as per Table No.2	Set	2.00	240980.00	481960.00
19	Structure for 33 KV CT & PT as per Table No.3	No	2.00	48071.00	96142.00
B	22 KV SIDE				
20	22 kv 500 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Isulators, C.T. & P.T. etc.	Set	2.00	1290945.00	2581890.00
21	22 KV Lightning Arrestors (Station type)	Set	2.00	11884.00	23768.00
22	22 kv Pin Insulators with G.I. Pins	No	24.00	336.00	8064.00
23	AC Distribution Board 'B' type	No	1.00	24325.00	24325.00
24	Battery set 30 Volt, 100 AH with Battery charger	Set	1.00	72000.00	72000.00
25	Take off structure for 3 outgoing feeder as per Table No.4	No.	2.00	318645.20	637290.40
26	Clamps and Connectors as per TableNo.5	No.	1.00	251340.00	251340.00
27	Structure for 22 KV Main Bus as per Table No.6	No.	2.00	242336.20	484672.40
28	S/S Yard lighting as per Table No.7	No.	1.00	215879.00	215879.00
29	22/0.43 KV x 100 KVA station Transformer as per Table No.8.	No.	1.00	305367.40	305367.40
30	Control cables for S/S as per Table No.9	No.	2.00	171605.90	343211.80

D Cost of material **16956143.00**

1	Transportation on material	4.00%	678246
2	T&P on material cost	1.00%	169561
3	Contingencies on material	2.50%	423904
5	Erection cost on material	5.00%	847807
6	Contractor supervision charges on material	5.00%	847807
7	Insurance , Labour & Finance Cost	3.00%	508684

Service Cost **3476009**

Sub-Total **20432152**

8	Turnkey Charges	5.00%	1021608
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Total **21453760**

9	Civil Works As per Sheet 'C'	No.	1	7874091
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Total Cost of Estimate **29327851**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	27309564	21453760
Civil Works As per Sheet 'C'	10036387	7874091
Total Cost of the Estimate	37345951	29327851

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 2x10 MVA 33/22 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 10 MVA at 33/22 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 2x 10 MVA, 33/22 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 22 KV Feeders 3 outlets at 2x 10 MVA,33/22KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	22KV A.B.Switch, 400 A	Nos.	3	14447.00	43341.00
6	Disc Insulator 11 KV 70 KN	Nos.	72	344.00	24768.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	12	322.00	3864.00
8	22 kv Pin Insulators with G.I. Pins	Nos.	9	336.00	3024.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	22 KV Lightning Arrestors (Screw type)	Sets	3	8568.00	25704.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	318645.20

Cost data for Clamps & Connectors at 2x 10 MVA, 33/22 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
		Total:			251340.00

Cost data for structure of 22 kV Main Bus at 2 X 10 MVA,33/22 kV Sub-Station

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	72	344.00	24768.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	12	322.00	3864.00
7	22 kV Pin Insulators with G.I. Pins	Nos.	9	336.00	3024.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	22 KV Lightning Arrestors (Screw type)	Sets	3	8568.00	25704.00
10	AAAC 100 mm2	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
		Total:			242336.20

Cost data for Yard Lighting of 2X 10 MVA, 33/22 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
		Total:			215879.00

Cost data for 100 KVA, 22/0.43 KV Station Transformer for 2x 10 MVA, 33/22 KV S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist.transformer 100kva,22/0.4kv	No.	1	202380.00	202380.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	22KV A.B.Switch, 400 A	Set	1	14447.00	14447.00
7	22KV H.G.Fuses	Nos.	1	4467.00	4467.00
8	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
9	22 kV Pin Insulators with G.I. Pins	Nos.	6	336.00	2016.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	305367.40

Cost data for Control cable 2 X 10 MVA, 33/22KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 33/22 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	25090.97
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7874091.364

Cost data for 33/11 kV 1 X 5 MVA New S/S33 kV Outdoor & 11 kV Indoor

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
6	AAAC 232 mm2	MTR	200	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
8	Earthing complete as per Sheet no.2	Set	1	270490.00	270490.00
9	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
10	33 KV P.T.	Nos	3	18876.00	56628.00
11	33 kV C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
12	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
13	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
14	33 kV Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
15	Structure for 33 KV CT & PT as per Sheet no.3	No	1	48071.00	48071.00
16	G.I.Nut Bolts	KG	150	82.90	12435.00
17	Gantry Structure/Steel section for 33 KV Bus as per Table No.1	Nos	1.00	121541.00	121541.00
18	Marshalling Box	No.	1	4284.00	4284.00
B	11 KV SIDE				
19	11kV I D switchgear (1 I/c+1 B/c+4O/G)	Set	1	1703020.00	1703020.00
20	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	300	1194.00	358200.00
21	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	4	1662.00	6648.00
22	Clamps and Connectors as per Sheet no.4	No.	1	273276.00	273276.00
23	S/S Yard lighting as per Sheet no.5	No.	1	211641.00	211641.00
24	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
25	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	No.	1	196242.40	196242.40
26	Control cables for S/S as per Sheet no.7	No.	1	85383.45	85383.45
27	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material

7058891.85

1	Transportation on material	4.00%	282356
2	T&P on material cost	1.00%	70589
3	Contingencies on material	2.50%	176472
5	Erection cost on material	5.00%	352945
6	Contractor supervision charges on material	5.00%	352945
7	Insurance , Labour & Finance Cost	3.00%	211767
	Service Cost		1447073
	Sub-Total		8505965
8	Turnkey Charges	5.00%	425298

Total

8931263

9	Civil Works As per Sheet 'C'	No.	1	5202820
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Total Cost of Estimate

14134083

Particulars		
	DPR Amount	Tender/ Estimate Amount
Cost with overheads on Material	11369051	8931263
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	18000612	14134083

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 1x5 MVA 33/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	G.I..Flat 50 x 6 mm	Kg.	1500	66.78	100170.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries such as N/B, Washers, Welding etc.	L.S.	1	2900.00	2900.00
				Total:	270490.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	273276.00

Sheet
No.5

Cost data for Yard Lighting of 1X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cum	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	211641.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) Hybrid	150490
2	Control room (As per table B) Hybrid	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) Hybrid	0
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D) Hybrid	230185
7	Chain link fencing and Bar bed wire fencing (As per table E) Hybrid	537350.16
8	Metal Spreading (As per table F) Hybrid	96212
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) Hybrid	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) Hybrid	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) Hybrid	173239.75
15	Construction of retaining wall. (As per table K) Hybrid	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5202820.06

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
6	AAAC 232 mm2	MTR	200	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
8	Earthing complete as per Sheet no.2	Set	1	270490.00	270490.00
9	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
10	33 KV P.T.	Nos	3	18876.00	56628.00
11	33 kV C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
12	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
13	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
14	33 kV Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
15	Structure for 33 KV CT & PT as per Sheet no.3	No	1	48071.00	48071.00
16	G.I.Nut Bolts	KG	150	82.90	12435.00
17	Gantry Structure/Steel section for 33 KV Bus as per Table No.1	Nos	1.00	121541.00	121541.00
18	Marshalling Box	No.	1	4284.00	4284.00
B	11 KV SIDE				
19	11kV I D switchgear (1 I/c+1 B/c+4O/G)	Set	1	1703020.00	1703020.00
20	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	300	1194.00	358200.00
21	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	4	1662.00	6648.00
22	Clamps and Connectors as per Sheet no.4	No.	1	390606.00	390606.00
23	S/S Yard lighting as per Sheet no.5	No.	1	211641.00	211641.00
24	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
25	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	No.	1	196242.40	196242.40
26	Control cables for S/S as per Sheet no.7	No.	1	85383.45	85383.45
27	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**8859954.85**

1	Transportation on material	4.00%	354398
2	T&P on material cost	1.00%	88600
3	Contingencies on material	2.50%	221499
5	Erection cost on material	5.00%	442998
6	Contractor supervision charges on material	5.00%	442998
7	Insurance , Labour & Finance Cost	3.00%	265799
	Service Cost		1816291
	Sub-Total		10676246
8	Turnkey Charges	5.00%	533812

Total**11210058**

9	Civil Works As per Sheet 'C'	No.	1	5202820
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Total Cost of Estimate**16412878**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	14269843	11210058
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	20901404	16412878

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 1x10 MVA 33/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	G.I..Flat 50 x 6 mm	Kg.	1500	66.78	100170.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries such as N/B, Washers, Welding etc.	L.S.	1	2900.00	2900.00
				Total:	270490.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
7	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
				Total:	390606.00

Sheet
No.5

Cost data for Yard Lighting of 1X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cum	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	211641.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) Hybrid	150490
2	Control room (As per table B) Hybrid	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) Hybrid	0
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D) Hybrid	230185
7	Chain link fencing and Bar bed wire fencing (As per table E) Hybrid	537350.16
8	Metal Spreading (As per table F) Hybrid	96212
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0.00
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) Hybrid	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) Hybrid	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) Hybrid	173239.75
15	Construction of retaining wall. (As per table K) Hybrid	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5202820.06

Cost data for 33/11 kV 2 X 5 MVA New S/S33 kV Outdoor & 11 kV Indoor

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5	50510.00	252550.00
4	33 KV Post Insulator	Nos	6	918.00	5508.00
5	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
6	AAAC 232 mm2	MTR	200	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
8	Earthing complete as per Sheet no.2	Set	2	240980.00	481960.00
9	Power Transformer 33/11 KV, 5 MVA	No	2	3003469.00	6006938.00
10	33 KV P.T.	Nos	3	18876.00	56628.00
11	33 kV C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
12	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
13	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	2	56858.00	113716.00
14	33 kV Pin Insulators with G.I. Pins	Nos	12	541.00	6492.00
15	Structure for 33 KV CT & PT as per Sheet no.3	No	2	48071.00	96142.00
16	G.I.Nut Bolts	KG	150	82.90	12435.00
17	Gantry Structure/Steel section for 33 KV Bus as per Table No.1	Nos	1.00	194970.00	194970.00
19	Marshalling Box	No.	2	4284.00	8568.00
B	11 KV SIDE				
20	11kV I D switchgear (2 I/c+1 B/c+8O/G)	Set	1	3117222.00	3117222.00
21	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	600	1194.00	716400.00
22	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	8	1662.00	13296.00
23	Clamps and Connectors as per Sheet no.4	No.	1	452460.00	452460.00
24	S/S Yard lighting as per Sheet no.5	No.	1	215879.00	215879.00
25	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
26	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	No.	1	196242.40	196242.40
27	Control cables for S/S as per Sheet no.7	No.	1	171605.90	171605.90
28	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**12983557.30**

1	Transportation on material	4.00%	519342
2	T&P on material cost	1.00%	129836
3	Contingencies on material	2.50%	324589
5	Erection cost on material	5.00%	649178
6	Contractor supervision charges on material	5.00%	649178
7	Insurance , Labour & Finance Cost	3.00%	389507
	Service Cost		2661629
	Sub-Total		15645187
8	Turnkey Charges	5.00%	782259

Total**16427446**

9	Civil Works As per Sheet 'C'	No.	1	5289109
	Total Cost of Estimate			21716555

Particulars		
	DPR Amount	Tender/ Estimate Amount
Cost with overheads on Material	61.06%	26.525%
Civil Works As per Sheet 'C'	20911317	16427446
Total Cost of the Estimate	6741546	5289109
	27652863	21716555

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 2x5 MVA 33/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 2x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 2x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
7	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
				Total:	452460.00

Sheet
No.5

Cost data for Yard Lighting of 2X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 2 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) Hybrid	150490
2	Control room (As per table B) Hybrid	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) Hybrid	0
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D) Hybrid	230185
7	Chain link fencing and Bar bed wire fencing (As per table E) Hybrid	537350.16
8	Metal Spreading (As per table F) Hybrid	96212
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) Hybrid	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) Hybrid	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) Hybrid	173239.75
15	Construction of retaining wall. (As per table K) Hybrid	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5289109.26

Cost data for 33/11 kV 2 X 10 MVA New S/S33 kV Outdoor & 11 kV Indoor

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5	50510.00	252550.00
4	33 KV Post Insulator	Nos	6	918.00	5508.00
5	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
6	AAAC 232 mm2	MTR	200	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
8	Earthing complete as per Sheet no.2	Set	2	240980.00	481960.00
9	Power Transformer 33/11 KV, 10 MVA	No	2	4687202.00	9374404.00
10	33 KV P.T.	Nos	3	18876.00	56628.00
11	33 kV C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
12	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
13	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	2	56858.00	113716.00
14	33 kV Pin Insulators with G.I. Pins	Nos	12	541.00	6492.00
15	Structure for 33 KV CT & PT as per Sheet no.3	No	2	48071.00	96142.00
16	G.I.Nut Bolts	KG	150	82.90	12435.00
17	Gantry Structure/Steel section for 33 KV Bus as per Table No.1	Nos	1.00	194970.00	194970.00
18	Marshalling Box	No.	2	4284.00	8568.00
B	11 KV SIDE				
19	11kV I D switchgear (2 I/c+1 B/c+8O/G)	Set	1	3117222.00	3117222.00
20	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	600	1194.00	716400.00
21	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	8	1662.00	13296.00
22	Clamps and Connectors as per Sheet no.4	No.	1	452460.00	452460.00
23	S/S Yard lighting as per Sheet no.5	No.	1	215879.00	215879.00
24	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
25	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	No.	1	196242.40	196242.40
26	Control cables for S/S as per Sheet no.7	No.	1	171605.90	171605.90
27	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material **16351023.30**

1	Transportation on material	4.00%	654041
2	T&P on material cost	1.00%	163510
3	Contingencies on material	2.50%	408776
5	Erection cost on material	5.00%	817551
6	Contractor supervision charges on material	5.00%	817551
7	Insurance , Labour & Finance Cost	3.00%	490531

Service Cost **3351960**

Sub-Total **19702983**

8	Turnkey Charges	5.00%	985149
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Total **20688132**

9	Civil Works As per Sheet 'C'	No.	1	5314200
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Total Cost of Estimate **26002332**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	26334958	20688132
Civil Works As per Sheet 'C'	6773527	5314200
Total Cost of the Estimate	33108485	26002332

Sheet
No.1

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 2x10 MVA 33/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 10 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 2x10 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 2x10 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
7	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
				Total:	452460.00

Sheet
No.5

Cost data for Yard Lighting of 2X 10 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Sheet
No.6

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 10 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Sheet
No.7

Cost data for Control cable 2 X 10 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C

Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) Hybrid	150490
2	Control room (As per table B) Hybrid	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) Hybrid	0
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D) Hybrid	230185
7	Chain link fencing and Bar bed wire fencing (As per table E) Hybrid	537350.16
8	Metal Spreading (As per table F) Hybrid	96212
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	25090.97
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) Hybrid	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) Hybrid	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) Hybrid	173239.75
15	Construction of retaining wall. (As per table K) Hybrid	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5314200.23

Cost data for 33/11 kV 1 X 5 MVA New S/S33 kV Outdoor & 11 kV Indoor with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	RSJ 125x70, 8 m long	Nos	8	4683.00	37464.00
6	G.I.Channel 100x50x6mm	Kg.	1650	70.08	115632.00
7	G.I.Angle 75x40 mm	Kg.	100	70.08	7008.00
8	G.I Flat 50x10 mm	Kg.	80	66.78	5342.40
9	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
12	Earthing complete as per Sheet no.1	Set	1	270490.00	270490.00
13	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
14	33 KV P.T.	Nos	3	18876.00	56628.00
15	33 kV C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
16	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
17	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
18	33 kV Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
19	Structure for 33 KV CT & PT as per Sheet no.2	No	1	48071.00	48071.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
21	Marshalling Box	No.	1	4284.00	4284.00
B	11 KV SIDE				
22	11kV I D switchgear (1 I/c+1 B/c+4O/G)	Set	1	1703020.00	1703020.00
23	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	300	1194.00	358200.00
24	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	4	1662.00	6648.00
25	Clamps and Connectors as per Sheet no.3	No.	1	273276.00	273276.00
26	S/S Yard lighting as per Sheet no.4	No.	1	211641.00	211641.00
27	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
28	11/0.43 KV x 100 KVA station Transformer as per Sheet no.5	No.	1	196242.40	196242.40
29	Control cables for S/S as per Sheet no.6	No.	1	85383.45	85383.45
30	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**7102797.25**

1	Transportation on material	4.00%	284112
2	T&P on material cost	1.00%	71028
3	Contingencies on material	2.50%	177570
5	Erection cost on material	5.00%	355140
6	Contractor supervision charges on material	5.00%	355140
7	Insurance , Labour & Finance Cost	3.00%	213084

Service Cost**1456073****Sub-Total****8558871**

8	Turnkey Charges	5.00%	427944
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Total**8986814**

9	Civil Works As per Sheet 'C'	No.	1	5202820
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Total Cost of Estimate**14189634**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	11439765	8986814
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	18071326	14189634

Sheet
No.1

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	G.I..Flat 50 x 6 mm	Kg.	1500	66.78	100170.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries such as N/B, Washers, Welding etc.	L.S.	1	2900.00	2900.00
Total:					270490.00

Sheet
No.2

Cost data of Structure for 33 KV CT & PT at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
Total:					48071.00

Sheet
No.3

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
Total:					273276.00

Sheet
No.4

Cost data for Yard Lighting of 1X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cum	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
Total:					211641.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) Hybrid	150490
2	Control room (As per table B) Hybrid	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) Hybrid	0
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D) Hybrid	230185
7	Chain link fencing and Bar bed wire fencing (As per table E) Hybrid	537350.16
8	Metal Spreading (As per table F) Hybrid	96212
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) Hybrid	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) Hybrid	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) Hybrid	173239.75
15	Construction of retaining wall. (As per table K) Hybrid	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5202820.06

Cost data for 33/11 kV 1 X 10 MVA New S/S33 kV Outdoor & 11 kV Indoor with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	RSJ 125x70, 8 m long	Nos	8	4683.00	37464.00
6	G.I.Channel 100x50x6mm	Kg.	1650	70.08	115632.00
7	G.I.Angle 75x40 mm	Kg.	100	70.08	7008.00
8	G.I Flat 50x10 mm	Kg.	80	66.78	5342.40
9	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
12	Earthing complete as per Sheet no.1	Set	1	270490.00	270490.00
13	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
14	33 KV P.T.	Nos	3	18876.00	56628.00
15	33 kV C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
16	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
17	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
18	33 kV Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
19	Structure for 33 KV CT & PT as per Sheet no.2	No	1	48071.00	48071.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
21	Marshalling Box	No.	1	4284.00	4284.00
B	11 KV SIDE				
22	11kV I D switchgear (1 I/c+1 B/c+4O/G)	Set	1	1703020.00	1703020.00
23	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	300	1194.00	358200.00
24	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	4	1662.00	6648.00
25	Clamps and Connectors as per Sheet no.3	No.	1	273276.00	273276.00
26	S/S Yard lighting as per Sheet no.4	No.	1	211641.00	211641.00
27	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
28	11/0.43 KV x 100 KVA station Transformer as per Sheet no.5	No.	1	196242.40	196242.40
29	Control cables for S/S as per Sheet no.6	No.	1	85383.45	85383.45
30	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material 8786530.25

1	Transportation on material	4.00%	351461
2	T&P on material cost	1.00%	87865
3	Contingencies on material	2.50%	219663
5	Erection cost on material	5.00%	439327
6	Contractor supervision charges on material	5.00%	439327
7	Insurance , Labour & Finance Cost	3.00%	263596

Service Cost**Sub-Total**

8	Turnkey Charges	5.00%	529388
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Total**11117157**

9	Civil Works As per Sheet 'C'	No.	1	5202820
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Total Cost of Estimate**16319977**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	14151586	11117157
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	20783146	16319977

Sheet
No.1

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	G.I.Flat 50 x 6 mm	Kg.	1500	66.78	100170.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries such as N/B, Washers, Welding etc.	L.S.	1	2900.00	2900.00
				Total:	270490.00

Sheet
No.2

Cost data of Structure for 33 KV CT & PT at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.3

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	273276.00

Sheet
No.4

Cost data for Yard Lighting of 1X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cum	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	211641.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) Hybrid	150490
2	Control room (As per table B) Hybrid	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) Hybrid	0
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D) Hybrid	230185
7	Chain link fencing and Bar bed wire fencing (As per table E) Hybrid	537350.16
8	Metal Spreading (As per table F) Hybrid	96212
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) Hybrid	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) Hybrid	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) Hybrid	173239.75
15	Construction of retaining wall. (As per table K) Hybrid	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5202820.06

Cost data for 33/11 kV 2 X 5 MVA New S/S33 kV Outdoor & 11 kV Indoor with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5	50510.00	252550.00
4	33 KV Post Insulator	Nos	6	918.00	5508.00
5	RSJ 125x70, 8 m long	Nos	16	4683.00	74928.00
6	G.I.Channel 100x50x6mm	Kg.	3300	70.08	231264.00
7	G.I.Angle 75x40 mm	Kg.	200	70.08	14016.00
8	G.I Flat 50x10 mm	Kg.	160	66.78	10684.80
9	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
12	Earthing complete as per Sheet no.1	Set	2	240980.00	481960.00
13	Power Transformer 33/11 KV, 5 MVA	No	2	3003469.00	6006938.00
14	33 KV P.T.	Nos	3	18876.00	56628.00
15	33 kV C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
16	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
17	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	2	56858.00	113716.00
18	33 kV Pin Insulators with G.I. Pins	Nos	12	541.00	6492.00
19	Structure for 33 KV CT & PT as per Sheet no.2	No	2	48071.00	96142.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
21	Marshalling Box	No.	2	4284.00	8568.00
B	11 KV SIDE				
22	11kV I D switchgear (2 I/c+1 B/c+8O/G)	Set	1	3117222.00	3117222.00
23	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	600	1194.00	716400.00
24	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	8	1662.00	13296.00
25	Clamps and Connectors as per Sheet no.3	No.	1	335130.00	335130.00
26	S/S Yard lighting as per Sheet no.4	No.	1	215879.00	215879.00
27	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
28	11/0.43 KV x 100 KVA station Transformer as per Sheet no.5	No.	1	196242.40	196242.40
29	Control cables for S/S as per Sheet no.6	No.	1	171605.90	171605.90
30	AC Distribution Board 'B' type	No.	1	24325.00	24325.00
D	Cost of material				13002150.10

1	Transportation on material	4.00%	520086
2	T&P on material cost	1.00%	130022
3	Contigencies on material	2.50%	325054
5	Erection cost on material	5.00%	650108
6	Contractor supervision charges on material	5.00%	650108
7	Insurance , Labour & Finance Cost	3.00%	390065
	Service Cost		2665441
	Sub-Total		15667591
8	Turnkey Charges	5.00%	783380

Total **16450970**

9	Civil Works As per Sheet 'C'	No.	1	5289109
	Total Cost of Estimate			21740080

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	20941263	16450970
Civil Works As per Sheet 'C'	6741546	5289109
Total Cost of the Estimate	27682809	21740080

Sheet
No.1

Cost data for Earthing Work at 2x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 33 KV CT & PT at 2x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.3

Cost data for Clamps & Connectors at 2x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	335130.00

Sheet
No.4

Cost data for Yard Lighting of 2X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 2 X 5 MVA, 33/11KV S/Str

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) Hybrid	150490
2	Control room (As per table B) Hybrid	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) Hybrid	0
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D) Hybrid	230185
7	Chain link fencing and Bar bed wire fencing (As per table E) Hybrid	537350.16
8	Metal Spreading (As per table F) Hybrid	96212
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) Hybrid	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) Hybrid	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) Hybrid	173239.75
15	Construction of retaining wall. (As per table K) Hybrid	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5289109.26

Cost data for 33/11 kV 2 X 10 MVA New S/S33 kV Outdoor & 11 kV Indoor with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
2	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
3	33 KV Isolators without EB (800 Amp.)	Set	5	50510.00	252550.00
4	33 KV Post Insulator	Nos	6	918.00	5508.00
5	RSJ 125x70, 8 m long	Nos	16	4683.00	74928.00
6	G.I.Channel 100x50x6mm	Kg.	3300	70.08	231264.00
7	G.I.Angle 75x40 mm	Kg.	200	70.08	14016.00
8	G.I Flat 50x10 mm	Kg.	160	66.78	10684.80
9	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
12	Earthing complete as per Sheet no.1	Set	2	240980.00	481960.00
13	Power Transformer 33/11 KV, 10 MVA	No	2	4687202.00	9374404.00
14	33 KV P.T.	Nos	3	18876.00	56628.00
15	33 kV C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
16	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
17	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	2	56858.00	113716.00
18	33 kV Pin Insulators with G.I. Pins	Nos	12	541.00	6492.00
19	Structure for 33 KV CT & PT as per Sheet no.2	No	2	48071.00	96142.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
21	Marshalling Box	No.	2	4284.00	8568.00
B	11 KV SIDE				
22	11kV I D switchgear (2 I/c+1 B/c+8O/G)	Set	1	3117222.00	3117222.00
23	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	600	1194.00	716400.00
24	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	8	1662.00	13296.00
25	Clamps and Connectors as per Sheet no.3	No.	1	335130.00	335130.00
26	S/S Yard lighting as per Sheet no.4	No.	1	215879.00	215879.00
27	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
28	11/0.43 KV x 100 KVA station Transformer as per Sheet no.5	No.	1	196242.40	196242.40
29	Control cables for S/S as per Sheet no.6	No.	1	171605.90	171605.90
30	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**16369616.10**

1	Transportation on material	4.00%	654785
2	T&P on material cost	1.00%	163696
3	Contingencies on material	2.50%	409240
5	Erection cost on material	5.00%	818481
6	Contractor supervision charges on material	5.00%	818481
7	Insurance , Labour & Finance Cost	3.00%	491088

Service Cost**3355771****Sub-Total****19725387**

8	Turnkey Charges	5.00%	986269
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Total**20711657**

9	Civil Works As per Sheet 'C'	No.	1	5314200
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Total Cost of Estimate**26025857**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	26364904	20711657
Civil Works As per Sheet 'C'	6773527	5314200
Total Cost of the Estimate	33138430	26025857

Sheet
No.1

Cost data for Earthing Work at 2x 10 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 33 KV CT & PT at 2x10 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.3

Cost data for Clamps & Connectors at 2x10 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	335130.00

Sheet
No.4

Cost data for Yard Lighting of 2X 10 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 10 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 2 X 10 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) Hybrid	150490
2	Control room (As per table B) Hybrid	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) Hybrid	0
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D) Hybrid	230185
7	Chain link fencing and Bar bed wire fencing (As per table E) Hybrid	537350.16
8	Metal Spreading (As per table F) Hybrid	96212
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	25090.97
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) Hybrid	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) Hybrid	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) Hybrid	173239.75
15	Construction of retaining wall. (As per table K) Hybrid	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5314200.23

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00

D	Cost of material				3003469.00
1	Transportation on material	4.00%			120139
2	T&P on material cost	1.00%			30035
3	Contingencies on material	2.50%			75087
5	Erection cost on material	5.00%			150173
6	Contractor supervision charges on material	5.00%			150173
7	Insurance , Labour & Finance Cost	3.00%			90104
	Service Cost				615711
	Sub-Total				3619180
8	Turnkey Charges	5.00%			180959
	Total				3800139

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	4837387	3800139
Total Cost of the Estimate	4837387	3800139

Cost data for Augmentation of 33/11 KV, 1x5 MVA to 1x10 MVA Power T/F (Outdoor)

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
2	C&R panel for 33 KV Transformer with Diff. Protection	No	1	62334.00	62334.00
3	AAAC 232 mm2	Mtr	75	127.40	9555.00
4	33 kv C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
B	11 KV Side				
1	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Isulators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
2	Clamps and Connectors as per Sheet no.1	No.	1	189486.00	189486.00
3	Take off structure for 3 outgoing feeder as per Sheet no.2	No.	1	256151.20	256151.20
4	Structure for 11 KV Main Bus as per Sheet no.3	No.	1	213971.20	213971.20
5	Armoured Copper control cable 7Cx2.5 sq.mm.	mtr	125	139.19	17398.75

D Cost of material

6363374.15

1	Transportation on material	4.00%	254535
2	T&P on material cost	1.00%	63634
3	Contingencies on material	2.50%	159084
5	Erection cost on material	5.00%	318169
6	Contractor supervision charges on material	5.00%	318169
7	Insurance , Labour & Finance Cost	3.00%	190901

Service Cost

Sub-Total

8	Turnkey Charges	5.00%	383393
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Total

8051259

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost of Material	10248850	8051259
Total Cost of the Estimate	10248850	8051259

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Sheet
No. 1

Cost data for Clamps & Connectors at 1x 10 MVA,3311 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	189486.00

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x5 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	256151.20

Cost data for Structure of 11 KV Main Bus at 1x5MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm2	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Cost data for Augmentation of 33/11 KV, 1x3.15 MVA to 1x10 MVA Power T/F (Outdoor)

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
2	C&R panel for 33 KV Transformer with Diff. Protection	No	1	62334.00	62334.00
3	33 kv C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
4	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
5	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
6	33 KV Isolators without EB (800 Amp.)	Set	2	50510.00	101020.00
7	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
8	AAAC 232 mm2	Mtr	300	127.40	38220.00
9	Structure for 33 KV CT as per Sheet no.1	No	1	27299.00	27299.00
10	Control cables for S/S as per Sheet no.2	No.	1	17398.75	17398.75
11	Clamps and Connectors as per Sheet no.3	No.	1	168366.00	168366.00
B	11 KV Side				
1	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
2	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
3	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	1	256151.20	256151.20
4	Structure for 11 KV Main Bus as per Sheet no.5	No.	1	213971.20	213971.20

D Cost of material 6805111.15

1	Transportation on material	4.00%	272204
2	T&P on material cost	1.00%	68051
3	Contigencies on material	2.50%	170128
5	Erection cost on material	5.00%	340256
6	Contractor supervision charges on material	5.00%	340256
7	Insurance , Labour & Finance Cost	3.00%	204153

Service Cost**Sub-Total**

8 Turnkey Charges 5.00% 410008

Total**8610167**

9 Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor 615736

Total Estimate**9225903**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	10960312	8610167
Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	784822	615736
Total Cost of the Estimate	11745134	9225903

Sheet
No.1

Cost data of Structure for 33 KV CT & PT at 1x10 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV CT	Kg.	315	51.80	16317.00
2	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Power T/F Neutral Earthing	Kg.	25	51.80	1295.00
4	G.I.Nut Bolts	Kg.	20	82.90	1658.00
				Total:	27299.00

Sheet
No.2

Cost data for Control cable 1 X 10 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 7Cx2.5 sq.mm.	mtr	125	139.19	17398.75
				TOTAL	17398.75

Sheet
No. 3

Cost data for Clamps & Connectors at 1x 10 MVA, 3311 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	168366.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	256151.20

Sheet
No.5

Cost data for Structure of 11 KV Main Bus at 1x10MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm2	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Cost data for Augmentation of 33/11 KV, 1x3.15 MVA to 1x5 MVA Power T/F (Outdoor)[if associated switch gear not available]

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
2	33 KV P.T.	Nos	3	18876.00	56628.00
3	33 kV C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
4	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
5	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
6	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
7	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
8	Structure for 33 KV CT & PT as per Sheet no.1	No	1	48071.00	48071.00
9	Control cables for S/S as per Sheet no.2	No.	1	85383.45	85383.45
10	Clamps and Connectors as per Sheet no.3	No.	1	189486.00	189486.00
11	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00

D Cost of material

3997843.45

1	Transportation on material	4.00%	159914
2	T&P on material cost	1.00%	39978
3	Contingencies on material	2.50%	99946
5	Erection cost on material	5.00%	199892
6	Contractor supervision charges on material	5.00%	199892
7	Insurance , Labour & Finance Cost	3.00%	119935
	Service Cost		819558
	Sub-Total		4817401
8	Turnkey Charges	5.00%	240870

Total

5058271

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	6438927	5058271
Total Cost of the Estimate	6438927	5058271

Sheet
No.1

Cost data of Structure for 33 KV CT & PT at 1x5 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
	Total:				48071.00

Sheet
No.2

Cost data for Control cable 1 X 5 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
	TOTAL				85383.45

Cost data for Clamps & Connectors at 1x 5 MVA, 33/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	189486.00

Cost data for Augmentation of 33/11 KV, 2x3.15 MVA to 2x5 MVA Power T/F (Outdoor)[if associated switch gears available]

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	Power Transformer 33/11 KV, 5 MVA	No	2	3003469.00	6006938.00
2	33 kv C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
3	33 KV VCB complete 1600 Amp (O.D.)	Set	2	204195.00	408390.00
4	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
5	33 KV Isolators without EB (800 Amp.)	Set	4	50510.00	202040.00
6	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
6	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
7	Clamps and Connectors as per Sheet no.5	No.	1	189486.00	189486.00
9	Control cables for S/S as per Sheet no.7	No.	2	85383.45	170766.90
10	Structure for 33 KV CT & PT as per Sheet no.3	No	2	48071.00	96142.00
11	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	121541.00	121541.00
12	Earthing complete as per Sheet no.2	Set	1	240980.00	240980.00
13	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
14	Structure for 11 KV Main Bus as per Sheet no.6	No.	1	213971.20	213971.20
15	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	1	256151.20	256151.20

D Cost of material **8993583.30**

1	Transportation on material	4.00%	359743
2	T&P on material cost	1.00%	89936
3	Contigencies on material	2.50%	224840
5	Erection cost on material	5.00%	449679
6	Contractor supervision charges on material	5.00%	449679
7	Insurance , Labour & Finance Cost	3.00%	269807
	Service Cost		1843685
	Sub-Total		10837268
8	Turnkey Charges	5.00%	541863

Total **11379131**

9 Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor 615736

Total Cost of Estimate**11994867**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	14485065	11379131
Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	784822	615736
Total Cost of the Estimate	15269888	11994867

--
Sheet
No.1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x5 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x5 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x5 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	256151.20

Sheet
No. 5

Cost data for Clamps & Connectors at 1x 5 MVA, 3311 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	189486.00

Cost data for Structure of 11 KV Main Bus at 1x5MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Cost data for Control cable 1 X 5 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

Cost data for Augmentation of 33/11 KV, 2x5 MVA to 2x10 MVA Power T/F (Outdoor)

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	Power Transformer 33/11 KV, 10 MVA	No	2	4687202.00	9374404.00
2	C&R panel for 33 KV Transformer with Diff. Protection	No	2	62334.00	124668.00
3	AAAC 232 mm2	Mtr	300	127.40	38220.00
4	33 kv C. T. (400-200/1-1-1)	Nos	6	25011.00	150066.00
5	Clamps and Connectors as per Sheet no.1	No.	1	251340.00	251340.00
B	11 KV Side				
1	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
2	Take off structure for 3 outgoing feeder as per Sheet no.2	No.	2	274659.20	549318.40
3	Structure for 11 KV Main Bus as per Sheet no.3	No.	2	213971.20	427942.40
4	Armoured Copper control cable 7Cx2.5 sq.mm.	mtr	250	139.19	34797.50

D Cost of material

12655242.30

1	Transportation on material	4.00%	506210
2	T&P on material cost	1.00%	126552
3	Contingencies on material	2.50%	316381
5	Erection cost on material	5.00%	632762
6	Contractor supervision charges on material	5.00%	632762
7	Insurance , Labour & Finance Cost	3.00%	379657
	Service Cost		2594325
	Sub-Total		15249567
8	Turnkey Charges	5.00%	762478

Total

16012045

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	20382533	16012045
Total Cost of the Estimate	20382533	16012045

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Sheet
No. 1

Cost data for Clamps & Connectors at 2x 10 MVA, 3311 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
		Total:			251340.00

Cost data for Take off structure for 11 KV Feeders 3 outlets at 2x10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	274659.20

Cost data for Structure of 11 KV Main Bus at 2x10MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm2	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Cost data for 33/11 KV, 1x5 MVA Additional Power T/F (Outdoor) without Gantry structure

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	Earthing complete as per sheet No. 1	Set	1	240980.00	240980.00
6	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
7	33 kV C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
8	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
9	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
10	Structure for 33 KV CT as per Sheet no. 2	No	1	31754.00	31754.00
11	G.I.Nut Bolts	KG	100	82.90	8290.00
B	11 KV SIDE				
12	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
13	11 kV Pin Insulators with G.I. Pins	No	12	135.00	1620.00
14	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
15	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	1	256151.20	256151.20
16	Clamps and Connectors as per Sheet no. 4	No.	1	185136.00	185136.00
17	Structure for 11 KV Main Bus as per Sheet no.5	No.	1	213971.20	213971.20
18	Control cables for S/S as per Sheet no.6	No.	1	85383.45	85383.45

D Cost of material 5452967.85

1	Transportation on material	4.00%	218119
2	T&P on material cost	1.00%	54530
3	Contingencies on material	2.50%	136324
5	Erection cost on material	5.00%	272648
6	Contractor supervision charges on material	5.00%	272648
7	Insurance , Labour & Finance Cost	3.00%	163589

Service Cost**Sub-Total**

8 Turnkey Charges 5.00% 328541

Total**6899368**

9 Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor No. 1 615735.90 615736

Total Cost of Estimate**7515103**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	8782550	6899368
Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	784822	615736
Total Cost of the Estimate	9567372	7515103

Sheet
No.1

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
Total:					240980.00

Sheet
No.2

Cost data of Structure for 33 KV CT & LA at 1x5 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV CT	Kg.	360	51.80	18648.00
2	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
Total:					31754.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 5 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
Total:					256151.20

Sheet
No. 4

Cost data for Clamps & Connectors at 1x 5 MVA, 3311 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
Total:					185136.00

Sheet
No.5

Cost data for Structure of 11 KV Main Bus at 1x 5 MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Sheet
No.6

Cost data for Control cable 1 X 5 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

Cost data for Additional 33/11 KV, 1x 10 MVA (Outdoor) without Gantry Structure

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
6	AAAC 232 mm2	MTR	200	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
8	Earthing complete as per Sheet no.1	Set	1	240980.00	240980.00
9	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
10	33 kv C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
11	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
12	C&R panel for 33 KV Transformer with Diff. Protection	No	1	62334.00	62334.00
13	33 kv Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
14	Structure for 33 KV CT as per Sheet no.2	No	1	31754.00	31754.00
15	G.I.Nut Bolts	KG	150	82.90	12435.00
B	11 KV SIDE				
16	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
17	11 kv Pin Insulators with G.I. Pins	No	12	135.00	1620.00
18	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
19	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	1	327608.20	327608.20
20	Clamps and Connectors as per Sheet no.4	No.	1	189906.00	189906.00
21	Structure for 11 KV Main Bus as per Sheet no.5	No.	1	266852.20	266852.20
22	Control cables for S/S as per Sheet no.6	No.	1	85383.45	85383.45
23	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

Cost of material

7338290.85

1	Transportation on material	4.00%	293532
2	T&P on material cost	1.00%	73383
3	Contigencies on material	2.50%	183457
5	Erection cost on material	5.00%	366915
6	Contractor supervision charges on material	5.00%	366915
7	Insurance , Labour & Finance Cost	3.00%	220149
	Service Cost		1504350
	Sub-Total		8842640
8	Turnkey Charges	5.00%	442132

Total

9284772

9	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	No.	1	615735.90	615736
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Total Cost of Estimate

9900508

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	11819051	9284772
Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	784822	615736
Total Cost of the Estimate	12603874	9900508

Sheet
No.1

Cost data for Earthing Work at 1x 10 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
Total:					240980.00

Sheet
No.2

Cost data of Structure for 33 KV CT & PT at 1x10 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV CT	Kg.	360	51.80	18648.00
2	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
Total:					31754.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm2	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
Total:					327608.20

Sheet
No. 4

Cost data for Clamps & Connectors at 1x 10 MVA, 3311 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	30	718.00	21540.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
Total:					189906.00

Cost data for Structure of 11 KV Main Bus at 1x10MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm2	Rmt.	150	127.40	19110.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	266852.20

Cost data for Control cable 1 X 10 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

Cost data for 33/11 KV, 1x5 MVA Additional Power T/F (Outdoor) with Gantry structure for 33 KV bus

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
6	AAAC 232 mm2	MTR	200	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
8	Earthing complete as per sheet No. 1	Set	1	240980.00	240980.00
9	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
10	33 kv C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
11	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
12	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
13	Structure for 33 KV CT as per Sheet no. 2	No	1	31754.00	31754.00
14	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.7	Nos	1	121541.00	121541.00
15	33 kv Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
16	G.I.Nut Bolts	KG	100	82.90	8290.00
17	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
B	11 KV SIDE				
18	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Isolators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
19	11 kV Pin Insulators with G.I. Pins	No	12	135.00	1620.00
20	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
21	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	1	256151.20	256151.20
22	Clamps and Connectors as per Sheet no. 4	No.	1	185136.00	185136.00
23	Structure for 11 KV Main Bus as per Sheet no.5	No.	1	213971.20	213971.20
24	Control cables for S/S as per Sheet no.6	No.	1	85383.45	85383.45

D Cost of material**5617244.85**

1	Transportation on material	4.00%	224690
2	T&P on material cost	1.00%	56172
3	Contingencies on material	2.50%	140431
5	Erection cost on material	5.00%	280862
6	Contractor supervision charges on material	5.00%	280862
7	Insurance , Labour & Finance Cost	3.00%	168517
	Service Cost		1151535
	Sub-Total		6768780
8	Turnkey Charges	5.00%	338439

Total**7107219**

9	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	No.	1	615735.90	615736
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Total Cost of Estimate**7722955**

Particulars		
	DPR Amount	Tender/ Estimate Amount
Cost with overheads on Material		
	61.06%	26.525%
Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	9047135	7107219
	784822	615736
Total Cost of the Estimate	9831957	7722955

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 33 KV CT & LA at 1x5 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV CT	Kg.	360	51.80	18648.00
2	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	31754.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 5 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	256151.20

Sheet
No. 4

Cost data for Clamps & Connectors at 1x 5 MVA, 3311 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	185136.00

Sheet
No.5

Cost data for Structure of 11 KV Main Bus at 1x 5 MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Sheet
No.6

Cost data for Control cable 1 X 5 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

Sheet
No.7

Cost data for 33 KV Gantry M.S. Structure/Steel Section for 1x 5 MVA & 1x10 MVA 33/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Cost data for Additional 33/11 KV, 1x 10 MVA (Outdoor) with Gantry structure for 33 KV bus.

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	121541.00	121541.00
6	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
9	Earthing complete as per Sheet no.2	Set	1	240980.00	240980.00
10	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
11	33 kv C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
12	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
13	C&R panel for 33 KV Transformer with Diff. Protection	No	1	62334.00	62334.00
14	33 kv Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
15	Structure for 33 KV CT & LA as per Sheet no.3	No	1	31754.00	31754.00
16	G.I.Nut Bolts	KG	150	82.90	12435.00
17	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
B	11 KV SIDE				
18	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
19	11 kv Pin Insulators with G.I. Pins	No	12	135.00	1620.00
20	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
21	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	1	327608.20	327608.20
22	Clamps and Connectors as per Sheet no.5	No.	1	189906.00	189906.00
23	Structure for 11 KV Main Bus as per Sheet no.6	No.	1	266852.20	266852.20
24	Control cables for S/S as per Sheet no.7	No.	1	85383.45	85383.45
25	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

Cost of material**7464031.85**

1	Transportation on material	4.00%	298561
2	T&P on material cost	1.00%	74640
3	Contingencies on material	2.50%	186601
5	Erection cost on material	5.00%	373202
6	Contractor supervision charges on material	5.00%	373202
7	Insurance , Labour & Finance Cost	3.00%	223921

Service Cost**1530127****Sub-Total****8994158**

8	Turnkey Charges	5.00%	449708
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Total**9443866**

9	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	No.	1	615735.90	615736
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Total Cost of Estimate**10059602**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	12021570	9443866
Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	784822	615736
Total Cost of the Estimate	12806392	10059602

Sheet
No.1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x10 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Sheet
No.2

Cost data for Earthing Work at 1x 10 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 33 KV CT & LA at 1x5 MVA 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV CT	Kg.	360	51.80	18648.00
2	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	31754.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x5 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm2	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	327608.20

Sheet
No. 5

Cost data for Clamps & Connectors at 1x 5 MVA, 3311 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	30	718.00	21540.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	189906.00

Sheet
No.6

Cost data for Structure of 11 KV Main Bus at 1x5MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	266852.20

Sheet
No.7

Cost data for Control cable 1 X 5 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
6	AAAC 232 mm2	MTR	200	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
8	Earthing complete as per Sheet no.1	Set	1	270490.00	270490.00
9	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
10	33 KV P.T.	Nos	3	18876.00	56628.00
11	33 kV C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
12	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
13	C&R panel for 33 KV Transformer with 1 Amp. Relay	No	1	56858.00	56858.00
14	33 kV Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
15	Structure for 33 KV CT & LA as per Sheet no.2	No	1	31754.00	31754.00
16	G.I.Nut Bolts	KG	150	82.90	12435.00
17	Marshalling Box	No.	1	4284.00	4284.00
18	Clamps and Connectors as per Sheet no.3	No.	1	273276.00	273276.00
B	11 KV SIDE				
19	11kV I D switchgear (1 I/c+1 B/c+4O/G)	Set	1	1703020.00	1703020.00
20	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	300	1194.00	358200.00
21	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	4	1662.00	6648.00
22	Control cables for S/S as per Sheet no.4	No.	1	85383.45	85383.45
23	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**6441150.45**

1	Transportation on material	4.00%	257646
2	T&P on material cost	1.00%	64412
3	Contigencies on material	2.50%	161029
5	Erection cost on material	5.00%	322058
6	Contractor supervision charges on material	5.00%	322058
7	Insurance , Labour & Finance Cost	3.00%	193235

Service Cost**1320436****Sub-Total****7761586**

8	Turnkey Charges	5.00%	388079
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Total**8149666**

9	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor		615736
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Total Cost of Estimate**8765402**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	10374117	8149666
Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	784822	615736
Total Cost of the Estimate	11158939	8765402

Sheet
No.1

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	G.I..Flat 50 x 6 mm	Kg.	1500	66.78	100170.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries such as N/B, Washers, Welding etc.	L.S.	1	2900.00	2900.00
				Total:	270490.00

Sheet
No.2

Cost data of Structure for 33 KV CT & LA at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV CT	Kg.	360	51.80	18648.00
2	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	31754.00

Sheet
No.3

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	273276.00

Sheet
No.4

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

Cost data for 33/11 KV, 1x10 MVA Additional Power T/F, 33 kV Outdoor, 11 kV Indoor, without Gantry structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33 KV SIDE				
1	33 KV Lightning Arrestors (Station type)	Set	2	13571.00	27142.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	3	50510.00	151530.00
4	33 KV Post Insulator	Nos	3	918.00	2754.00
5	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
6	AAAC 232 mm2	MTR	200	127.40	25480.00
7	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
8	Earthing complete as per Sheet no.1	Set	1	240980.00	240980.00
9	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
10	33 KV P.T.	Nos	3	18876.00	56628.00
11	33 kV C. T. (400-200/1-1-1)	Nos	3	25011.00	75033.00
12	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
13	C&R panel for 33 KV Transformer with Diff. Protection	No	1	62334.00	62334.00
14	33 kV Pin Insulators with G.I. Pins	Nos	6	541.00	3246.00
15	Structure for 33 KV CT & LA as per Sheet no.2	No	1	31754.00	31754.00
16	G.I.Nut Bolts	KG	150	82.90	12435.00
17	Marshalling Box	No.	1	4284.00	4284.00
18	Clamps and Connectors as per Sheet no.3	No.	1	273276.00	273276.00
B	11 KV SIDE				
19	11kV I D switchgear (1 I/c+1 B/c+4O/G)	Set	1	1703020.00	1703020.00
20	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	300	1194.00	358200.00
21	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	4	1662.00	6648.00
22	Control cables for S/S as per Sheet no.4	No.	1	85383.45	85383.45
23	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**8100849.45**

1	Transportation on material	4.00%	324034
2	T&P on material cost	1.00%	81008
3	Contigencies on material	2.50%	202521
5	Erection cost on material	5.00%	405042
6	Contractor supervision charges on material	5.00%	405042
7	Insurance , Labour & Finance Cost	3.00%	243025

Service Cost**1660674****Sub-Total****9761524**

8	Turnkey Charges	5.00%	488076
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Total**10249600**

9	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor		615736
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Total Cost of Estimate**10865336**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	13047228	10249600
Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	784822	615736
Total Cost of the Estimate	13832051	10865336

Sheet
No.1

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 33 KV CT & LA at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV CT	Kg.	360	51.80	18648.00
2	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	31754.00

Sheet
No.3

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	273276.00

Sheet
No.4

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

Item Code No. 301C					
Cost data for Additional 33/22 KV, 1x 5 MVA (Outdoor)					
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	33 KV Lightning Arrestors (Station type)	Set	1	13571.00	13571.00
2	33 KV VCB complete 1600 Amp (O.D.)	No	1	204195.00	204195.00
3	33 kv C. T. (400-200/1-1-1)	No	3	25011.00	75033.00
4	33 KV Isolators without EB (800 Amp.)	Set	2	50510.00	101020.00
5	Power Transformer 33/22 KV 5 MVA	No	1	3207040.00	3207040.00
6	Earthing complete as per Sheet no.4	Set	1	240980.00	240980.00
7	C&R panel for 33 KV Transformer with 1 Amp. Relay	Set	1	56858.00	56858.00
8	G.I.Nut Bolts	Kg	20	82.90	1658.00
9	Marshalling Box	No	1	4284.00	4284.00
10	Fire Extinguisher with stand	Set	1	4200.00	4200.00
11	Structure for 33 KV CT/LA/Post Insulator as per Table No 1	No	1	31754.00	31754.00
22KV SIDE					
1	22 kv 500 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Isolators, C.T. & P.T. etc.	Set	1	1290945.00	1290945.00
2	22 KV Lightning Arrestors (Station type)	Set	1	11884.00	11884.00
3	22 kv Pin Insulators with G.I. Pins	No	12	336.00	4032.00
4	Clamps and Connectors as per Table No 2	No	1	185136.00	185136.00
5	Control Cables as per Table No 3	No	1	85383.45	85383.45
6	Take off structure for 3 outgoing feeder as per Sheet no.5	No.	1	267122.08	256151.20
7	Structure for 11 KV Main Bus as per Sheet no.6	No.	1	215501.27	213971.20
TOTAL COST OF MATERIAL					5988095.85

1	Transportation on material	4.00%	239524
2	T&P on material cost	1.00%	59881
3	Contingencies on material	2.50%	149702
5	Erection cost on material	5.00%	299405
6	Contractor supervision charges on material	5.00%	299405
7	Insurance , Labour & Finance Cost	3.00%	179643
Service Cost			1227560
Sub-Total			7215655
8	Turnkey Charges	5.00%	360783
Total			7576438

9	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor		615736
Total Cost of Estimate			8192174

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	9644427	7576438
Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	784822	615736
Total Cost of the Estimate	10429250	8192174

Sheet
No.1

Cost data of Structure for 33 KV CT & LA at 1x5 MVA 33/22 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV CT	Kg.	360	51.80	18648.00
2	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	31754.00

Sheet
No. 2

Cost data for Clamps & Connectors at 1x 5 MVA, 33/22 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	185136.00

Sheet
No - 3

Cost data for Control cable 1 X 5 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

Sheet
No.4

Cost data for Earthing Work at 1x 5 MVA at 33/22 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No : 5

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x5 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	256151.20

Cost data for Structure of 11 KV Main Bus at 1x5MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Item Code No. 302C					
Cost data for Additional 33/22 KV, 1x 10 MVA (Outdoor)					
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	33 KV Lightning Arrestors (Station type)	Set	1	13571.00	13571.00
2	33 KV VCB complete 1600 Amp (O.D.)	No	1	204195.00	204195.00
3	33 kv C. T. (400-200/1-1-1)	No	3	25011.00	75033.00
4	33 KV Isolators without EB (800 Amp.)	Set	2	50510.00	101020.00
5	Power Transformer 33/22 KV 10 MVA	No	1	4955754.00	4955754.00
6	Earthing complete as per Sheet no.4	Set	1	240980.00	240980.00
7	C&R panel for 33 KV Transformer with Diff. Protection	Set	1	62334.00	62334.00
8	G.I.Nut Bolts	Kg	20	82.90	1658.00
9	Marshalling Box	No	1	4284.00	4284.00
10	Fire Extinguisher with stand	Set	1	4200.00	4200.00
11	Structure for 33 KV CT/LA/Post Insulator as per Table No 1	No	1	31754.00	31754.00
22KV SIDE					
1	22 kv 500 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	1290945.00	1290945.00
2	22 KV Lightning Arrestors (Station type)	Set	1	11884.00	11884.00
3	22 kv Pin Insulators with G.I. Pins	No	12	336.00	4032.00
4	Clamps and Connectors as per Table No 2	No	1	185136.00	185136.00
5	Control Cables as per Table No 3	No	1	85383.45	85383.45
6	Take off structure for 3 outgoing feeder as per Sheet no.5	No.	1	267122.08	256151.20
7	Structure for 11 KV Main Bus as per Sheet no.6	No.	1	215501.27	213971.20
TOTAL COST OF MATERIAL					7742285.85

1	Transportation on material	4.00%	309691
2	T&P on material cost	1.00%	77423
3	Contingencies on material	2.50%	193557
5	Erection cost on material	5.00%	387114
6	Contractor supervision charges on material	5.00%	387114
7	Insurance , Labour & Finance Cost	3.00%	232269
Service Cost			1587169
Sub-Total			9329454
8	Turnkey Charges	5.00%	466473
Total			9795927
9	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor		615736
Total Cost of Estimate			10411663

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	12469726	9795927
Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	784822	615736
Total Cost of the Estimate	13254548	10411663

Sheet
No.1

Cost data of Structure for 33 KV CT & PT at 1x10 MVA 33/22 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV CT	Kg.	360	51.80	18648.00
2	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
Total:					31754.00

Sheet
No. 2

Cost data for Clamps & Connectors at 1x 10 MVA, 33/22 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	185136.00

Sheet
No - 3

Cost data for Control cable 1 X 10 MVA S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

Sheet
No.4

Cost data for Earthing Work at 1x 10 MVA at 33/22 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No : 5

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x5 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	256151.20

Cost data for Structure of 11 KV Main Bus at 1x5MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	2	11884.00	23768.00
2	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
3	22 KV Isolators without EB (800 Amp.)	Set	3	35680.00	107040.00
4	22 KV Post Insulator	Nos	3	835.00	2505.00
5	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	1	121541.00	121541.00
6	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
9	Earthing complete as per Sheet no.2	Set	1	240980.00	240980.00
10	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	1	3305209.00	3305209.00
11	22 KV P.T.	Nos	3	17855.00	53565.00
12	22 KV C.T. Three core.	Nos	3	24999.00	74997.00
13	22 KV VCB complete 1600 Amp (O.D.)	Set	1	179600.00	179600.00
14	C&R panel for 22 KV Transformer with 1 A relay	No	1	75834.00	75834.00
15	22 kv Pin Insulators with G.I. Pins	Nos	6	336.00	2016.00
16	Structure for 22 KV CT & PT as per Sheet no.3	No	1	48071.00	48071.00
17	G.I.Nut Bolts	KG	150	82.90	12435.00
18	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
B	11 KV SIDE				
19	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
20	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
21	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	1	256151.20	256151.20
22	11 kv Pin Insulators with G.I. Pins	No.	12	135.00	1620.00
23	Clamps and Connectors as per Sheet no.5	No.	1	183453.00	183453.00
24	Structure for 11 KV Main Bus as per Sheet no.6	No.	1	213971.20	213971.20
25	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
26	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
27	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8.	No.	1	195591.40	195591.40
28	Control cables for S/S as per Sheet no.9	No.	1	85383.45	85383.45
29	AC Distribution Board 'B' type	No.	1	24325.00	24325.00
D	Cost of material				6430483.25

1	Transportation on material	4.00%	257219
2	T&P on material cost	1.00%	64305
3	Contigencies on material	2.50%	160762
5	Erection cost on material	5.00%	321524
6	Contractor supervision charges on material	5.00%	321524
7	Insurance , Labour & Finance Cost	3.00%	192914

Service Cost**1318249****Sub-Total****7748732**

8	Turnkey Charges	5.00%	387437
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Total**8136169**

9	Civil works	No.	1	7233264
Total Cost of Estimate				15369433

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	10356936	8136169
Civil works	9219583	7233264
Total Cost of the Estimate	19576519	15369433

Sheet
No.1

Cost data for 22 KV Gantry M.S.structure/steel section for 1x5 MVA Sub stn. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Sheet
No.2

Cost data for Earthing Work at 1x5 MVA at 22/11 KV sub stn. (outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 22 KV CT & PT at 1x5 MVA 22/11 KV Sub Stn.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x5 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	256151.20

Cost data for Clamps & Connectors at 1x5 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
		Total:			183453.00

Cost data for Structure of 11 KV Main Bus at 1x5MVA, 22/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
		Total:			213971.20

Cost data for Yard Lighting of 1 x5 MVA , 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
					215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x5 MVA 22/11 KV sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
		Total:			195591.40

Cost data for Control cable 1 X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	0
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7233264.494

Cost data for 22/11 KV, 1x10 MVA Substation (Outdoor)

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	2	11884.00	23768.00
2	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
3	22 KV Isolators without EB (800 Amp.)	Set	3	35680.00	107040.00
4	22 KV Post Insulator	Nos	3	835.00	2505.00
5	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	1	121541.00	121541.00
6	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
9	Earthing complete as per Sheet no.2	Set	1	240980.00	240980.00
10	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	1	4769649.00	4769649.00
11	22 KV P.T.	Nos	3	17855.00	53565.00
12	22 KV C.T. Three core.	Nos	3	24999.00	74997.00
13	22 KV VCB complete 1600 Amp (O.D.)	Set	1	179600.00	179600.00
14	C&R panel for 22 KV Transformer with Diff. Protection	No	1	113866.00	113866.00
15	22 kv Pin Insulators with G.I. Pins	Nos	6	336.00	2016.00
16	Structure for 22 KV CT & PT as per Sheet no.3	No	1	48071.00	48071.00
17	G.I.Nut Bolts	KG	150	82.90	12435.00
18	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
B	11 KV SIDE				
19	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
20	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
21	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	1	326816.20	326816.20
22	11 kv Pin Insulators with G.I. Pins	No.	12	135.00	1620.00
23	Clamps and Connectors as per Sheet no.5	No.	1	188223.00	188223.00
24	Structure for 11 KV Main Bus as per Sheet no.6	No.	1	266852.20	266852.20
25	S/S Yard lighting as per Sheet no.7	No.	1	189411.00	189411.00
26	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
27	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8.	No.	1	195591.40	195591.40
28	Control cables for S/S as per Sheet no.9	No.	1	85383.45	85383.45
29	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

8034803.25**Cost of material**

1	Transportation on material	4.00%	321392
2	T&P on material cost	1.00%	80348
3	Contingencies on material	2.50%	200870
5	Erection cost on material	5.00%	401740
6	Contractor supervision charges on material	5.00%	401740
7	Insurance , Labour & Finance Cost	3.00%	241044

Service Cost**Sub-Total**

8	Turnkey Charges	5.00%	484097
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Total

9	Civil works	No.	1	7233264
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Total Cost of Estimate**17399299**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	12940854	10166035
Civil works	9219583	7233264
Total Cost of the Estimate	22160437	17399299

Sheet
No.1

Cost data for 22 KV Gantry M.S.structure/steel section for 1x10 MVA Sub stn. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	1.984	48500.00	96224.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.522	48500.00	25317.00
				Total:	121541.00

Sheet
No.2

Cost data for Earthing Work at 1x10 MVA at 22/11 KV sub stn. (outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 22 KV CT & PT at 1x10 MVA 22/11 KV Sub Stn.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x10 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	326816.20

Cost data for Clamps & Connectors at 1x10 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	30	718.00	21540.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	188223.00

Cost data for Structure of 11 KV Main Bus at 1x10MVA, 22/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm2	Rmt.	150	127.40	19110.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	266852.20

Cost data for Yard Lighting of 1 x10 MVA , 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	12	6300.00	75600.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	12	4815.00	57780.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cmt	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	189411.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x10 MVA 22/11 KV sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
		Total:			195591.40

Cost data for Control cable 1 X10 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	0
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7233264.494

Item Code No.0403					
Cost data for 22/11 KV, 2x5 MVA Substation (Outdoor)					
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
2	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
3	22 KV Isolators without EB (800 Amp.)	Set	5	35680.00	178400.00
4	22 KV Post Insulator	Nos	6	835.00	5010.00
5	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	2	194970.00	389940.00
6	Disc Insulator 11 KV 70 KN	Nos	72	344.00	24768.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
9	Earthing complete as per Sheet no.2	Set	2	240980.00	481960.00
10	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	2	3305209.00	6610418.00
11	22 KV P.T.	Nos	3	17855.00	53565.00
12	22 KV C.T. Three core.	Nos	12	24999.00	299988.00
13	22 KV VCB complete 1600 Amp (O.D.)	Set	2	179600.00	359200.00
14	C&R panel for 22 KV Transformer with 1 A relay	No	2	75834.00	151668.00
16	22 kV Pin Insulators with G.I. Pins	Nos	24	336.00	8064.00
17	Structure for 22 KV CT & PT as per Sheet no.3	No	2	48071.00	96142.00
18	G.I.Nut Bolts	KG	150	82.90	12435.00
19	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
20	Marshalling Box	Nos.	4	4284.00	17136.00
B	11 KV SIDE				
21	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
22	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
23	Take off structure for 6 outgoing feeder as per Sheet no.4	No.	2	274659.20	549318.40
24	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
25	Clamps and Connectors as per Sheet no.5	No.	1	183453.00	183453.00
26	Structure for 11 KV Main Bus as per Sheet no.6	No.	1	213971.20	213971.20
27	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
28	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
29	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8.	No.	1	195591.40	195591.40
30	Control cables for S/S as per Sheet no.9	No.	2	171605.90	343211.80
31	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

Cost of material

12364251.80

1	Transportation on material	4.00%	494570
2	T&P on material cost	1.00%	123643
3	Contigencies on material	2.50%	309106
5	Erection cost on material	5.00%	618213
6	Contractor supervision charges on material	5.00%	618213
7	Insurance , Labour & Finance Cost	3.00%	370928

Service Cost

2534672

Sub-Total

14898923

8	Turnkey Charges	5.00%	744946
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Total

15643870

9	Civil works	No.	1	7849000
Total Cost of Estimate				23492870

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	19913864	15643870
Civil works	10004405	7849000
Total Cost of the Estimate	29918269	23492870

Sheet
No.1

Cost data for 22 KV Gantry M.S.structure/steel section for 2x5 MVA Sub stn. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x5 MVA at 22/11 KV sub stn. (outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 22 KV CT & PT at 2x5 MVA 22/11 KV Sub Stn.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 2x5 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	274659.20

Sheet
No. 5

Cost data for Clamps & Connectors at 2x5 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	183453.00

Sheet
No.6

Cost data for Structure of 11 KV Main Bus at 2x5MVA, 22/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Sheet
No.7

Cost data for Yard Lighting of 2x5 MVA , 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
					215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x5 MVA 22/11 KV sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	195591.40

Cost data for Control cable 2X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7849000.394

Cost data for 22/11 KV, 2x10 MVA Substation (Outdoor)

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
2	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
3	22 KV Isolators without EB (800 Amp.)	Set	5	35680.00	178400.00
4	22 KV Post Insulator	Nos	6	835.00	5010.00
5	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	2	194970.00	389940.00
6	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
9	Earthing complete as per Sheet no.2	Set	2	240980.00	481960.00
10	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	2	4769649.00	9539298.00
11	22 KV P.T.	Nos	3	17855.00	53565.00
12	22 KV C.T. Three core.	Nos	6	24999.00	149994.00
13	22 KV VCB complete 1600 Amp (O.D.)	Set	2	179600.00	359200.00
14	C&R panel for 22 KV Transformer with Diff. Protection	No	2	113866.00	227732.00
16	22 kv Pin Insulators with G.I. Pins	Nos	12	336.00	4032.00
17	Structure for 22 KV CT & PT as per Sheet no.3	No	2	48071.00	96142.00
18	G.I.Nut Bolts	KG	150	82.90	12435.00
19	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
B	11 KV SIDE				
20	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
21	Take off structure for 6 outgoing feeder as per Sheet no.4	No.	2	345324.20	690648.40
22	11 kv Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
23	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
24	Clamps and Connectors as per Sheet no.5	No.	1	188223.00	188223.00
25	Structure for 11 KV Main Bus as per Sheet no.6	No.	1	266852.20	266852.20
26	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
27	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
28	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	199541.40	199541.40
29	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
30	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

Cost of material**15216974.90**

1	Transportation on material	4.00%	608679
2	T&P on material cost	1.00%	152170
3	Contingencies on material	2.50%	380424
5	Erection cost on material	5.00%	760849
6	Contractor supervision charges on material	5.00%	760849
7	Insurance , Labour & Finance Cost	3.00%	456509
	Service Cost		3119480
	Sub-Total		18336455
8	Turnkey Charges	5.00%	916823
	Total		19253277
9	Civil works	No.	1
	Total Cost of Estimate		27127369

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	24508460	19253277
Civil works	10036387	7874091
Total Cost of the Estimate	34544846	27127369

Cost data for 22 KV Gantry M.S.Structure/Steel Section for 2x 10 MVA, 22/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 10 MVA at 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 22 KV CT & PT at 2x 10 MVA, 22/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 2x5 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm2	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	345324.20

Cost data for Clamps & Connectors at 2x10 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	30	718.00	21540.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	188223.00

Cost data for Structure of 11 KV Main Bus at 2X10MVA, 22/11 KV Sub-station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	266852.20

Cost data for Yard Lighting of 2X10 MVA, 22/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x10 MVA 22/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data Control cable 2 X10 MVA 22/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	25090.97
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7874091.364

Cost data for 22/11 KV,1x5 MVA & 1x10 MVA Outdoor Substation

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
2	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
3	22 KV Isolators without EB (800 Amp.)	Set	10	35680.00	356800.00
4	22 KV Post Insulator	Nos	6	835.00	5010.00
5	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	2	194970.00	389940.00
6	Disc Insulator 11 KV 70 KN	Nos	72	344.00	24768.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
9	Earthing complete as per Sheet no.2	Set	2	240980.00	481960.00
10	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	1	3305209.00	3305209.00
11	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	1	4769649.00	4769649.00
12	22 KV P.T.	Nos	3	17855.00	53565.00
13	22 KV C.T. Three core.	Nos	12	24999.00	299988.00
14	22 KV VCB complete 1600 Amp (O.D.)	Set	2	179600.00	359200.00
15	C&R panel for 22 KV Transformer with Diff. Protection	No	1	113866.00	113866.00
16	C&R panel for 22 KV Transformer with 1 A relay	No	1	75834.00	75834.00
17	22 kv Pin Insulators with G.I. Pins	Nos	24	336.00	8064.00
18	Structure for 22 KV CT & PT as per Sheet no.3	No	2	48071.00	96142.00
19	G.I.Nut Bolts	KG	150	82.90	12435.00
20	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
21	Marshalling Box	Nos.	4	4284.00	17136.00
B	11 KV SIDE				
22	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
23	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
24	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	333078.20	666156.40
25	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
26	Clamps and Connectors as per Sheet no.5	No.	1	188223.00	188223.00
27	Structure for 11 KV Main Bus as per Sheet no.6	No.	2	281333.20	562666.40
28	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
29	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
30	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8.	No.	1	195591.40	195591.40
31	Control cables for S/S as per Sheet no.9	No.	2	171605.90	343211.80
32	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

Cost of material**14515427.00**

1	Transportation on material	4.00%	580617
2	T&P on material cost	1.00%	145154
3	Contigencies on material	2.50%	362886
5	Erection cost on material	5.00%	725771
6	Contractor supervision charges on material	5.00%	725771
7	Insurance , Labour & Finance Cost	3.00%	435463

Service Cost**2975663****Sub-Total****17491090**

8	Turnkey Charges	5.00%	874554
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Total**18365644**

9	Civil works	No.	1	7874091
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Total Cost of Estimate**26239735**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	23378547	18365644
Civil works	10036387	7874091
Total Cost of the Estimate	33414933	26239735

Sheet
No.1

Cost data for 22 KV Gantry M.S.structure/steel section for 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 22/11 KV for 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 22 KV CT & PT at 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 22/11 KV ,1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm2	Rmt.	150	127.40	19110.00
12	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	19	559.00	10621.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	333078.20

Sheet
No. 5

Cost data for Clamps & Connectors at 22/11 kv 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	30	718.00	21540.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
		Total:			188223.00

Sheet
No.6

Cost data for Structure of 11 KV Main Bus at 22/11 KV 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm2	Rmt.	150	127.40	19110.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	12	559.00	6708.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
14	Miscellaneous material	LS	1	475.00	475.00
		Total:			281333.20

Sheet
No.7

Cost data for Yard Lighting of 22/11 KV 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
					215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 22/11 KV 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	195591.40

Cost data for Control cable 22/11 KV 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
5	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	25090.97
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7874091.364

Cost data for 22/11 KV, 1x5 MVA Substation (Outdoor) with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	2	11884.00	23768.00
2	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
3	22 KV Isolators without EB (800 Amp.)	Set	3	35680.00	107040.00
4	22 KV Post Insulator	Nos	3	835.00	2505.00
5	RSJ 125x70, 8 m long	Nos	8	4683.00	37464.00
6	MS Channel 100x50x6 mm	Kg.	1650	51.80	85470.00
7	M.S. Angel(75 X 40 mm)	Kg.	100	51.80	5180.00
8	M.S. Flats(50 X 10mm)	Kg.	80	48.50	3880.00
9	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
12	Earthing complete as per Sheet no.1	Set	1	240980.00	240980.00
13	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	1	3305209.00	3305209.00
14	22 KV P.T.	Nos	3	17855.00	53565.00
15	22 KV C.T. Three core.	Nos	3	24999.00	74997.00
16	22 KV VCB complete 1600 Amp (O.D.)	Set	1	179600.00	179600.00
17	C&R panel for 22 KV Transformer with 1 A relay	No	1	75834.00	75834.00
18	22 kv Pin Insulators with G.I. Pins	Nos	6	336.00	2016.00
19	Structure for 22 KV CT & PT as per Sheet no.2	No	1	48071.00	48071.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
21	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
B	11 KV SIDE				
22	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
23	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
24	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	1	256151.20	256151.20
25	11 kv Pin Insulators with G.I. Pins	No.	12	135.00	1620.00
26	Clamps and Connectors as per Sheet no.4	No.	1	183453.00	183453.00
27	Structure for 11 KV Main Bus as per Sheet no.5	No.	1	213971.20	213971.20
28	S/S Yard lighting as per Sheet no.6	No.	1	215879.00	215879.00
29	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
30	11/0.43 KV x 100 KVA station Transformer as per Sheet no.7	No.	1	195591.40	195591.40
31	Control cables for S/S as per Sheet no.8	No.	1	85383.45	85383.45
32	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

D Cost of material**6440936.25**

1	Transportation on material	4.00%	257637
2	T&P on material cost	1.00%	64409
3	Contigencies on material	2.50%	161023
5	Erection cost on material	5.00%	322047
6	Contractor supervision charges on material	5.00%	322047
7	Insurance , Labour & Finance Cost	3.00%	193228
	Service Cost		1320392
	Sub-Total		7761328
8	Turnkey Charges	5.00%	388066

Total**8149395**

9	Civil works	No.	1	7233264
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Total Cost of Estimate**15382659**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	10373772	8149395
Civil works	9219583	7233264
Total Cost of the Estimate	19593355	15382659

Sheet
No.1

Cost data for Earthing Work at 1x5 MVA at 22/11 KV sub stn. (outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 22 KV CT & PT at 1x5 MVA 22/11 KV Sub Stn.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x5 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm2	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	256151.20

Sheet
No. 4

Cost data for Clamps & Connectors at 1x5 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	183453.00

Sheet
No.5

Cost data for Structure of 11 KV Main Bus at 1x5MVA, 22/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm2	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Sheet
No.6

Cost data for Yard Lighting of 1 x5 MVA , 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt.	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt.	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
					215879.00

Sheet
No.7

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x5 MVA 22/11 KV sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	195591.40

Cost data for Control cable 1 X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
5	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	0
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7233264.494

Item Code No. 0402A

Cost data for 22/11 KV, 1x10 MVA Substation (Outdoor) with RSJ pole structure

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	2	11884.00	23768.00
2	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
3	22 KV Isolators without EB (800 Amp.)	Set	3	35680.00	107040.00
4	22 KV Post Insulator	Nos	3	835.00	2505.00
5	RSJ 125x70, 8 m long	Nos	8	4683.00	37464.00
6	MS Channel 100x50x6 mm	Kg.	1650	51.80	85470.00
7	M.S. Angel(75 X 40 mm)	Kg.	100	51.80	5180.00
8	M.S. Flats(50 X 10mm)	Kg.	80	48.50	3880.00
9	Disc Insulator 11 KV 70 KN	Nos	18	344.00	6192.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	6	603.00	3618.00
12	Earthing complete as per Sheet no.1	Set	1	240980.00	240980.00
13	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	1	4769649.00	4769649.00
14	22 KV P.T.	Nos	3	17855.00	53565.00
15	22 KV C.T. Three core.	Nos	3	24999.00	74997.00
16	22 KV VCB complete 1600 Amp (O.D.)	Set	1	179600.00	179600.00
17	C&R panel for 22 KV Transformer with Diff. Protection	No	1	113866.00	113866.00
18	22 kv Pin Insulators with G.I. Pins	Nos	6	336.00	2016.00
19	Structure for 22 KV CT & PT as per Sheet no.2	No	1	48071.00	48071.00
20	G.I.Nut Bolts	Kg	150	82.90	12435.00
21	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
B	11 KV SIDE				
22	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	1	852243.00	852243.00
23	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
24	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	1	327608.20	327608.20
25	11 kv Pin Insulators with G.I. Pins	No.	12	135.00	1620.00
26	Clamps and Connectors as per Sheet no.4	No.	1	188223.00	188223.00
27	Structure for 11 KV Main Bus as per Sheet no.5	No.	1	266852.20	266852.20
28	S/S Yard lighting as per Sheet no.6	No.	1	189411.00	189411.00
29	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
30	11/0.43 KV x 100 KVA station Transformer as per Sheet no.7	No.	1	195591.40	195591.40
31	Control cables for S/S as per Sheet no.8	No.	1	85383.45	85383.45
32	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

Cost of material			8046048.25
1	Transportation on material	4.00%	321842
2	T&P on material cost	1.00%	80460
3	Contigencies on material	2.50%	201151
5	Erection cost on material	5.00%	402302
6	Contractor supervision charges on material	5.00%	402302
7	Insurance , Labour & Finance Cost	3.00%	241381
	Service Cost		1649440
	Sub-Total		9695488
8	Turnkey Charges	5.00%	484774
	Total		10180263
9	Civil works	No.	1
	Total Cost of Estimate		17413527

Particulars		
	DPR Amount	Tender/ Estimate Amount
Cost with overheads on Material	12958965	10180263
Civil works	9219583	7233264
Total Cost of the Estimate	22178548	17413527

Sheet
No.1

Cost data for Earthing Work at 1x10 MVA at 22/11 KV sub stn. (outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 22 KV CT & PT at 1x10 MVA 22/11 KV Sub Stn.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x10 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm2	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	327608.20

Sheet
No. 4

Cost data for Clamps & Connectors at 1x10 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	30	718.00	21540.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	188223.00

Sheet
No.5

Cost data for Structure of 11 KV Main Bus at 1x10MVA, 22/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	266852.20

Sheet
No.6

Cost data for Yard Lighting of 1 x10 MVA , 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	12	6300.00	75600.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	12	4815.00	57780.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cmt	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	189411.00

Sheet
No.7

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x10 MVA 22/11 KV sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	195591.40

Cost data for Control cable 1 X10 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
5	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	0
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7233264.494

Cost data for 22/11 KV, 2x5 MVA Substation (Outdoor) with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
2	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
3	22 KV Isolators without EB (800 Amp.)	Set	5	35680.00	178400.00
4	22 KV Post Insulator	Nos	6	835.00	5010.00
5	RSJ 125x70, 8 m long	Nos	16	4683.00	74928.00
6	MS Channel 100x50x6 mm	Kg.	3300	51.80	170940.00
7	M.S. Angel(75 X 40 mm)	Kg.	200	51.80	10360.00
8	M.S. Flats(50 X 10mm)	Kg.	160	48.50	7760.00
9	Disc Insulator 11 KV 70 KN	Nos	72	344.00	24768.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
12	Earthing complete as per Sheet no.1	Set	2	240980.00	481960.00
13	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	2	3305209.00	6610418.00
14	22 KV P.T.	Nos	3	17855.00	53565.00
15	22 KV C.T. Three core.	Nos	6	24999.00	149994.00
16	22 KV VCB complete 1600 Amp (O.D.)	Set	2	179600.00	359200.00
17	C&R panel for 22 KV Transformer with 1 A relay	No	2	75834.00	151668.00
18	22 kv Pin Insulators with G.I. Pins	Nos	24	336.00	8064.00
19	Structure for 22 KV CT & PT as per Sheet no.2	No	2	48071.00	96142.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
21	Fire Extinguisher with stand	Set	L.S	4200.00	4000.00
22	Marshalling Box	Nos.	4	4284.00	17136.00
B	11 KV SIDE				
23	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
24	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
25	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	2	274659.20	549318.40
26	11 kv Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
27	Clamps and Connectors as per Sheet no.4	No.	1	251421.00	251421.00
28	Structure for 11 KV Main Bus as per Sheet no.5	No.	2	213971.20	427942.40
29	S/S Yard lighting as per Sheet no.6	No.	1	215879.00	215879.00
30	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
31	11/0.43 KV x 100 KVA station Transformer as per Sheet no.7	No.	1	195591.40	195591.40
32	Control cables for S/S as per Sheet no.8	No.	2	171605.90	343211.80
33	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

12370045.00

Cost of material				
1	Transportation on material	4.00%		494802
2	T&P on material cost	1.00%		123700
3	Contigencies on material	2.50%		309251
5	Erection cost on material	5.00%		618502
6	Contractor supervision charges on material	5.00%		618502
7	Insurance , Labour & Finance Cost	3.00%		371101
	Service Cost			2535859
	Sub-Total			14905904
8	Turnkey Charges	5.00%		745295
	Total			15651199
9	Civil works	No.	1	7849000
	Total Cost of Estimate			23500200

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	19923194	15651199
Civil works	10004405	7849000
Total Cost of the Estimate	29927600	23500200

Sheet
No.1

Cost data for Earthing Work at 2x5 MVA at 22/11 KV sub stn. (outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 22 KV CT & PT at 2x5 MVA 22/11 KV Sub Stn.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 2x5 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	274659.20

Sheet
No. 4

Cost data for Clamps & Connectors at 2x5 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	42	1020.00	42840.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 22 KV C.T.	Nos.	12	1425.00	17100.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	12	2040.00	24480.00
				Total:	251421.00

Sheet
No.5

Cost data for Structure of 11 KV Main Bus at 2x5MVA, 22/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 100 sq mm conductor	Nos.	12	733.00	8796.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	213971.20

Sheet
No.6

Cost data for Yard Lighting of 2x5 MVA , 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
					215879.00

Sheet
No.7

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x5 MVA 22/11 KV sub strn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	195591.40

Cost data for Control cable 2X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
5	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	0
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7849000.394

Cost data for 22/11 KV, 2x10 MVA Substation (Outdoor) with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
2	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
3	22 KV Isolators without EB (800 Amp.)	Set	7	35680.00	249760.00
4	22 KV Post Insulator	Nos	6	835.00	5010.00
5	RSJ 125x70, 8 m long	Nos	8	4683.00	37464.00
6	MS Channel 100x50x6 mm	Kg.	1650	51.80	85470.00
7	M.S. Angel(75 X 40 mm)	Kg.	100	51.80	5180.00
8	M.S. Flats(50 X 10mm)	Kg.	80	48.50	3880.00
9	Disc Insulator 11 KV 70 KN	Nos	36	344.00	12384.00
10	AAAC 232 mm ²	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
12	Earthing complete as per Sheet no.1	Set	2	240980.00	481960.00
13	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	2	4769649.00	9539298.00
14	22 KV P.T.	Nos	3	17855.00	53565.00
15	22 KV C.T. Three core.	Nos	6	24999.00	149994.00
16	22 KV VCB complete 1600 Amp (O.D.)	Set	2	179600.00	359200.00
17	C&R panel for 22 KV Transformer with Diff. Protection	No	2	113866.00	227732.00
18	22 kv Pin Insulators with G.I. Pins	Nos	12	336.00	4032.00
19	Structure for 22 KV CT & PT as per Sheet no.2	No	2	48071.00	96142.00
20	G.I.Nut Bolts	KG	150	82.90	12435.00
21	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
B	11 KV SIDE				
22	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
23	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	2	346116.20	692232.40
24	11 kv Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
25	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
26	Clamps and Connectors as per Sheet no.4	No.	1	256191.00	256191.00
27	Structure for 11 KV Main Bus as per Sheet no.5	No.	2	266852.20	533704.40
28	S/S Yard lighting as per Sheet no.6	No.	1	215879.00	215879.00
29	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
30	11/0.43 KV x 100 KVA station Transformer as per Sheet no.7	No.	1	199541.40	199541.40
31	Control cables for S/S as per Sheet no.8	No.	1	171605.90	171605.90
32	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

15366793.10

1	Transportation on material	4.00%	614672
2	T&P on material cost	1.00%	153668
3	Contigencies on material	2.50%	384170
5	Erection cost on material	5.00%	768340
6	Contractor supervision charges on material	5.00%	768340
7	Insurance , Labour & Finance Cost	3.00%	461004

Service Cost**3150193****Sub-Total****18516986**

8	Turnkey Charges	5.00%	925849
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Total**19442835**

9	Civil works	No.	1	7874091
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Total Cost of Estimate**27316926**

Particulars	Tender/ Estimate Amount	
	DPR Amount	
Cost with overheads on Material	24749757	19442835
Civil works	10036387	7874091
Total Cost of the Estimate	34786144	27316926

Sheet
No.1

Cost data for Earthing Work at 2x 10 MVA at 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 22 KV CT & PT at 2x 10 MVA, 22/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 2x5 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	346116.20

Sheet
No. 4

Cost data for Clamps & Connectors at 2x10 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	30	718.00	21540.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	42	1020.00	42840.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 22 KV C.T.	Nos.	12	1425.00	17100.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	12	2040.00	24480.00
				Total:	256191.00

Sheet
No.5

Cost data for Structure of 11 KV Main Bus at 2X10MVA, 22/11 KV Sub-station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	266852.20

Sheet
No.6

Cost data for Yard Lighting of 2X10 MVA, 22/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Sheet
No.7

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x10 MVA 22/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data Control cable 2 X10 MVA 22/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
5	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	25090.97
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7874091.364

Cost data for 22/11 KV,1x5 MVA & 1x10 MVA Outdoor Substation with RSJ pole structure

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
2	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
3	22 KV Isolators without EB (800 Amp.)	Set	5	35680.00	178400.00
4	22 KV Post Insulator	Nos	6	835.00	5010.00
5	RSJ 125x70, 8 m long	Nos	16	4683.00	74928.00
6	MS Channel 100x50x6 mm	Kg.	3300	51.80	170940.00
7	M.S. Angel(75 X 40 mm)	Kg.	200	51.80	10360.00
8	M.S. Flats(50 X 10mm)	Kg.	160	48.50	7760.00
9	Disc Insulator 11 KV 70 KN	Nos	72	344.00	24768.00
10	AAAC 232 mm2	MTR	200	127.40	25480.00
11	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
12	Earthing complete as per Sheet no.1	Set	2	240980.00	481960.00
13	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	1	3305209.00	3305209.00
14	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	1	4769649.00	4769649.00
15	22 KV P.T.	Nos	3	17855.00	53565.00
16	22 KV C.T. Three core.	Nos	6	24999.00	149994.00
17	22 KV VCB complete 1600 Amp (O.D.)	Set	2	179600.00	359200.00
18	C&R panel for 22 KV Transformer with Diff. Protection	No	1	113866.00	113866.00
19	C&R panel for 22 KV Transformer with 1 A relay	No	1	75834.00	75834.00
20	22 kv Pin Insulators with G.I. Pins	Nos	24	336.00	8064.00
21	Structure for 22 KV CT & PT as per Sheet no.2	No	2	48071.00	96142.00
22	G.I.Nut Bolts	KG	150	82.90	12435.00
23	Fire Extinguisher with stand	Set	L.S	4200.00	4200.00
24	Marshalling Box	Nos.	4	4284.00	17136.00
B	11 KV SIDE				
25	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
26	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
27	Take off structure for 3 outgoing feeder as per Sheet no.3	No.	2	332571.02	665142.04
28	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
29	Clamps and Connectors as per Sheet no.4	No.	1	188223.00	188223.00
30	Structure for 11 KV Main Bus as per Sheet no.5	No.	2	284739.02	569478.04
31	S/S Yard lighting as per Sheet no.6	No.	1	215879.00	215879.00
32	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
33	11/0.43 KV x 100 KVA station Transformer as per Sheet no.7	No.	1	195591.40	195591.40
34	Control cables for S/S as per Sheet no.8	No.	2	171605.90	343211.80
35	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

14066878.28**Cost of material**

1	Transportation on material	4.00%	562675
2	T&P on material cost	1.00%	140669
3	Contigencies on material	2.50%	351672
5	Erection cost on material	5.00%	703344
6	Contractor supervision charges on material	5.00%	703344
7	Insurance , Labour & Finance Cost	3.00%	422006

Service Cost**2883710****Sub-Total****16950588**

8	Turnkey Charges	5.00%	847529
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Total**17798118**

9	Civil works	No.	1	7874091
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Total Cost of Estimate**25672209**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	22656114	17798118
Civil works	10036387	7874091
Total Cost of the Estimate	32692501	25672209

Sheet
No.1

Cost data for Earthing Work at 22/11 KV for 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.2

Cost data of Structure for 22 KV CT & PT at 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 3

Cost data for Take off structure for 11 KV Feeders 3 outlets at 22/11 KV ,1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm2	Rmt.	150	127.40	19110.00
12	AAAC 100 mm2	Rmt.	151	51.82	7824.82
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	G.I.Nut Bolts	Kg.	50	82.90	4145.00
15	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
16	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
17	Miscellaneous material	LS	1	475.00	475.00
				Total:	332571.02

Sheet
No. 4

Cost data for Clamps & Connectors at 22/11 kv 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	30	718.00	21540.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	188223.00

Sheet
No.5

Cost data for Structure of 11 KV Main Bus at 22/11 KV 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for AAAC232 sq.mm.	Nos.	36	603.00	21708.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
11	AAAC 100 mm ²	Rmt.	151	51.82	7824.82
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	12	3352.00	40224.00
b)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
17	Miscellaneous material	LS	1	475.00	475.00
				Total:	284739.02

Sheet
No.6

Cost data for Yard Lighting of 22/11 KV 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
					215879.00

Sheet
No. 7

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 22/11 KV 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	195591.40

Cost data for Control cable 22/11 KV 1x5 MVA & 1x10 MVA Outdoor Sub stn.

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
5	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (1+3 Bay) + Stn Trans. (As table G) Outdoor	700720
10	Equipment Foundations for additional 1X 5 MVA or 1X10 MVA (1+3 Bay) (As table G1) Outdoor	615735.9
11	10 MVA Power Transformer Plinth Foundation (as per table G2)	0
12	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Outdoor	25090.97
13	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
14	Borewell including pumpset and allied accessories. (As per table I)	101071
15	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
16	Construction of retaining wall. (As per table K)	731271.97
17	Rain Water Harvesting (As per Table L)	56519.24
18	Culvert (As per Table M)	138225
	Total=	7874091.364

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 kV Switchgear part				
1	Power Transformer 22/11 KV, 10 MVA (DY-11)	No.	1	4769649.00	4769649.00
2	C&R panel for 22 KV Transformer with Diff. Protection	No.	1	113866.00	113866.00
3	22 kV 1000 MVA 1600 Amp.IN Door Type VCB	No.	1	985167.00	985167.00
4	XLPE Cable 22 KV, 3 C / 300 mm sq.	Mtr.	100	1464.00	146400.00
5	22 kV Heat shrink Indoor termination joint (Al) kit for XLPE 3 C X 300 sqmm	No.	4	12874.00	51496.00
6	22 kV SF6 Isolator	No.	2	409598.00	819196.00
7	Foundation for 22 kV Isolators	Cmt.	5.2	3027.00	15740.40
8	RSJ 152x152, 13 m long	No.	2	21562.00	43124.00
9	Concreting ration 1:3:6	Cmt.	2.02	3027.00	6114.54
10	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
11	Marshalling Box	No.	2	4284.00	8568.00
12	0.2 ACSR or equivalent AAAC Loop Connector	No.	12	820.00	9840.00
13	Clamps for 22 KV Isolator	No.	12	1020.00	12240.00
14	Transformer Clamps	No.	6	721.00	4326.00
15	AAAC 232 mm2	Mtr.	50	127.40	6370.00
16	Sundries	L.S.	1	810.00	810.00
B	11 kV Switchgear part				
17	11kV I D switchgear (1 I/c+1 B/c+4O/G)	Set	1	1703020.00	1703020.00
18	XLPE Cable 11 KV, 3 C / 300 mm sq.	Mtr.	1000	1194.00	1194000.00
19	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	24	1662.00	39888.00
20	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
21	Control cables for S/S as per Sheet no.1	No.	1	237889.00	237889.00
22	Earthing complete as per Sheet no.2	Set	1	54433.50	54433.50
23	Sundries	L.S.	1	810.00	810.00

Cost of material**10303515.44**

1	Transportation on material	4.00%	412141
2	T&P on material cost	1.00%	103035
3	Contingencies on material	2.50%	257588
5	Erection cost on material	5.00%	515176
6	Contractor supervision charges on material	5.00%	515176
7	Insurance , Labour & Finance Cost	3.00%	309105

Service Cost**Sub-Total****2112221****12415736**

8	Turnkey Charges	5.00%	620787
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Total**13036523**

9	Civil Works for plinth and other foundation works	L.S.	5202820
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Total Cost of Estimate**18239343**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	16594842	13036523
Civil works	6631561	5202820
Total Cost of the Estimate	23226403	18239343

Cost data for Control cable 22/11 KV 1x10 MVA Indoor Sub stn.

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	Armoured Copper control cable 19C X 2.5 Sq mm	Mtr.	200	331.39	66278.00
2	Armoured Copper control cable 12C X 2.5 Sq mm	Mtr.	200	216.24	43248.00
3	Armoured Copper control cable 4C X 2.5 Sq mm	Mtr.	200	87.60	17520.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Mtr.	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	100	78.00	7800.00
6	Cable Trays 2.5 Mtr. X 6" W	No.	100	333.00	33300.00
7	G.I Angles (50X50X6mm) forcable tray	Kg.	400	70.08	28032.00
8	Sand	Cmt.	150	222.00	33300.00
9	Sundries e.g. Ferulls, Glands, Lugs etc.	L.S.	1	2900.00	2900.00
				Total	237889.00

Cost data for Earthing Work at 22/11 KV for 1X10 MVA Indoor Sub stn.

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	Earthing HDG Flat 75 X 10 mm	kg.	150	66.78	10017.00
2	Earthing HDG Flat 50 X 6 mm	kg.	75	66.78	5008.50
3	C.I. Plates 2' X 2'	No.	4	247.00	988.00
4	C.I. Pipes 4" dia 3 Metre Long	No.	4	7230.00	28920.00
5	Salt	kg.	300	7.00	2100.00
6	Coal	kg.	300	15.00	4500.00
7	Sundries e.g. Ferulls, Glands, Lugs etc.	L.S.	1	2900.00	2900.00
				Total	54433.50

Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) Indoor	150490
2	Control room (As per table B) Indoor	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) Indoor	0
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D) Indoor	230185
7	Chain link fencing and Bar bed wire fencing (As per table E) Indoor	537350.16
8	Metal Spreading (As per table F) Indoor	96212
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) Indoor	52836
13	Borewell including pumpset and allied accessories. (As per table I) Indoor	101071
14	Const.of cable trench with covers in S/Yard. (As per table J) Indoor	173239.75
15	Construction of retaining wall. (As per table K) Indoor	549876.5
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225
		5202820.06

Cost data for 22/11 KV, 2x5 MVA Substation, 22 kV O/D, 11 kV I/D

Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	22 KV SIDE				
1	22 KV Lightning Arrestors (Station type)	Set	3	11884.00	35652.00
2	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
3	22 KV Isolators without EB (800 Amp.)	Set	4	35680.00	142720.00
4	22 KV Post Insulator	Nos	6	835.00	5010.00
5	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	2	182311.50	364623.00
6	Disc Insulator 11 KV 70 KN	Nos	72	344.00	24768.00
7	AAAC 232 mm2	MTR	200	127.40	25480.00
8	Strain Hardware for AAAC232 sq.mm.	Nos	12	603.00	7236.00
9	Earthing complete as per Sheet no.2	Set	2	240980.00	481960.00
10	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	2	3305209.00	6610418.00
11	22 KV P.T.	Nos	3	17855.00	53565.00
12	22 KV C.T. Three core.	Nos	6	24999.00	149994.00
13	22 KV VCB complete 1600 Amp (O.D.)	Set	3	179600.00	538800.00
14	C&R panel for 22 KV Transformer with 1 A relay	No	2	75834.00	151668.00
15	C&R panel for 22 KV feeder breaker	No	1	49844.00	49844.00
16	22 kV Pin Insulators with G.I. Pins	Nos	24	336.00	8064.00
17	Structure for 22 KV CT & PT as per Sheet no.3	No	2	48071.00	96142.00
18	G.I.Nut Bolts	KG	150	82.90	12435.00
19	Marshalling Box	Nos.	4	4284.00	17136.00
B	11 KV SIDE				
20	11kV I D switchgear (2 I/c+1 B/c+8O/G)	Set	1	3117222.00	3117222.00
21	XLPE Cable 11 KV, 3 C / 300 mm sq.	MTR	1600	1194.00	1910400.00
22	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
23	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	20	1662.00	33240.00
24	Clamps and Connectors as per Sheet no.4	No.	1	88113.00	88113.00
25	S/S Yard lighting as per Sheet no.5	No.	1	215879.00	215879.00
26	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
27	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	No.	1	201532.40	201532.40
28	Control cables for S/S as per Sheet no.7	No.	1	171605.90	171605.90
29	AC Distribution Board 'B' type	No.	1	24325.00	24325.00

Cost of material**14764149.30**

1	Transportation on material	4.00%	590566
2	T&P on material cost	1.00%	147641
3	Contingencies on material	2.50%	369104
5	Erection cost on material	5.00%	738207
6	Contractor supervision charges on material	5.00%	738207
7	Insurance , Labour & Finance Cost	3.00%	442924

Service Cost**Sub-Total**

8	Turnkey Charges	5.00%	889540
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Total**18680340**

9	Civil Works for plinth and other foundation works	L.S.	5314200
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Total Cost of Estimate**23994540**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	23779139	18680340
Civil works	6773527	5314200
Total Cost of the Estimate	30552666	23994540

Sheet
No.1

Cost data for 22 KV Gantry M.S.structure/steel section for 2x5 MVA Sub stn. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.783	48500.00	37975.50
				Total:	182311.50

Sheet
No.2

Cost data for Earthing Work at 2x5 MVA at 22/11 KV sub stn. (outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	0	266.00	0.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	240980.00

Sheet
No.3

Cost data of Structure for 22 KV CT & PT at 2x5 MVA 22/11 KV Sub Stn.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No. 4

Cost data for Clamps & Connectors at 2x5 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 100 sq mm conductor	Nos.	30	733.00	21990.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	88113.00

Sheet
No.5

Cost data for Yard Lighting of 2x5 MVA , 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Sheet
No. 6

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x5 MVA 22/11 KV sub stn.

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	201532.40

Sheet
No - 7

Cost data for Control cable 2X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
5	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) Hybrid	150490
2	Control room (As per table B) Hybrid	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) Hybrid	0
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D) Hybrid	230185
7	Chain link fencing and Bar bed wire fencing (As per table E) Hybrid	537350.16
8	Metal Spreading (As per table F) Hybrid	96212
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.2
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	25090.97
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) Hybrid	52836
13	Borewell including pumpset and allied accessories. (As per table I) Hybrid	101071
14	Const.of cable trench with covers in S/Yard. (As per table J) Hybrid	173239.75
15	Construction of retaining wall. (As per table K) Hybrid	549876.5
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225
	Total=	5314200.23

Item Code No. 0501

Cost data for 22 Kv Switching Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	22 KV feeder bay as per sheet "A"	Nos.	12	756615.60	9079387.20
2	22 KV Isolators without EB (800 Amp.)	Set	3	35680.00	107040.00
3	22 KV P.T.	No.	3	17855.00	53565.00
4	100 KVA, 22/0.4 KV with Dist. Box as per Sht.No.6.	Set	1	276835.40	276835.40
5	Battery set 30 Volt, 100 AH with Battery charger	Set	1	72000.00	72000.00
6	Bus Gantry and Fabrication material , Clamps,Connectors, Control Cables, and Earthing (As per Sht. No.1,2,3,5,7 &8.	L.S.	1	407270.30	407270.30
7	AC Distribution Board 'B' type	Nos.	1	24325.00	24325.00
8	Fire Extinguisher with stand	LS	1	4200.00	4200.00
9	Switchyard lighting(As per Sht.no.4)	Nos.	1	153263.50	153263.50

Cost of material

10177886.40

1	Transportation on material	4.00%	407115
2	T&P on material cost	1.00%	101779
3	Contigencies on material	2.50%	254447
5	Erection cost on material	5.00%	508894
6	Contractor supervision charges on material	5.00%	508894
7	Insurance , Labour & Finance Cost	3.00%	305337
Service Cost			2086467
Sub-Total			12264353
8	Turnkey Charges	5.00%	613218

Total

12877571

9	Civil works	No.	1	6974850
Total Cost of Estimate				19852421

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	16392504	12877571
Civil works	8890206	6974850
Total Cost of the Estimate	25282710	19852421

--
Sheet A

22 KV FEEDER BAY

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
2	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
3	22 KV Isolators without EB (800 Amp.)	Set	1	35680.00	35680.00
4	22 KV VCB complete 1600 Amp (O.D.)	Set	1	179600.00	179600.00
5	CT 200-100/1-1 A , 22 KV	Nos.	3	23767.00	71301.00
6	Control C&R Panel 22 KV for feeder with accessories.	Nos.	1	75834.00	75834.00
7	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L.S.	1	330027.60	330027.60
8	Earthing as per Sheet (E)	L.S.	1	14058.00	14058.00

Cost of material

756615.60

22 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A)	STRUCTURE				
1	Structure for 22 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 22 KV CT	Kg.	315	51.80	16317.00
3	G.I. Gantry Structures	Kg.	1000	70.08	70080.00
4	G.I.Nut Bolts	Kg.	100	82.90	8290.00
5	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	125137.00
B)	FOUNDATION(Civil works)				
1	Foundation for 22 KV Isolators	Cmt.	1.3	3027.00	3935.10
2	Foundation for 22 KV Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 22 KV Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
4	Foundation for 22 KV C.Ts	Cmt.	1.3	3027.00	3935.10
5	Foundation for 22 KV Breaker	Cmt.	1.3	3027.00	3935.10
6	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	27545.70
C)	BUS-BAR MATERIAL				
1	AAAC 232 mm2	Mtrs.	25	127.40	3185.00
2	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	12	845.00	10140.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	12	344.00	4128.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
				Sub Total:	138839.00
D)	CONTROL CABLE				
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands, rerules and tape etc.	L.S.	-	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E)	EARTHING WORK				
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F)	PAINTING OF STRUCTURE				
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Sheet
No.1

Cost data for 22 KV Gantry M.S.structure/Steel Section for 22 KV Switching station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.783	48500.00	37975.50
				Total:	182311.50

Sheet
No.2

Cost data for Earthing Work at 22 KV switching station.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	140	48.50	6790.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	2	6300.00	12600.00
3	Coal	Kg.	200	15.00	3000.00
4	Salt	Kg.	200	7.00	1400.00
5	RCC Ring work for earthing pits	No.	2	266.00	532.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	25132.00

Sheet
No.3

Cost data of Structure for 22 KV , PT H/G fuse set at 22 KV SW/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV H/G.	Kg.	155	51.80	8029.00
3	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	26833.00

Sheet
No.4

Cost data for Yard Lighting at 22 KV switching station (Outdoor).

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	10	6300.00	63000.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	10	4815.00	48150.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	175	78.00	13650.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	75	77.00	5775.00
5	Concreting ration 1:3:6	Cmt	5.5	3027.00	16648.50
6	Red Bricks	No.	850	5.50	4675.00
7	Sand	Cum	2.5	222.00	555.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	153263.50

Sheet
No. 5

Cost data for Clamps & Connectors bus connection at 22 KV SW/S. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
b)	DOG TO DOG or equivalent AAAC			559.00	0.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
				Total:	123195.00

Cost data for 100 KVA, 22/0.43 KV Station T/F for 22KV Switching stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Dist.transformer 100kva,22/0.4kv	No.	1	202380.00	202380.00
2	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
3	22KV A.B.Switch, 400 A	Nos.	1	14447.00	14447.00
4	L.A.s 22KV (Gapless type) with disconnecter	Set	1	2280.00	2280.00
5	22 kV Pin Insulators with G.I. Pins	No.s	3	336.00	1008.00
6	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
7	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
8	Earthing Sets H.T	Nos.	3	342.00	1026.00
9	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
10	Coal	Kg.	200	15.00	3000.00
11	Salt	Kg.	200	7.00	1400.00
12	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
13	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
14	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	276835.40

Cost data for Control cable for 22KV Switching Stn.(Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	5	333.00	1665.00
3	G.I Angles (50X50X6mm) forcable tray	Kg.	10	70.08	700.80
4	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	8351.80

Materials for 22 KV bus section at Switching Stn.(Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	AAAC 232 mm2	Rmt	200	127.40	25480.00
2	Disc Insulator 11 KV 70 KN	Nos.	24	344.00	8256.00
3	Strain Hardware for AAAC232 sq.mm.	Nos.	12	603.00	7236.00
4	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	41447.00

Cost data for Civil works for 22 KV Switching station (Outdoor)

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Foundations for structures and equipments for switching station	442305.7215
10	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
11	Borewell including pumpset and allied accessories. (As per table I)	101071
12	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
13	Construction of retaining wall. (As per table K)	731271.97
14	Rain Water Harvesting (As per Table L) Indoor	56519.24
15	Culvert (As per Table M) Indoor	138225
	Total=	6974850.215

Item Code No. 0502

Cost data for 11 Kv Switching Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	11 KV feeder bay as per sheet "A"	Nos.	12	499920.10	5999041.20
2	11 KV Isolators without EB (800 Amp.)	Set	3	26630.00	79890.00
3	11 KV PT	Set	1	8965.00	8965.00
4	100 KVA, 11/0.4 KV with Dist. Box as per Sht.No.6.	Set	1	180403.40	180403.40
5	Battery set 30 Volt, 100 AH with Battery charger	Set	1	72000.00	72000.00
6	Bus Gantry and Fabrication material , Clamps,Connectors, Control Cables, and Earthing (As per Sht. No.1,2,3,5,7 &8.	L.S.	1	312659.30	312659.30
7	AC Distribution Board 'B' type	Nos.	1	24325.00	24325.00
8	Fire Extinguisher with stand	LS	1	4200.00	4200.00
9	Switchyard lighting(As per Sht.no.4)	Nos.	1	153263.50	153263.50

Cost of material

6834747.40

1	Transportation on material	4.00%	273390
2	T&P on material cost	1.00%	68347
3	Contigencies on material	2.50%	170869
5	Erection cost on material	5.00%	341737
6	Contractor supervision charges on material	5.00%	341737
7	Insurance , Labour & Finance Cost	3.00%	205042

Service Cost

1401123

Sub-Total

8235871

8	Turnkey Charges	5.00%	411794
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Total

8647664

9	Civil work as per sheet No.9		6974850
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Total Cost of Estimate

15622514

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	11008044	8647664
Civil works	8890206	6974850
Total Cost of the Estimate	19898250	15622514

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**Sheet
No. A**

11 KV FEEDER BAY

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
2	11 KV Isolators with EB (800 A)	Set	1	30025.00	30025.00
3	11 KV Isolators without EB (800 Amp.)	Set	1	26630.00	26630.00
4	11 KV VCB 400 A Outdoor	Set	1	103600.00	103600.00
5	11 KV CT 400 - 200 / 5 - 5 Outdoor	Nos.	3	10611.00	31833.00
6	C&R Panel for 11 kV Outgoing Feeder OD	Nos.	1	49844.00	49844.00
7	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L.S.	1	242662.10	242662.10
8	Earthing as per Sheet (E)	L.S.	1	14058.00	14058.00

Cost of material

499920.10

11 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A)	STRUCTURE				
1	Structure for 11 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 11 KV CT	Kg.	315	51.80	16317.00
3	G.I. Gantry Structures	Kg.	1000	70.08	70080.00
4	G.I.Nut Bolts	Kg.	100	82.90	8290.00
5	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	125137.00
B)	FOUNDATION(Civil works)				
1	Foundation for 11 kV Isolators	Cmt.	1.3	3027.00	3935.10
2	Foundation for 11 kV Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 11 kV Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
4	Foundation for 11 kV C.Ts	Cmt.	1.3	3027.00	3935.10
5	Foundation for 11 kV Breaker	Cmt.	1.3	3027.00	3935.10
6	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	27545.70
C)	BUS-BAR MATERIAL				
1	AAAC 100 mm ²	Mtrs.	25	51.82	1295.50
2	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	12	845.00	10140.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	12	344.00	4128.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	6	322.00	1932.00
				Sub Total:	51473.50
D)	CONTROL CABLE				
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands, rerules and tape etc.	L.S.	-	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E)	EARTHING WORK				
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F)	PAINTING OF STRUCTURE				
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Sheet
No.1

Cost data for 11 KV Gantry M.S.structure/Steel Section for 11 KV Switching station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(4 Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(2 Nos.)-261.0 Kg.	MT	0.783	48500.00	37975.50
				Total:	182311.50

Sheet
No.2

Cost data for Earthing Work at 11 KV switching station.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	140	48.50	6790.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	2	6300.00	12600.00
3	Coal	Kg.	200	15.00	3000.00
4	Salt	Kg.	200	7.00	1400.00
5	RCC Ring work for earthing pits	No.	2	266.00	532.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	25132.00

Sheet
No.3

Cost data of Structure for 11 KV CT, PT H/G fuse set at 11 KV SW/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 11 KV PT	Kg.	315	51.80	16317.00
2	Structure for 11 KV H/G.	Kg.	155	51.80	8029.00
3	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	26833.00

Sheet
No.4

Cost data for Yard Lighting at 11 KV switching station (Outdoor).

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp & 250w SV Lamp	No.	10	6300.00	63000.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	10	4815.00	48150.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	175	78.00	13650.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	75	77.00	5775.00
5	Concreting ration 1:3:6	Cmt	5.5	3027.00	16648.50
6	Red Bricks	No.	850	5.50	4675.00
7	Sand	Cum	2.5	222.00	555.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	153263.50

Sheet
No. 5

Cost data for Clamps & Connectors bus connection at 11 KV SW/S. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
2	clamps for Isolator	Nos.	18	845.00	15210.00
3	Clamp for PT	Nos.	3	1450.00	4350.00
				Total:	36330.00

Cost data for 100 KVA, 11/0.43 KV Station T/F for 11 KV Switching stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
2	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
3	11KV A.B. Switch, 400 A	Nos.	1	9240.00	9240.00
4	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
5	11 kv Pin Insulators with G.I. Pins	No.s	3	135.00	405.00
6	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
7	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
8	Earthing Sets H.T	Nos.	3	342.00	1026.00
9	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
10	Coal	Kg.	200	15.00	3000.00
11	Salt	Kg.	200	7.00	1400.00
12	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
13	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
14	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
		Total:			180403.40

Cost data for Control cable for 11 KV Switching Stn.(Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	5	333.00	1665.00
3	G.I Angles (50X50X6mm) forcable tray	Kg.	10	70.08	700.80
4	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	8351.80

Materials for 11 KV bus section at Switching Stn.(Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	AAAC 232 mm2	Rmt	200	127.40	25480.00
2	Disc Insulator 11 KV 70 KN	Nos.	12	344.00	4128.00
3	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
4	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	33701.00

Cost data for Civil works for 11 KV Switching station (Outdoor)

Sr.No.	Particular	Amount
1	Land Development (As per table A)	242640
2	Control room (As per table B) outdoor	2087239
3	Store room of size 8.0m X 6.0 m (As per table C)	674742.2
4	Sanitary Water supply	0
5	Electrification (Lumsum)	100000
6	WBM Road (As per table D)	408296
7	Chain link fencing and Bar bed wire fencing (As per table E)	1495764.28
8	Metal Spreading (As per table F)	141360
9	Foundations for structures and equipments for switching station	442305.7215
10	Water Supply arrangement for C/Room and Switch Yard.(As per table H)	58091
11	Borewell including pumpset and allied accessories. (As per table I)	101071
12	Const.of cable trench with covers in S/Yard. (As per table J)	297324.804
13	Construction of retaining wall. (As per table K)	731271.97
14	Rain Water Harvesting (As per Table L) Indoor	56519.24
15	Culvert (As per Table M) Indoor	138225
	Total=	6974850.215

Item Code No. 0601

Cost data for 33 KV FEEDER BAY (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	33 KV Lightning Arrestors (Station type)	Set	1	13571.00	13571.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	1	50510.00	50510.00
4	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
5	CT 200-100/1-1 A , 33 KV	Nos.	3	23353.00	70059.00
6	C&R panel for 33 KV for feeder breaker	Nos.	1	51178.00	51178.00
7	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L.S.	1	337161.60	337161.60
8	Marshalling Box	No	1	4284.00	4284.00
9	Earthing as per Sheet (E)	L.S.	1	14058.00	14058.00

Cost of material

800206.60

1	Transportation on material	4.00%	32008
2	T&P on material cost	1.00%	8002
3	Contigencies on material	2.50%	20005
5	Erection cost on material	5.00%	40010
6	Contractor supervision charges on material	5.00%	40010
7	Insurance , Labour & Finance Cost	3.00%	24006

Service Cost

164042

Sub-Total

964249

8	Turnkey Charges	5.00%	48212
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Total

1012461

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1288813	1012461
Total Cost of the Estimate	1288813	1012461

33 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A) STRUCTURE					
1	Structure for 33 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 33 KV CT	Kg.	315	51.80	16317.00
3	G.I. Gantry Structures	Kg.	1000	70.08	70080.00
4	G.I.Nut Bolts	Kg.	100	82.90	8290.00
5	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	125137.00
B) FOUNDATION(Civil works)					
1	Foundation for 33 kV Isolators with EB	Cmt.	1.3	3027.00	3935.10
2	Foundation for 33 kV Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 33 kV C.Ts	Cmt.	1.3	3027.00	3935.10
4	Foundation for 33 kV Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
5	Foundation for 33 kV Breaker	Cmt.	1.3	3027.00	3935.10
6	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	27545.70
C) BUS-BAR MATERIAL					
1	AAAC 232 mm ²	Mtrs.	25	127.40	3185.00
2	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	18	845.00	15210.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	18	344.00	6192.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
				Sub Total:	145973.00
D) CONTROL CABLE					
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands, rerules and tape etc.	L.S.	L.S.	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E) EARTHING WORK					
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F) PAINTING OF STRUCTURE					
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Item Code No. 0602

22 KV FEEDER BAY

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
2	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
3	22 KV Isolators without EB (800 Amp.)	Set	1	35680.00	35680.00
4	22 KV VCB complete 1600 Amp (O.D.)	Set	1	179600.00	179600.00
5	CT 200-100/1-1 A , 22 KV	Nos.	3	23767.00	71301.00
6	Control C&R Panel 22 KV for feeder with accessories.	Nos.	1	75834.00	75834.00
7	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L.S.	1	330027.60	330027.60
8	Marshalling Box	No	1	4284.00	4284.00
9	Earthing as per Sheet (E)	L.S.	1	14058.00	14058.00

Cost of material **760899.60**

1	Transportation on material	4.00%	30436
2	T&P on material cost	1.00%	7609
3	Contigencies on material	2.50%	19022
5	Erection cost on material	5.00%	38045
6	Contractor supervision charges on material	5.00%	38045
7	Insurance , Labour & Finance Cost	3.00%	22827

Service Cost **155984**

Sub-Total **916884**

8	Turnkey Charges	5.00%	45844
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Total **962728**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1225505	962728
Total Cost of the Estimate	1225505	962728

22 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A)	STRUCTURE				
1	Structure for 22 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 22 KV CT	Kg.	315	51.80	16317.00
3	G.I. Gantry Structures	Kg.	1000	70.08	70080.00
4	G.I.Nut Bolts	Kg.	100	82.90	8290.00
5	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	125137.00
B)	FOUNDATION(Civil works)				
1	Foundation for 22 kV Isolators	Cmt.	1.3	3027.00	3935.10
2	Foundation for 22 kV Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 22 kV Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
4	Foundation for 22 kV C.Ts	Cmt.	1.3	3027.00	3935.10
5	Foundation for 22 kV Breaker	Cmt.	1.3	3027.00	3935.10
6	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	27545.70
C)	BUS-BAR MATERIAL				
1	AAAC 232 mm ²	Mtrs.	25	127.40	3185.00
2	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Noa	30	3352.00	100560.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	12	845.00	10140.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	12	344.00	4128.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
				Sub Total:	138839.00
D)	CONTROL CABLE				
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands, rerules and tape etc.	L.S.	-	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E)	EARTHING WORK				
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F)	PAINTING OF STRUCTURE				
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

11 KV FEEDER BAY

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
2	11 KV Isolators with EB (800 A)	Set	1	30025.00	30025.00
3	11 KV Isolators without EB (800 Amp.)	Set	1	26630.00	26630.00
4	11 KV VCB 400 A Outdoor	Set	1	103600.00	103600.00
5	11 KV CT 400 - 200 / 5 - 5 Outdoor	Nos.	3	10611.00	31833.00
6	C&R Panel for 11 kV Outgoing Feeder OD	Nos.	1	49844.00	49844.00
7	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L.S.	1	330027.60	330027.60
8	Marshalling Box	No	1	4284.00	4284.00
9	Earthing as per Sheet (E)	L.S.	1	14058.00	14058.00

Cost of material**591569.60**

1	Transportation on material	4.00%	23663
2	T&P on material cost	1.00%	5916
3	Contigencies on material	2.50%	14789
5	Erection cost on material	5.00%	29578
6	Contractor supervision charges on material	5.00%	29578
7	Insurance , Labour & Finance Cost	3.00%	17747

Service Cost**121272****Sub-Total****712841**

8	Turnkey Charges	5.00%	35642
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Total**748483**

Particulars	DPR Amount	Tender/ Estimate Amount(Rural)
	61.06%	26.525%
Cost with overheads on Material	952782	748483
Total Cost of the Estimate	952782	748483

11 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A)	STRUCTURE				
1	Structure for 11 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 11 KV CT	Kg.	315	51.80	16317.00
3	G.I. Gantry Structures	Kg.	1000	70.08	70080.00
4	G.I.Nut Bolts	Kg.	100	82.90	8290.00
5	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	125137.00
B)	FOUNDATION(Civil works)				
1	Foundation for 11 kV Isolators	Cmt.	1.3	3027.00	3935.10
2	Foundation for 11 kV Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 11 kV Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
4	Foundation for 11 kV C.Ts	Cmt.	1.3	3027.00	3935.10
5	Foundation for 11 kV Breaker	Cmt.	1.3	3027.00	3935.10
6	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	27545.70
C)	BUS-BAR MATERIAL				
1	AAAC 232 mm ²	Mtrs.	25	127.40	3185.00
2	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	12	845.00	10140.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	12	344.00	4128.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
				Sub Total:	138839.00
D)	CONTROL CABLE				
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands, rerules and tape etc.	L.S.	-	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E)	EARTHING WORK				
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F)	PAINTING OF STRUCTURE				
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Item Code No. 0601A

Cost data for 33 KV FEEDER BAY (Outdoor) without Gantry structure

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	33 KV Lightning Arrestors (Station type)	Set	1	13571.00	13571.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	1	50510.00	50510.00
4	33 KV VCB complete 1600 Amp (O.D.)	Set	1	204195.00	204195.00
5	CT 200-100/1-1 A , 33 KV	Nos.	3	23353.00	70059.00
6	C&R panel for 33 KV for feeder breaker	Nos.	1	51178.00	51178.00
7	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L.S.	1	262011.60	262011.60
8	Marshalling Box	No	1	4284.00	4284.00
9	Earthing as per Sheet (E)	L.S.	1	14058.00	14058.00

Cost of material

725056.60

1	Transportation on material	4.00%	29002
2	T&P on material cost	1.00%	7251
3	Contigencies on material	2.50%	18126
5	Erection cost on material	5.00%	36253
6	Contractor supervision charges on material	5.00%	36253
7	Insurance , Labour & Finance Cost	3.00%	21752

Service Cost

148637

Sub-Total

873693

8	Turnkey Charges	5.00%	43685
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Total

917378

Particulars	More than Rs. 40 Crs	
	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1167776	917378
Total Cost of the Estimate	1167776	917378

33 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A)	STRUCTURE				
1	Structure for 33 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 33 KV CT	Kg.	315	51.80	16317.00
3	G.I.Nut Bolts	Kg.	100	82.90	8290.00
4	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	55057.00
B)	FOUNDATION(Civil works)				
1	Foundation for 33 kV Isolators with EB	Cmt.	1.3	3027.00	3935.10
2	Foundation for 33 kV Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 33 kV C.Ts	Cmt.	1.3	3027.00	3935.10
4	Foundation for 33 kV Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
5	Foundation for 33 kV Breaker	Cmt.	1.3	3027.00	3935.10
6	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	27545.70
C)	BUS-BAR MATERIAL				
1	AAAC 232 mm ²	Mtrs.	25	127.40	3185.00
2	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	12	845.00	10140.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	18	344.00	6192.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
				Sub Total:	140903.00
D)	CONTROL CABLE				
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands, rerules and tape etc.	L.S.	L.S.	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E)	EARTHING WORK				
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F)	PAINTING OF STRUCTURE				
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Item Code No. 0602A

Cost data for 22 KV FEEDER BAY (Outdoor) without Gantry structure

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
2	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
3	22 KV Isolators without EB (800 Amp.)	Set	1	35680.00	35680.00
4	22 KV VCB complete 1600 Amp (O.D.)	Set	1	179600.00	179600.00
5	CT 200-100/1-1 A , 22 KV	Nos.	3	23767.00	71301.00
6	Control C&R Panel 22 KV for feeder with accessories.	Nos.	1	75834.00	75834.00
7	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L. S.	1	259947.60	259947.60
8	Marshalling Box	No	1	4284.00	4284.00
9	Earthing as per Sheet (E)	L.S.	1	14058.00	14058.00

Cost of material

690819.60

1	Transportation on material	4.00%	27633
2	T&P on material cost	1.00%	6908
3	Contigencies on material	2.50%	17270
5	Erection cost on material	5.00%	34541
6	Contractor supervision charges on material	5.00%	34541
7	Insurance , Labour & Finance Cost	3.00%	20725

Service Cost

141618

Sub-Total

832438

8	Turnkey Charges	5.00%	41622
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Total

874059

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1112634	874059
Total Cost of the Estimate	1112634	874059

22 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A)	STRUCTURE				
1	Structure for 22 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 22 KV CT	Kg.	315	51.80	16317.00
3	G.I.Nut Bolts	Kg.	100	82.90	8290.00
4	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	55057.00
B)	FOUNDATION(Civil works)				
1	Foundation for 22 kV Isolators	Cmt.	1.3	3027.00	3935.10
2	Foundation for 22 kV Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 22 kV Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
4	Foundation for 22 kV C.Ts	Cmt.	1.3	3027.00	3935.10
5	Foundation for 22 kV Breaker	Cmt.	1.3	3027.00	3935.10
6	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	27545.70
C)	BUS-BAR MATERIAL				
1	AAAC 232 mm ²	Mtrs.	25	127.40	3185.00
2	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Noa	30	3352.00	100560.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	12	845.00	10140.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	12	344.00	4128.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
				Sub Total:	138839.00
D)	CONTROL CABLE				
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands, rerules and tape etc.	L.S.	-	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E)	EARTHING WORK				
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F)	PAINTING OF STRUCTURE				
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Item Code 0603A

Cost data for 11 KV FEEDER BAY (Outdoor) without Gantry structure

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
2	11 KV Isolators with EB (800 A)	Set	1	30025.00	30025.00
3	11 KV Isolators without EB (800 Amp.)	Set	1	26630.00	26630.00
4	11 KV VCB 400 A Outdoor	Set	1	103600.00	103600.00
5	11 KV CT 400 - 200 / 5 - 5 Outdoor	Nos.	3	10611.00	31833.00
6	C&R Panel for 11 kV Outgoing Feeder OD	Nos.	1	49844.00	49844.00
7	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L. S.	1	259947.60	259947.60
8	Marshalling Box	No	1	4284.00	4284.00
9	Earthing as per Sheet (E)	L.S.	1	14058.00	14058.00

Cost of material

521489.60

1	Transportation on material	4.00%	20860
2	T&P on material cost	1.00%	5215
3	Contigencies on material	2.50%	13037
5	Erection cost on material	5.00%	26074
6	Contractor supervision charges on material	5.00%	26074
7	Insurance , Labour & Finance Cost	3.00%	15645

Service Cost

106905

Sub-Total

628395

8	Turnkey Charges	5.00%	31420
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Total

659815

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	839911	659815
Total Cost of the Estimate	839911	659815

11 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A)	STRUCTURE				
1	Structure for 11 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 11 KV CT	Kg.	315	51.80	16317.00
3	G.I.Nut Bolts	Kg.	100	82.90	8290.00
4	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	55057.00
B)	FOUNDATION(Civil works)				
1	Foundation for 11 kv Isolators	Cmt.	1.3	3027.00	3935.10
2	Foundation for 11 kv Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 11 kv Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
4	Foundation for 11 kv C.Ts	Cmt.	1.3	3027.00	3935.10
5	Foundation for 11 kv Breaker	Cmt.	1.3	3027.00	3935.10
6	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	27545.70
C)	BUS-BAR MATERIAL				
1	AAAC 232 mm ²	Mtrs.	25	127.40	3185.00
2	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	12	845.00	10140.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	12	344.00	4128.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
				Sub Total:	138839.00
D)	CONTROL CABLE				
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands, rerules and tape etc.	L.S.	-	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E)	EARTHING WORK				
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F)	PAINTING OF STRUCTURE				
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Item Code 0601B

33 KV FEEDER BAY With Gantry structure & PT

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
1	33 KV Lightning Arrestors (Station type)	Set	1	13571.00	13571.00
2	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
3	33 KV Isolators without EB (800 Amp.)	Set	2	50510.00	101020.00
4	33 KV VCB complete 1600 Amp (O.D.)	No	1	204195.00	204195.00
5	33 KV P.T.	No	3	18876.00	56628.00
6	CT 200-100/1-1 A , 33 KV	No	3	23353.00	70059.00
7	C&R panel for 33 KV for feeder breaker	Set	1	51178.00	51178.00
8	Marshalling Box	No	1	4284.00	4284.00
9	Structure and foundation cables, clamps, painting etc. as per Table (A+B+C+D+F)	LS	1	352343.70	352343.70
10	Earthing as per Table (E)	LS	1	14058.00	14058.00
	Cost of material				922526.70

1	Transportation on material	4.00%	36901
2	T&P on material cost	1.00%	9225
3	Contigencies on material	2.50%	23063
5	Erection cost on material	5.00%	46126
6	Contractor supervision charges on material	5.00%	46126
7	Insurance , Labour & Finance Cost	3.00%	27676
	Service Cost		189118
	Sub-Total		1111645
8	Turnkey Charges	5.00%	55582

Total

1167227

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1485822	1167227
Total Cost of the Estimate	1485822	1167227

11 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A)	STRUCTURE				
1	Structure for 33 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 33 KV CT	Kg.	315	51.80	16317.00
3	Structure for 33 KV PT	Kg.	315	51.80	16317.00
4	G.I. Gantry Structures	Kg.	1000	70.08	70080.00
5	G.I.Nut Bolts	Kg.	100	82.90	8290.00
6	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	141454.00
B)	FOUNDATION(Civil works)				
1	Foundation for 33 kv Isolators with EB	Cmt.	1.3	3027.00	3935.10
2	Foundation for 33 kv Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 33 kv C.Ts	Cmt.	1.3	3027.00	3935.10
4	Foundation for 33 kv P.Ts	Cmt.	1.3	3027.00	3935.10
5	Foundation for 33 kv Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
6	Foundation for 33 kv Breaker	Cmt.	1.3	3027.00	3935.10
7	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	31480.80
C)	BUS-BAR MATERIAL				
1	AAAC 232 mm2	Mtrs.	25	127.40	3185.00
2	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	12	845.00	10140.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	18	344.00	6192.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
				Sub Total:	140903.00
D)	CONTROL CABLE				
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands, rerules and tape etc.	L.S.	L.S.	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E)	EARTHING WORK				
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F)	PAINTING OF STRUCTURE				
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Item Code No. 0602B

22 KV FEEDER BAY with Gantry structure & PT

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
2	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
3	22 KV Isolators without EB (800 Amp.)	Set	1	35680.00	35680.00
4	22 KV VCB complete 1600 Amp (O.D.)	Set	1	179600.00	179600.00
5	22 KV P.T.	No	3	17855.00	53565.00
6	CT 200-100/1-1 A , 22 KV	Nos.	3	23767.00	71301.00
7	Control C&R Panel 22 KV for feeder with accessories.	Nos.	1	75834.00	75834.00
8	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L.S.	1	330027.60	330027.60
9	Marshalling Box	No	1	4284.00	4284.00
10	Earthing as per Sheet (E)	L.S.	1	14058.00	14058.00

Cost of material

814464.60

1	Transportation on material	4.00%	32579
2	T&P on material cost	1.00%	8145
3	Contigencies on material	2.50%	20362
5	Erection cost on material	5.00%	40723
6	Contractor supervision charges on material	5.00%	40723
7	Insurance , Labour & Finance Cost	3.00%	24434

Service Cost

166965

Sub-Total

981430

8	Turnkey Charges	5.00%	49071
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Total

1030501

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1311777	1030501
Total Cost of the Estimate	1311777	1030501

22 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A)	STRUCTURE				
1	Structure for 22 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 22 KV CT	Kg.	315	51.80	16317.00
3	G.I. Gantry Structures	Kg.	1000	70.08	70080.00
4	G.I.Nut Bolts	Kg.	100	82.90	8290.00
5	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	125137.00
B)	FOUNDATION(Civil works)				
1	Foundation for 22 kV Isolators	Cmt.	1.3	3027.00	3935.10
2	Foundation for 22 kV Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 22 kV Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
4	Foundation for 22 kV C.Ts	Cmt.	1.3	3027.00	3935.10
5	Foundation for 22 kV Breaker	Cmt.	1.3	3027.00	3935.10
6	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	27545.70
C)	BUS-BAR MATERIAL				
1	AAAC 232 mm2	Mtrs.	25	127.40	3185.00
2	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Noa	30	3352.00	100560.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	12	845.00	10140.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	12	344.00	4128.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
				Sub Total:	138839.00
D)	CONTROL CABLE				
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands,rules and tape etc.	L.S.	-	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E)	EARTHING WORK				
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F)	PAINTING OF STRUCTURE				
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Item Code 0603B

11 KV FEEDER BAY with Gantry structure & PT

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
2	11 KV Isolators with EB (800 A)	Set	1	30025.00	30025.00
3	11 KV Isolators without EB (800 Amp.)	Set	1	26630.00	26630.00
4	11 KV VCB 400 A Outdoor	Set	1	103600.00	103600.00
5	11 KV PT	No	3	8965.00	26895.00
6	11 KV CT 400 - 200 / 5 - 5 Outdoor	Nos.	3	10611.00	31833.00
7	C&R Panel for 11 kV Outgoing Feeder OD	Nos.	1	49844.00	49844.00
8	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L.S.	1	350279.70	350279.70
9	Marshalling Box	No	1	4284.00	4284.00
10	Earthing as per Sheet (E)	L.S.	1	14058.00	14058.00

Cost of material

638716.70

1	Transportation on material	4.00%	25549
2	T&P on material cost	1.00%	6387
3	Contigencies on material	2.50%	15968
5	Erection cost on material	5.00%	31936
6	Contractor supervision charges on material	5.00%	31936
7	Insurance , Labour & Finance Cost	3.00%	19162
Service Cost			130937
Sub-Total			769654
8	Turnkey Charges	5.00%	38483

Total

808136

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1028717	808136
Total Cost of the Estimate	1028717	808136

11 KV Feeder bay (Structure, Foundation, Bus bar material, Cable , Earthing Materials & Painting)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amount
A)	STRUCTURE				
1	Structure for 11 KV L.A.	Kg.	250	51.80	12950.00
2	Structure for 11 KV CT	Kg.	315	51.80	16317.00
3	Structure for 11 KV PT	Kg.	315	51.80	16317.00
4	G.I. Gantry Structures	Kg.	1000	70.08	70080.00
5	G.I.Nut Bolts	Kg.	100	82.90	8290.00
6	Welding Rods	Nos.	5000	3.50	17500.00
				Sub Total	141454.00
B)	FOUNDATION(Civil works)				
1	Foundation for 11 kv Isolators	Cmt.	1.3	3027.00	3935.10
2	Foundation for 11 kv Isolators without EB	Cmt.	1.3	3027.00	3935.10
3	Foundation for 11 kv Lightning Arrestor	Cmt.	1.3	3027.00	3935.10
4	Foundation for 11 kv C.Ts	Cmt.	1.3	3027.00	3935.10
5	Foundation for 11 kv P.Ts	Cmt.	1.3	3027.00	3935.10
6	Foundation for 11 kv Breaker	Cmt.	1.3	3027.00	3935.10
7	Foundation for Gantry Structures	Cmt.	2.6	3027.00	7870.20
				Sub Total:	31480.80
C)	BUS-BAR MATERIAL				
1	AAAC 232 mm ²	Mtrs.	25	127.40	3185.00
2	Wedge Connectors				
a)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
3	Breaker Clamps	Nos.	6	1688.00	10128.00
4	clamps for Isolator	Nos.	12	845.00	10140.00
5	Clamps for CTs	Nos.	6	1180.00	7080.00
6	Disc Insulator 11 KV 70 KN	Nos.	12	344.00	4128.00
7	Strain Hardware for AAAC232 sq.mm.	Nos.	6	603.00	3618.00
				Sub Total:	138839.00
D)	CONTROL CABLE				
1 a)	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt.	50	331.39	16569.50
b)	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt.	40	55.11	2204.40
c)	Armoured Copper control cable 2Cx4 sq.mm.	Rmt.	50	74.78	3739.00
2	Cable Trays 2.5 Mtr. X 6" W	Nos.	10	333.00	3330.00
3	Cable Glands, rerules and tape etc.	L.S.	-	524.00	524.00
4	Angle for fixing trays 50x50x6mm	Kg.	20	51.80	1036.00
5	Half round cement pipe (150mm X 1mtr)	Nos.	80	110.00	8800.00
6	Sand	Cmt.	4	222.00	888.00
				Sub Total:	37090.90
E)	EARTHING WORK				
1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00
F)	PAINTING OF STRUCTURE				
1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Item Code 0601D					
11 KV FEEDER BAY Without main bus bar Extn. & with take off structure					
Sr.No	Description	Unit	Quantity	Rate	Total Quantity
1	11 KV 250 MVA O.D. Switch gear with one I/C+ one O/G	Set	1	427944.00	427944.00
2	Earthing as per Table No 1	No	1	14058.00	14058.00
3	11 KV Takeoff Structure as per Table No 2	No	1	205175.20	205175.20
4	Painting of structure as per Table No 4	No	1	1415.00	1415.00
TOTAL COST OF MATERIAL					648592.20

1	Transportation on material	4.00%	25944
2	T&P on material cost	1.00%	6486
3	Contingencies on material	2.50%	16215
5	Erection cost on material	5.00%	32430
6	Contractor supervision charges on material	5.00%	32430
7	Insurance , Labour & Finance Cost	3.00%	19458
Service Cost			132961
Sub-Total			781554
8	Turnkey Charges	5.00%	39078
Total			820631

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1044623	820631
Total Cost of the Estimate	1044623	820631

Table No 1 **EARTHING WORK**

1	M.S. Flats(50 X 10mm)	Kg.	50	48.50	2425.00
2	M.S.Flat 25x6 mm	Kg.	20	48.50	970.00
3	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	Nos.	1	6300.00	6300.00
4	Coal	Kg.	100	15.00	1500.00
5	Salt	Kg.	100	7.00	700.00
6	Welding Rods	Nos.	50	3.50	175.00
7	Hiring of Welding machine	Nos.	1	238.00	238.00
8	Brick & Masonary works for earthing pit	Nos.	1	1750.00	1750.00
				Sub Total:	14058.00

Table No. 2 **Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 5 MVA,33/11 KV Sub Stn. (Outdoor)**

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	6	9254.00	55524.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
7	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
8	Earthing Sets H.T	Sets	3	342.00	1026.00
9	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
10	AAAC 100 mm2	Rmt.	150	51.82	7773.00
11	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
12	G.I.Nut Bolts	Kg.	50	82.90	4145.00
13	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
14	Miscellaneous material	LS	1	475.00	475.00
				Total:	205175.20

Table No. 4 **PAINTING OF STRUCTURE**

1	Red Oxide Paint for 2 coats	Ltrs.	10	85.00	850.00
2	Aluminium Paint for 1 coat	Ltrs.	5	113.00	565.00
				Sub Total:	1415.00

Cost data for 1 Km. 33 KV S/C Line with 100 mm² AAAC (Suspension type) & RSJ 152 X 152 mm 12 mtr. Long.

Sr.No	Particulars	Unit	Qty.	Rate	Amount
1	RSJ 152x152, 12 m long	No.	14.00	19903.00	278642.00
2	RSJ 152x152, 11 m long	No.	2.00	18245.00	36490.00
3	MS Channel 100x50x6 mm	Kg.	495.00	51.80	25641.00
4	M.S.Channel 75x40x6 mm	Kg.	91.00	51.80	4713.80
5	MS angle 50x50x6 mm	Kg.	203.00	51.80	10515.40
6	MS Flat 75x10 mm	Kg.	89.00	48.50	4316.50
7	G.I.Nut Bolts	Kg.	80.00	82.90	6632.00
8	Disc Insulator 11 KV 70 KN	No.	153.00	344.00	52632.00
9	SSN Hardware for 0.1 Dog or AAAC 100 Sq.mm	No.	33.00	225.00	7425.00
10	AAAC 100 mm ²	Mtrs.	3150.00	51.82	163233.00
11	H.T.Stay Set	No.	6.00	598.00	3588.00
12	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	60.00	57.45	3447.00
13	G.I.Wire 8 SWG/ 6 SWG	Kg.	130.00	57.40	7462.00
14	Sleve Joints	No.	3.00	115.00	345.00
15	Danger Board in yard.	No.	14.00	50.00	700.00
16	Earthing Sets H.T	No.	14.00	342.00	4788.00
17	Concreting ration 1:3:6	cmt.	25.00	3027.00	75675.00
18	G.I.Barbed Wire `A' type.	Kg.	60.00	64.27	3856.20
19	Black bituminous paint	Ltr.	6.00	85.00	510.00
20	Red Oxide Paint for 2 coats	Ltr.	20.00	85.00	1700.00
21	Aluminium Paint for 1 coat	Ltr.	9.00	113.00	1017.00
22	Sundries	LS	LS	810.00	810.00
23	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	18	559.00	10062.00

Cost of material**704200.90**

1	Transportation on material	4.00%	28168
2	T&P on material cost	1.00%	7042
3	Contingencies on material	2.50%	17605
5	Erection cost on material	15.00%	105630
6	Contractor supervision charges on material	5.00%	35210
7	Insurance , Labour & Finance Cost	3.00%	21126
	Service Cost		214781
	Sub-Total		918982
8	Turnkey Charges	5.00%	45949

Total**964931**

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	1225450	964931
Total Cost of the Estimate	1225450	964931

Assumption-

- 1) 3- cut points (including 1- rightangle cut point in 1 km.)
- 2) 2- line deviations upto 60°
- 3) 2 Strut support
- 4) 4 span guarding.
- 5) Average span length - 75 mtrs.

Cost data for 33 KV S/C Line Suspension type with 100 mm² AAAC lines on 152 X 152 mm 13 mtr. RSJ

Sr.No	Particulars	Unit	Qty.	Rate	Amount
1	RSJ 152x152, 13 m long	No.	14.00	21562.00	301868.00
2	RSJ 152x152, 11 m long	No.	2.00	18245.00	36490.00
3	MS Channel 100x50x6 mm	Kg.	495.00	51.80	25641.00
4	M.S.Channel 75x40x6 mm	Kg.	91.00	51.80	4713.80
5	MS angle 50x50x6 mm	Kg.	203.00	51.80	10515.40
6	MS Flat 75x10 mm	Kg.	89.00	48.50	4316.50
7	G.I.Nut Bolts	Kg.	80.00	82.90	6632.00
8	Disc Insulator 11 KV 70 KN	No.	153.00	344.00	52632.00
9	SSN Hardware for 0.1 Dog or AAAC 100 Sq.mm	No.	33.00	225.00	7425.00
10	Strain Hardware for Dog 0.1 or Equ.AAAC.	No.	18.00	322.00	5796.00
11	AAAC 100 mm ²	Mtrs.	3150.00	51.82	163233.00
12	H.T.Stay Set	No.	6.00	598.00	3588.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	60.00	57.45	3447.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	130.00	57.40	7462.00
15	Sleeve Joints	No.	3.00	115.00	345.00
16	Danger Board in yard.	No.	14.00	50.00	700.00
17	Earthing Sets H.T	No.	14.00	342.00	4788.00
18	Concreting ration 1:3:6	cmt.	25.00	3027.00	75675.00
19	G.I.Barbed Wire 'A' type.	Kg.	60.00	64.27	3856.20
20	Black bituminous paint	Ltr.	6.00	85.00	510.00
21	Red Oxide Paint for 2 coats	Ltr.	20.00	85.00	1700.00
22	Aluminium Paint for 1 coat	Ltr.	9.00	113.00	1017.00
23	Sundries	LS	LS	810.00	810.00
24	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	18	559.00	10062.00

Cost of material**733222.90**

1	Transportation on material	4.00%	29329
2	T&P on material cost	1.00%	7332
3	Contingencies on material	2.50%	18331
5	Erection cost on material	15.00%	109983
6	Contractor supervision charges on material	5.00%	36661
7	Insurance , Labour & Finance Cost	3.00%	21997

Service Cost**223633****Sub-Total****956856**

8	Turnkey Charges	5.00%	47843
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Total**1004699**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1275954	1004699
Total Cost of the Estimate	1275954	1004699

Assumption-

- 1) 3- cut points (including 1- rightangle cut point in 1 km.)
- 2) 2- line deviations upto 60°
- 3) 2 Strut support
- 4) 4 span guarding.
- 5) Average span length - 75 mtrs.

Cost data for 33 KV S/C Line Pin type with 100 mm² AAC lines on 152 X 152 mm 11 mtr. RSJ

Sr.No	Particulars	Unit	Qty.	Rate	Amount
1	RSJ 152x152, 11 m long	No.	17.00	18245.00	310165.00
2	RSJ 116x100, 10 m long	No.	2.00	10283.00	20566.00
3	MS Channel 100x50x6 mm	Kg.	132.00	51.80	6837.60
4	M.S.Channel 75x40x6 mm	Kg.	91.00	51.80	4713.80
5	33 KV Top Fitting	No.	14.00	382.00	5348.00
6	MS angle 50x50x6 mm	Kg.	54.00	51.80	2797.20
7	M.S. Flats(50 X 10mm)	Kg.	36.00	48.50	1746.00
8	33 kV Pin Insulators with G.I. Pins	No.	42.00	541.00	22722.00
9	Disc Insulator 11 KV 70 KN	No.	54.00	344.00	18576.00
10	G.I.Nut Bolts	Kg.	80.00	82.90	6632.00
11	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	18.00	322.00	5796.00
12	AAAC 100 mm ²	Mtrs.	3150.00	51.82	163233.00
13	H.T.Stay Set	No.	6.00	598.00	3588.00
14	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	60.00	57.45	3447.00
15	G.I.Wire 8 SWG/ 6 SWG	Kg.	130.00	57.40	7462.00
16	Sleeve Joints	No.	3.00	115.00	345.00
17	Danger Board in yard.	No.	17.00	50.00	850.00
18	Earthing Sets H.T	No.	17.00	342.00	5814.00
19	Concreting ration 1:3:6	cmt.	17.50	3027.00	52972.50
20	G.I.Barbed Wire `A' type.	Kg.	80.00	64.27	5141.60
21	Black bituminous paint	Ltr.	6.00	85.00	510.00
22	Red Oxide Paint for 2 coats	Ltr.	20.00	85.00	1700.00
23	Aluminium Paint for 1 coat	Ltr.	9.00	113.00	1017.00
24	Sundries	LS	LS	810.00	810.00
25	Wedge connectors				
a)	DOG TO DOG or equivalent AAC	No	18	559.00	10062.00

Cost of material**662851.70**

1	Transportation on material	4.00%	26514
2	T&P on material cost	1.00%	6629
3	Contingencies on material	2.50%	16571
5	Erection cost on material	15.00%	99428
6	Contractor supervision charges on material	5.00%	33143
7	Insurance , Labour & Finance Cost	3.00%	19886

Service Cost**202170****Sub-Total****865021**

8	Turnkey Charges	5.00%	43251
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Total**908273**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1153495	908273
Total Cost of the Estimate	1153495	908273

Assumption-

- 1) 3- cut points (including 1- rightangle cut point in 1 km.)
- 2) 1- line deviations upto 60°
- 3) 2-Strut support
- 4) Average span length - 60 mtrs.
- 5) concreting for all poles, struts & stages. (1:3:6)

Cost data for 33 KV S/C Line Pin type with 100 mm² AAAC lines on 100 X 116 mm 10 mtr. RSJ Poles

Sr.No	Particulars	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 10 m long	No.	17.00	10283.00	174811.00
2	RSJ 116x100, 9 m long	No.	2.00	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	132.00	51.80	6837.60
4	M.S.Channel 75x40x6 mm	Kg.	91.00	51.80	4713.80
5	33 KV V Cross Arms	No.	14.00	906.00	12684.00
6	33 KV Top Fitting	No.	14.00	382.00	5348.00
7	MS angle 50x50x6 mm	Kg.	54.00	51.80	2797.20
8	M.S. Flats(50 X 10mm)	Kg.	36.00	48.50	1746.00
9	33 kV Pin Insulators with G.I. Pins	No.	42.00	541.00	22722.00
10	G.I.Nut Bolts	Kg.	80.00	82.90	6632.00
11	Disc Insulator 11 KV 70 KN	No.	54.00	344.00	18576.00
12	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	18.00	322.00	5796.00
13	AAAC 100 mm ²	Rmt	3150.00	51.82	163233.00
14	H.T.Stay Set	No.	6.00	598.00	3588.00
15	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	60.00	57.45	3447.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	130.00	57.40	7462.00
17	Sleve Joints	No.	3.00	115.00	345.00
18	Danger Board in yard.	No.	17.00	50.00	850.00
19	Earthing Sets H.T	No.	17.00	342.00	5814.00
20	Concreting ration 1:3:6	cmt.	17.50	3027.00	52972.50
21	G.I.Barbed Wire 'A' type.	Kg.	80.00	64.27	5141.60
22	Black bituminus paint	Ltr.	6.00	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20.00	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9.00	113.00	1017.00
25	Sundries	LS	LS	810.00	810.00
26	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	18	559.00	10062.00

Cost of material**538123.70**

1	Transportation on material	4.00%	21525
2	T&P on material cost	1.00%	5381
3	Contigencies on material	2.50%	13453
5	Erection cost on material	15.00%	80719
6	Contractor supervision charges on material	5.00%	26906
7	Insurance , Labour & Finance Cost	3.00%	16144

Service Cost**164128****Sub-Total****702251**

8	Turnkey Charges	5.00%	35113
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Total**737364**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	936443	737364
Total Cost of the Estimate	936443	737364

Assumption-

- 1) 3- cut points (including 1- rightangle cut point in 1 km.)
- 2) 1- line deviations upto 60°
- 3) 2-Strut support
- 4) Average span length - 60 mtrs.
- 5) concreting for all poles, struts & stages. (1:3:6)

33 kV Single Circuit with 100 sqmm Express/Highway Crossing on 152 X 152 RSJ 13 mtr Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
3	MS Channel 100x50x6 mm	Kg.	70	51.80	3626.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	AAAC 100 mm ²	mtr.	100	51.82	5182.00
7	33 kV Pin Insulators with G.I. Pins	NO.	6	541.00	3246.00
8	Disc Insulator 11 KV 45 KN	NO.	36	244.00	8784.00
9	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	12	322.00	3864.00
10	H.T.Stay Set	No	4	598.00	2392.00
11	G.I.Stay Wire 7/4mm(8 SWG)	kg.	20	57.45	1149.00
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Danger Board in yard.	No.	4	50.00	200.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
15	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
16	Black Bituminus Paint	Ltr.	2	85.00	170.00
17	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
18	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
19	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
20	Sundries	L.S.	1	810.00	810.00
21	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	12	559.00	6708.00

Cost of material**145591.70**

1	Transportation on material	4.00%	5824
2	T&P on material cost	1.00%	1456
3	Contigencies on material	2.50%	3640
5	Erection cost on material	15.00%	21839
6	Contractor supervision charges on material	5.00%	7280
7	Insurance , Labour & Finance Cost	3.00%	4368
	Service Cost		44405
	Sub-Total		189997
8	Turnkey Charges	5.00%	9500

Total**199497**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	253359	199497
Total Cost of the Estimate	253359	199497

33 kV Single Circuit road crossing with 100sqmm on 100 X 116mm,10 mtr RSJ Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
	RSJ 116x100, 10 m long	No.	4	10283.00	41132.00
	MS Channel 100x50x6 mm	Kg.	70	51.80	3626.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	AAAC 100 mm ²	m	100	51.82	5182.00
8	33 kV Pin Insulators with G.I. Pins	NO.	6	541.00	3246.00
11	Disc Insulator 11 KV 45 KN	NO.	36	244.00	8784.00
12	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	12	322.00	3864.00
13	H.T.Stay Set	No	4	598.00	2392.00
14	G.I.Stay Wire 7/4mm(8 SWG)	kg.	20	57.45	1149.00
15	Earthing Sets H.T	No.	4	342.00	1368.00
16	Danger Board in yard.	No.	4	50.00	200.00
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
18	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
19	Black Bituminus Paint	Ltr.	2	85.00	170.00
20	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
21	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
22	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
23	Sundries	L.S.	1	810.00	810.00
24	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	12	559.00	6708.00

Cost of material**97367.70**

1	Transportation on material	4.00%	3895
2	T&P on material cost	1.00%	974
3	Contingencies on material	2.50%	2434
5	Erection cost on material	15.00%	14605
6	Contractor supervision charges on material	5.00%	4868
7	Insurance , Labour & Finance Cost	3.00%	2921
	Service Cost		29697
	Sub-Total		127065
8	Turnkey Charges	5.00%	6353

Total**133418**

Particulars	More than Rs. 40 Crs	
	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	169439	133418
Total Cost of the Estimate	169439	133418

Item Code 0708

Cost Data for laying of 1 Km. 33 KV 3 C 300 mm 2 XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	Rate (Rs.)	Amount
1	XLPE Cable 33 KV, 3 C / 300 mm sq.	Rmt	1000.00	1737.00	1737000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	RCC Tiles (0.6 x 0.5) Mtrs.	No.	940.00	104.00	97760.00
4	33 kV Heat shrik Straight through joint (Al) kit for XLPE 3 C X 300 sqmm	No.	2.00	36900.00	73800.00
5	33 kV Heat shrik Outdoor termination joint (Al) kit for XLPE 3 C X 300 sqmm	No.	2.00	19028.00	38056.00
6	Sand	Cmt.	250.00	222.00	55500.00
7	Misc. for XLPE U/G Cable	LS	1.00	1050.00	1050.00

Cost of material

2020326.00

1	Transportation on material	4.00%	80813
2	T&P on material cost	1.00%	20203
3	Contigencies on material	2.50%	50508
5	Erection cost on material	15.00%	303049
6	Contractor supervision charges on material	5.00%	101016
7	Insurance , Labour & Finance Cost	3.00%	60610

Service Cost

616199

Sub-Total

2636525

8	Turnkey Charges	5.00%	131826
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Total

2768352

Particulars	More than Rs. 40 Crs	
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3515771	2768352
Total Cost of the Estimate	3515771	2768352

33 kV 3 X 300 sqmm XLPE Underground Cable for Railway line crossing

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
7	33 kV Pin Insulators with G.I. Pins	NO.	6	541.00	3246.00
8	AAAC 100 mm2	Rmt	100	51.82	5182.00
9	XLPE Cable 33 KV, 3 C / 300 mm sq.	Rmt	160.00	1737.00	277920.00
10	R.C.C. Pipe 150 mm 2 M	No	35.00	572.00	20020.00
11	Black Bituminus Paint	Ltr.	2	85.00	170.00
12	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
13	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
14	33 kV Heat shrik Outdoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	4.00	19028.00	76112.00
15	Sand	Cmt	500.00	222.00	111000.00
16	Misc. for XLPE U/G Cable	LS	2.00	1050.00	2100.00

Cost of material**703931.60**

1	Transportation on material	4.00%	28157
2	T&P on material cost	1.00%	7039
3	Contigencies on material	2.50%	17598
5	Erection cost on material	15.00%	105590
6	Contractor supervision charges on material	5.00%	35197
7	Insurance , Labour & Finance Cost	3.00%	21118
	Service Cost		214699
	Sub-Total		918631
8	Turnkey Charges	5.00%	45932

Total**964562**

Particulars	More than Rs. 40 Crs	
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1224982	964562
Total Cost of the Estimate	1224982	964562

33 kV Single Circuit 100sqmm, RIVER Crossing on 152 X 152 RSJ 13 mtr H Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	80	51.80	4144.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	AAAC 100 mm ²	m	100	51.82	5182.00
7	33 kV Pin Insulators with G.I. Pins	NO.	6	541.00	3246.00
8	Disc Insulator 11 KV 45 KN	NO.	36	244.00	8784.00
9	Strain Hardware for Dog 0.1 or Equ.AAAC.	No.	12	322.00	3864.00
10	H.T.Stay Set	No	4	598.00	2392.00
11	G.I.Stay Wire 7/4mm(8 SWG)	kg.	20	57.45	1149.00
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Danger Board in yard.	No.	4	50.00	200.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
15	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
16	Black Bituminous Paint	Ltr.	2	85.00	170.00
17	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
18	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
19	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
20	Sundries	L.S.	1	810.00	810.00
21	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	12	559.00	6708.00

Cost of material**148181.70**

1	Transportation on material	4.00%	5927
2	T&P on material cost	1.00%	1482
3	Contingencies on material	2.50%	3705
5	Erection cost on material	15.00%	22227
6	Contractor supervision charges on material	5.00%	7409
7	Insurance , Labour & Finance Cost	3.00%	4445
	Service Cost		45195
	Sub-Total		193377
8	Turnkey Charges	5.00%	9669

Total**203046**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	257866	203046
Total Cost of the Estimate	257866	203046

DOUPLE POLE STRUCTURE(cut point) OF- 33 KV LINE USING13 M LONG RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	2	21562.00	43124.00
2	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
3	MS Channel 100x50x6 mm	Kg.	46	51.80	2382.80
4	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
5	33 kv guarding channel MS100x50	Kg.	80.00	51.80	4144.00
6	33 kV Pin Insulators with G.I. Pins	No.	3	541.00	1623.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
8	Disc Insulator 11 KV 70 KN	No.	18	344.00	6192.00
9	H.T.Stay Set	No.	4	598.00	2392.00
10	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	20	57.45	1149.00
11	Earthing Sets H.T	No	2	342.00	684.00
12	G.I.Wire 8 SWG/ 6 SWG	kg.	6	57.40	344.40
13	G.I.Barbed Wire `A' type.	kg.	7	64.27	449.89
14	Danger Board in yard.	No.	2	50.00	100.00
15	Black Bituminus Paint	Ltr.	1	85.00	85.00
16	Red Oxide Paint for 2 coats	Ltr.	3	85.00	255.00
17	Aluminium Paint for 1 coat	Ltr.	2	113.00	226.00
18	Concreting ration 1:3:6	Cmt.	2	3027.00	6054.00
19	Sundries	LS	1	810.00	810.00

Cost of material**75022.09**

1	Transportation on material	4.00%	3001
2	T&P on material cost	1.00%	750
3	Contingencies on material	2.50%	1876
5	Erection cost on material	15.00%	11253
6	Contractor supervision charges on material	5.00%	3751
7	Insurance , Labour & Finance Cost	3.00%	2251

Service Cost**22882****Sub-Total****97904**

8	Turnkey Charges	5.00%	4895
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Total**102799**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	130553	102799
Total Cost of the Estimate	130553	102799

DOUPLE POLE STRUCTURE (cut point) OF- 33 KV LINE USING 11 M LONG RSJ POLE 152 x 152

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 11 m long	No.	2	18245.00	36490.00
2	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
3	MS Channel 100x50x6 mm	Kg.	46	51.80	2382.80
4	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
5	33 kv guarding channel MS100x50	Kg.	80.00	51.80	4144.00
6	33 kV Pin Insulators with G.I. Pins	No.	3	541.00	1623.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
8	Disc Insulator 11 KV 70 KN	No.	18	344.00	6192.00
9	H.T.Stay Set	No.	4	598.00	2392.00
10	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	20	57.45	1149.00
11	Earthing Sets H.T	No	2	342.00	684.00
12	G.I.Wire 8 SWG/ 6 SWG	kg.	6	57.40	344.40
13	G.I.Barbed Wire `A' type.	kg.	7	64.27	449.89
14	Danger Board in yard.	No.	2	50.00	100.00
15	Black Bituminus Paint	Ltr.	1	85.00	85.00
16	Red Oxide Paint for 2 coats	Ltr.	3	85.00	255.00
17	Aluminium Paint for 1 coat	Ltr.	2	113.00	226.00
18	Concreting ration 1:3:6	Cmt.	2	3027.00	6054.00
19	Sundries	LS	1	810.00	810.00

Cost of material**68388.09**

1	Transportation on material	4.00%	2736
2	T&P on material cost	1.00%	684
3	Contingencies on material	2.50%	1710
5	Erection cost on material	15.00%	10258
6	Contractor supervision charges on material	5.00%	3419
7	Insurance , Labour & Finance Cost	3.00%	2052

Service Cost**20858****Sub-Total****89246**

8	Turnkey Charges	5.00%	4462
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Total**93709**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	119009	93709
Total Cost of the Estimate	119009	93709

DOUPLE POLE STRUCTURE(cut point) OF- 33 KV LINE USING 11 M LONG RSJ POLE 116x100

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
2	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
3	MS Channel 100x50x6 mm	Kg.	46	51.80	2382.80
4	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
5	33 kv guarding channel MS100x50	Kg.	80.00	51.80	4144.00
6	33 kV Pin Insulators with G.I. Pins	No.	3	541.00	1623.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
8	Disc Insulator 11 KV 70 KN	No.	18	344.00	6192.00
9	H.T.Stay Set	No.	4	598.00	2392.00
10	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	20	57.45	1149.00
11	Earthing Sets H.T	No	2	342.00	684.00
12	G.I.Wire 8 SWG/ 6 SWG	kg.	6	57.40	344.40
13	G.I.Barbed Wire `A' type.	kg.	7	64.27	449.89
14	Danger Board in yard.	No.	2	50.00	100.00
15	Black Bituminus Paint	Ltr.	1	85.00	85.00
16	Red Oxide Paint for 2 coats	Ltr.	3	85.00	255.00
17	Aluminium Paint for 1 coat	Ltr.	2	113.00	226.00
18	Concreting ration 1:3:6	Cmt.	2	3027.00	6054.00
19	Sundries	LS	1	810.00	810.00

Cost of material**54520.09**

1	Transportation on material	4.00%	2181
2	T&P on material cost	1.00%	545
3	Contingencies on material	2.50%	1363
5	Erection cost on material	15.00%	8178
6	Contractor supervision charges on material	5.00%	2726
7	Insurance , Labour & Finance Cost	3.00%	1636

Service Cost**16629****Sub-Total****71149**

8	Turnkey Charges	5.00%	3557
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Total**74706**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	94876	74706
Total Cost of the Estimate	94876	74706

SINGLE POLE CUT POINT STRUCTURE FOR 33KV LINE ON RSJ 13 M POLE

S.N.	Description of material	Unit	Qty.	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	1	21562.00	21562.00
2	RSJ 152x152, 12 m long	No.	1	19903.00	19903.00
3	MS Channel 100x50x6 mm	Kg.	35	51.80	1813.00
4	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
5	33 kv guarding channel MS100x50	Kg.	40.00	51.80	2072.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
7	Disc Insulator 11 KV 70 KN	No.	18	344.00	6192.00
8	H.T.Stay Set	No.	2	598.00	1196.00
9	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	10	57.45	574.50
10	Earthing Sets H.T	No.	1	342.00	342.00
11	G.I.Wire 8 SWG/ 6 SWG	Kg.	2	57.40	114.80
12	G.I.Barbed Wire 'A' type.	Kg.	2	64.27	128.54
13	Danger Board in yard.	No.	1	50.00	50.00
14	Concreting ration 1:3:6	Cmt.	1.5	3027.00	4540.50
15	Black Bituminus Paint	Ltr.	0.5	85.00	42.50
16	Red Oxide Paint for 2 coats	Ltr.	1.5	85.00	127.50
17	Aluminium Paint for 1 coat	Ltr.	1	113.00	113.00
18	Sundries	LS	1	810.00	810.00

Cost of material**64103.34**

1	Transportation on material	4.00%	2564
2	T&P on material cost	1.00%	641
3	Contigencies on material	2.50%	1603
5	Erection cost on material	15.00%	9616
6	Contractor supervision charges on material	5.00%	3205
7	Insurance , Labour & Finance Cost	3.00%	1923

Service Cost**19552****Sub-Total****83655**

8	Turnkey Charges	5.00%	4183
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Total**87838**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	111553	87838
Total Cost of the Estimate	111553	87838

SINGLE POLE CUT POINT STRUCTURE FOR 33KV LINE ON RSJ 11 M POLE

S.N.	Description of material	Unit	Qty.	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 11 m long	No.	1	18245.00	18245.00
2	RSJ 152x152, 10 m long	No.	1	16586.00	16586.00
3	MS Channel 100x50x6 mm	Kg.	35	51.80	1813.00
4	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
5	33 kv guarding channel MS100x50	Kg.	40.00	51.80	2072.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
7	Disc Insulator 11 KV 70 KN	No.	18	344.00	6192.00
8	H.T.Stay Set	No.	2	598.00	1196.00
9	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	10	57.45	574.50
10	Earthing Sets H.T	No.	1	342.00	342.00
11	G.I.Wire 8 SWG/ 6 SWG	Kg.	2	57.40	114.80
12	G.I.Barbed Wire 'A' type.	Kg.	2	64.27	128.54
13	Danger Board in yard.	No.	1	50.00	50.00
14	Concreting ration 1:3:6	Cmt.	1.5	3027.00	4540.50
15	Black Bituminus Paint	Ltr.	0.5	85.00	42.50
16	Red Oxide Paint for 2 coats	Ltr.	1.5	85.00	127.50
17	Aluminium Paint for 1 coat	Ltr.	1	113.00	113.00
18	Sundries	LS	1	810.00	810.00

Cost of material**57469.34**

1	Transportation on material	4.00%	2299
2	T&P on material cost	1.00%	575
3	Contigencies on material	2.50%	1437
5	Erection cost on material	15.00%	8620
6	Contractor supervision charges on material	5.00%	2873
7	Insurance , Labour & Finance Cost	3.00%	1724

Service Cost**17528****Sub-Total****74997**

8	Turnkey Charges	5.00%	3750
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Total**78747**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	100008	78747
Total Cost of the Estimate	100008	78747

Cost data for 33 KV S/C Line Pin type with 100 mm² AAAC lines on 100 X 116 mm 11 mtr. RSJ Poles

Sr.No	Particulars	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 11 m long	No.	17.00	11311.00	192287.00
2	RSJ 116x100, 10 m long	No.	2.00	10283.00	20566.00
3	MS Channel 100x50x6 mm	Kg.	132.00	51.80	6837.60
4	M.S.Channel 75x40x6 mm	Kg.	91.00	51.80	4713.80
5	MS angle 50x50x6 mm	Kg.	54.00	51.80	2797.20
6	M.S. Flats(50 X 10mm)	Kg.	36.00	48.50	1746.00
7	33 kV Pin Insulators with G.I. Pins	No.	42.00	541.00	22722.00
8	33 KV V Cross Arms	No.	14.00	906.00	12684.00
9	33 KV Top Fitting	No.	14.00	382.00	5348.00
10	G.I.Nut Bolts	Kg.	80.00	82.90	6632.00
11	Disc Insulator 11 KV 70 KN	No.	54.00	344.00	18576.00
12	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	18.00	322.00	5796.00
13	AAAC 100 mm ²	Rmt	3150.00	51.82	163233.00
14	H.T.Stay Set	No.	6.00	598.00	3588.00
15	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	60.00	57.45	3447.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	130.00	57.40	7462.00
17	Sleve Joints	No.	3.00	115.00	345.00
18	Danger Board in yard.	No.	17.00	50.00	850.00
19	Earthing Sets H.T	No.	17.00	342.00	5814.00
20	Concreting ration 1:3:6	cmt.	17.50	3027.00	52972.50
21	G.I.Barbed Wire 'A' type.	Kg.	80.00	64.27	5141.60
22	Black bituminus paint	Ltr.	6.00	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20.00	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9.00	113.00	1017.00
25	Sundries	LS	LS	810.00	810.00
26	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	18	559.00	10062.00

Cost of material**557657.70**

1	Transportation on material	4.00%	22306
2	T&P on material cost	1.00%	5577
3	Contigencies on material	2.50%	13941
5	Erection cost on material	15.00%	83649
6	Contractor supervision charges on material	5.00%	27883
7	Insurance , Labour & Finance Cost	3.00%	16730

Service Cost**170086****Sub-Total****727743**

8	Turnkey Charges	5.00%	36387
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Total**764130**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	970436	764130
Total Cost of the Estimate	970436	764130

Assumption-

- 1) 3- cut points (including 1- rightangle cut point in 1 km.)
- 2) 1- line deviations upto 60°
- 3) 2-Strut support
- 4) Average span length - 60 mtrs.
- 5) concreting for all poles, struts & stages. (1:3:6)

33 kV Pin type line with 100 sq. mm AAAC conductor on 152 X 152mm, 13 mtr RSJ pole

Sr.No	Description	Unit	Qty.	Rate	Amount
1	RSJ 152x152, 13 m long	No	17	21562.00	366554.00
2	RSJ 116x100, 12 m long	No	2	12339.00	24678.00
3	33 KV V Cross Arms	No	14	906.00	12684.00
4	Clamps for 152 x 152 mm RSJ Pole Stay	Pair	34	252.00	8568.00
5	Clamps for 100 x 116 mm RSJ Pole Stay	Pair	4	170.00	680.00
6	33 KV Top Fitting	No	14	382.00	5348.00
7	33 kV Pin Insulators with G.I. Pins	No	42	541.00	22722.00
8	Disc Insulator 11 KV 70 KN	No	54	344.00	18576.00
9	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	18	322.00	5796.00
10	H.T.Stay Set	Set	6	598.00	3588.00
11	MS Channel 100x50x6 mm	Kg	105	51.80	5439.00
12	33 kv guarding channel MS100x50	Kg.	250.00	51.80	12950.00
13	G.I.Nut Bolts	Kg	100	82.90	8290.00
14	Earthing Sets H.T	Set	32	342.00	10944.00
15	AAAC 100 mm ²	Rmt	2000	51.82	103640.00
16	Danger Board in yard.	No	32	50.00	1600.00
17	Red Oxide Paint for 2 coats	Ltr	30	85.00	2550.00
18	Aluminium Paint for 1 coat	Ltr	30	113.00	3390.00
19	Sundries	LS	1	810.00	810.00
20	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	18	559.00	10062.00
	Cost of Material				617997.00

1	Transportation on material	4.00%	24720
2	T&P on material cost	1.00%	6180
3	Contingencies on material	2.50%	15450
5	Erection cost on material	15.00%	92700
6	Contractor supervision charges on material	5.00%	30900
7	Insurance , Labour & Finance Cost	3.00%	18540
	Service Cost		188489
	Sub-Total		806486
8	Turnkey Charges	5.00%	40324

Total**846810**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1075438	846810
Total Cost of the Estimate	1075438	846810

33 kV Tapping structure using 100 X 116, 11 mtr RSJ pole.

Sr.No	Description of Material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 11 m long	No	4	11311.00	45244.00
2	RSJ 116x100, 10 m long	No	0	10283.00	0.00
3	MS Channel 100x50x6 mm	Kg	204	51.80	10567.20
4	M.S.Channel 75x40x6 mm	Kg	300	51.80	15540.00
5	MS angle 50x50x6 mm	Kg	45	51.80	2331.00
6	M.S. Flats(50 X 10mm)	Kg	35	48.50	1697.50
7	33 kV Pin Insulators with G.I. Pins	No	3	541.00	1623.00
8	G.I.Nut Bolts	Kg	10	82.90	829.00
9	Disc Insulator 11 KV 70 KN	No	18	344.00	6192.00
10	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	6	322.00	1932.00
11	H.T.Stay Set	Set	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	40.00	57.45	2298.00
13	G.I.Wire 8 SWG/ 6 SWG	Kg.	15.000	57.40	861.00
14	Aluminium Jointing Sleeve for 100 Sq mm AAAC	No	6	118.00	708.00
15	Danger Board in yard.	No	4	50.00	200.00
16	Earthing Sets H.T	Set	4	342.00	1368.00
17	G.I.Barbed Wire `A' type.	Kg.	10.00	64.27	642.70
18	33 KV Isolators without EB (800 Amp.)	Set	1.00	50510.00	50510.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1.00	2900.00	2900.00

Cost of Material

147835.40

1	Transportation on material	4.00%	5913
2	T&P on material cost	1.00%	1478
3	Contingencies on material	2.50%	3696
5	Erection cost on material	15.00%	22175
6	Contractor supervision charges on material	5.00%	7392
7	Insurance , Labour & Finance Cost	3.00%	4435

Service Cost**45090****Sub-Total****192925**

8	Turnkey Charges	5.00%	9646
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Total**202571**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	257263	202571
Total Cost of the Estimate	257263	202571

Express/Highway Crossing with 232 sqmm AAAC Conductor on 152 X 152, 13 mtr RSJ Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	80	51.80	4144.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	AAAC 232 mm ²	mtr.	100	127.40	12740.00
6	33 kV Pin Insulators with G.I. Pins	NO.	6	541.00	3246.00
7	Disc Insulator 11 KV 45 KN	NO.	36	244.00	8784.00
8	Strain Hardware for AAAC232 sq.mm.	No.	12	603.00	7236.00
9	H.T.Stay Set	No	4	598.00	2392.00
10	G.I.Stay Wire 7/4mm(8 SWG)	kg.	20	57.45	1149.00
11	Earthing Sets H.T	No.	4	342.00	1368.00
12	Danger Board in yard.	No.	4	50.00	200.00
13	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
14	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
15	Black Bituminus Paint	Ltr.	2	85.00	170.00
16	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
17	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
18	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
19	Sundries	L.S.	1	810.00	810.00
20	Wedge connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	No	12	718.00	8616.00

Cost of material**161019.70**

1	Transportation on material	4.00%	6441
2	T&P on material cost	1.00%	1610
3	Contigencies on material	2.50%	4025
5	Erection cost on material	15.00%	24153
6	Contractor supervision charges on material	5.00%	8051
7	Insurance , Labour & Finance Cost	3.00%	4831
	Service Cost		49111
	Sub-Total		210131
8	Turnkey Charges	5.00%	10507

Total**220637**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	280206	220637
Total Cost of the Estimate	280206	220637

Road Crossing with 232 sqmm AAAC Conductor on 152 X 152, 10 mtr RSJ Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 10 m long	No.	4	16586.00	66344.00
2	M.S.Channel 75x40x6 mm	Kg.	80	51.80	4144.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	AAAC 232 mm ²	m	100	127.40	12740.00
6	33 kV Pin Insulators with G.I. Pins	NO.	6	541.00	3246.00
7	Disc Insulator 11 KV 45 KN	NO.	36	244.00	8784.00
8	Strain Hardware for AAAC232 sq.mm.	No.	12	603.00	7236.00
9	H.T.Stay Set	No	4	598.00	2392.00
10	G.I.Stay Wire 7/4mm(8 SWG)	kg.	20	57.45	1149.00
11	Earthing Sets H.T	No.	4	342.00	1368.00
12	Danger Board in yard.	No.	4	50.00	200.00
13	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
14	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
15	Black Bituminous Paint	Ltr.	2	85.00	170.00
16	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
17	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
18	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
19	Sundries	L.S.	1	810.00	810.00
20	Wedge connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	No	12	718.00	8616.00

Cost of material**141115.70**

1	Transportation on material	4.00%	5645
2	T&P on material cost	1.00%	1411
3	Contingencies on material	2.50%	3528
5	Erection cost on material	15.00%	21167
6	Contractor supervision charges on material	5.00%	7056
7	Insurance , Labour & Finance Cost	3.00%	4233
	Service Cost		43040
	Sub-Total		184156
8	Turnkey Charges	5.00%	9208

Total**193364**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	245570	193364
Total Cost of the Estimate	245570	193364

Cost data for Pin type, 22 KV, ACSR Weasel conductor on 116 X 100 mm, 11 mtr long RSJ Poles

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 11 m long	No.	15	11311.00	169665.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	177	51.80	9168.60
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
6	M.S. Flats(50 X 10mm)	Kg.	34	48.50	1649.00
7	22 KV V cross arm with clamp	No.	13.00	906.00	11778.00
8	22 KV Top Fitting	No.	13.00	382.00	4966.00
9	G.I.Nut Bolts	Kg.	80	82.90	6632.00
10	22 kv Pin Insulators with G.I. Pins	No.	33	336.00	11088.00
11	Disc Insulator 11 KV 45 KN	No.	48	244.00	11712.00
12	Strain Hardware for Weasel/Squirrel	Set	24	179.00	4296.00
13	ACSR Weasel	Rmt	3150	18.50	58275.00
14	H.T.Stay Set	Set	8	598.00	4784.00
15	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
16	Earthing Sets H.T	Set	15	342.00	5130.00
17	G.I.Barbed Wire 'A' type.	Kg.	66	64.27	4241.82
18	Danger Board in yard.	No.	15	50.00	750.00
19	Black Bituminus Paint	Ltr.	6	85.00	510.00
20	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
21	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
22	Concreting ration 1:3:6	Cmt.	17.5	3027.00	52972.50
23	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
24	Sundries	LS	1	810.00	810.00
25	Wedge connectors				
a)	WEASEL TO WEASEL or equivalent AAAC	No	24	114.00	2736.00

Cost of material**404496.12**

1	Transportation on material	4.00%	16180
2	T&P on material cost	1.00%	4045
3	Contingencies on material	2.50%	10112
5	Erection cost on material	15.00%	60674
6	Contractor supervision charges on material	5.00%	20225
7	Insurance , Labour & Finance Cost	3.00%	12135
	Service Cost		123371
	Sub-Total		527867
8	Turnkey Charges	5.00%	26393

Total**554261**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	703904	554261
Total Cost of the Estimate	703904	554261

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) 2- line deviations upto 60°
- 3) 2 Strut support
- 4) 5 Spans carpet guarding.
- 5) Average span lengthe - 70 mtrs.
- 6) Conceriting for all poles, struts & stages. (1:4:8)

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 152x152, 11 m long	No.	17	18245.00	310165.00
2	RSJ 116x100, 10 m long	No.	2	10283.00	20566.00
3	MS Channel 100x50x6 mm	Kg.	607	51.80	31442.60
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	248	51.80	12846.40
6	M.S. Flats(50 X 10mm)	Kg.	107	48.50	5189.50
7	G.I.Nut Bolts	Kg.	90	82.90	7461.00
8	Disc Insulator 11 KV 45 KN	No.	126	244.00	30744.00
9	SSN Hardware for 0.1 Dog or AAC 100 Sq.mm	No.	39.00	225.00	8775.00
10	Strain Hardware for Dog0.1 or Equ.AAC.	No.	24.00	322.00	7728.00
11	AAC 100 mm ²	Rmt	3150	51.82	163233.00
12	Sleeve Joints	No.	3	115.00	345.00
13	H.T.Stay Set	Set	8	598.00	4784.00
14	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
15	Earthing Sets H.T	Set	17	342.00	5814.00
16	G.I.Barbed Wire 'A' type.	Kg.	77	64.27	4948.79
17	Danger Board in yard.	No.	17	50.00	850.00
18	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
19	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
20	Black Bituminus Paint	Ltr.	6	85.00	510.00
21	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
22	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
23	Sundries	LS	1	810.00	810.00
24	Wedge connectors				
a)	DOG TO DOG or equivalent AAC	No	24	559.00	13416.00

Cost of material**711262.89**

1	Transportation on material	4.00%	28451
2	T&P on material cost	1.00%	7113
3	Contingencies on material	2.50%	17782
5	Erection cost on material	15.00%	106689
6	Contractor supervision charges on material	5.00%	35563
7	Insurance , Labour & Finance Cost	3.00%	21338
Service Cost			216935
Sub-Total			928198
8	Turnkey Charges	5.00%	46410

Total**974608**

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	1237740	974608
Total Cost of the Estimate	1237740	974608

Assumption:

- 1)4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 5 strut support considered.

Cost data for 22 KV Single circuit suspension type with 100sq.mm AAAC lines on 152x152 mm 13 mtr RSJ poles

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 152x152, 13 m long	No.	17	21562.00	366554.00
2	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg.	607	51.80	31442.60
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	248	51.80	12846.40
6	M.S. Flats(50 X 10mm)	Kg.	107	48.50	5189.50
7	G.I.Nut Bolts	Kg.	90	82.90	7461.00
8	Disc Insulator 11 KV 45 KN	No.	126	244.00	30744.00
9	SSN Hardware for 0.1 Dog or AAAC 100 Sq.mm	No.	39.00	225.00	8775.00
10	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	24.00	322.00	7728.00
11	AAAC 100 mm ²	Rmt	3150	51.82	163233.00
12	Sleeve Joints	No.	3	115.00	345.00
13	H.T.Stay Set	Set	8	598.00	4784.00
14	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
15	Earthing Sets H.T	Set	17	342.00	5814.00
16	G.I.Barbed Wire 'A' type.	Kg.	77	64.27	4948.79
17	Danger Board in yard.	No.	17	50.00	850.00
18	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
19	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
20	Black Bituminus Paint	Ltr.	6	85.00	510.00
21	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
22	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
23	Sundries	LS	1	810.00	810.00
24	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00

Cost of material**769707.89**

1	Transportation on material	4.00%	30788
2	T&P on material cost	1.00%	7697
3	Contingencies on material	2.50%	19243
5	Erection cost on material	15.00%	115456
6	Contractor supervision charges on material	5.00%	38485
7	Insurance , Labour & Finance Cost	3.00%	23091

Service Cost**234761****Sub-Total****1004469**

8	Turnkey Charges	5.00%	50223
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Total**1054692**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1339446	1054692
Total Cost of the Estimate	1339446	1054692

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 2 strut support considered.

Cost data for 22 KV Single circuit Pin type with 100sq.mm AAAC lines on 152x152 mm 11 mtr RSJ poles

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 152x152, 11 m long	No.	17	18245.00	310165.00
2	RSJ 116x100, 10 m long	No.	2	10283.00	20566.00
3	MS Channel 100x50x6 mm	Kg.	177	51.80	9168.60
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
6	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
7	22 KV V cross arm with clamp	No.	13.00	906.00	11778.00
8	22 KV Top Fitting	No.	13.00	382.00	4966.00
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	22 kV Pin Insulators with G.I. Pins	No.	39	336.00	13104.00
11	Disc Insulator 11 KV 45 KN	No.	48	244.00	11712.00
12	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	24	322.00	7728.00
13	AAAC 100 mm2	Rmt	3150	51.82	163233.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	8	598.00	4784.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
17	Earthing Sets H.T	Set	17	342.00	5814.00
18	G.I.Barbed Wire 'A' type.	Kg.	77	64.27	4948.79
19	Danger Board in yard.	No.	17	50.00	850.00
20	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00

678518.09

Cost of material

1	Transportation on material	4.00%	27141
2	T&P on material cost	1.00%	6785
3	Contigencies on material	2.50%	16963
5	Erection cost on material	15.00%	101778
6	Contractor supervision charges on material	5.00%	33926
7	Insurance , Labour & Finance Cost	3.00%	20356
	Service Cost		206948
	Sub-Total		885466
8	Turnkey Charges	5.00%	44273

Total

929739

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	1180757	929739
Total Cost of the Estimate	1180757	929739

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 2 strut support considered.

Cost data for 22 KV Single circuit Pin type with 100sq.mm AAAC lines on 100x116 mm 10 mtr RSJ poles

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 10 m long	No.	17	10283.00	174811.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	177	51.80	9168.60
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
6	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
7	22 KV V cross arm with clamp	No.	13.00	906.00	11778.00
8	22 KV Top Fitting	No.	13.00	382.00	4966.00
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	22 kV Pin Insulators with G.I. Pins	No.	39	336.00	13104.00
11	Disc Insulator 11 KV 45 KN	No.	48	244.00	11712.00
12	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	24	322.00	7728.00
13	AAAC 100 mm2	Rmt	3150	51.82	163233.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	8	598.00	4784.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
17	Earthing Sets H.T	Set	17	342.00	5814.00
18	G.I.Barbed Wire 'A' type.	Kg.	77	64.27	4948.79
19	Danger Board in yard.	No.	17	50.00	850.00
20	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00
Cost of material					541106.09

1	Transportation on material	4.00%	21644
2	T&P on material cost	1.00%	5411
3	Contigencies on material	2.50%	13528
5	Erection cost on material	15.00%	81166
6	Contractor supervision charges on material	5.00%	27055
7	Insurance , Labour & Finance Cost	3.00%	16233
Service Cost			165037
Sub-Total			706143
8	Turnkey Charges	5.00%	35307

Total**741451**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	941633	741451
Total Cost of the Estimate	941633	741451

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 5 strut support considered.

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	PSC Pole 9 Mtr (200 KG)	No.	18	2260.00	40680.00
2	M.S. Flats(50 X 10mm)	Kg.	39	48.50	1891.50
3	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
4	MS Channel 100x50x6 mm	Kg.	177	51.80	9168.60
5	22 KV V cross arm with clamp	No.	14.00	906.00	12684.00
6	22 KV Top Fitting	No.	14.00	382.00	5348.00
7	22 kV Pin Insulators with G.I. Pins	No.	42	336.00	14112.00
8	Disc Insulator 11 KV 45 KN	No.	48	244.00	11712.00
9	Strain Hardware for Weasel/Squirrel	Set	24	179.00	4296.00
10	ACSR Weasel	Rmt	3150	18.50	58275.00
11	Sleve Joints	No.	3	115.00	345.00
12	H.T.Stay Set	No.	8	598.00	4784.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
14	Earthing Sets H.T	No	18	342.00	6156.00
15	G.I.Barbed Wire 'A' type.	Kg.	30	64.27	1928.10
16	Danger Board in yard.	No.	18	50.00	900.00
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
18	Concreting ration 1:3:6	No.	10	3027.00	30270.00
19	Black Bituminous Paint	Ltr.	6	85.00	510.00
20	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
21	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
22	Sundries	LS	1	810.00	810.00
23	Wedge connectors				
a)	WEASEL TO WEASEL or equivalent AAAC	No	24	114.00	2736.00

Cost of material**227700.80**

1	Transportation on material	4.00%	9108
2	T&P on material cost	1.00%	2277
3	Contingencies on material	2.50%	5693
5	Erection cost on material	15.00%	34155
6	Contractor supervision charges on material	5.00%	11385
7	Insurance , Labour & Finance Cost	3.00%	6831

Service Cost**69449****Sub-Total****297150**

8	Turnkey Charges	5.00%	14857
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Total**312007**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	396245	312007
Total Cost of the Estimate	396245	312007

Cost data for 22 kV Single Circuit Express/Highway Crossing with AAAC 100 sqmm conductor on Double 152 X 152 RSJ 13 mtr Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	AAAC 100 mm ²	m	100	51.82	5182.00
7	22 kV Pin Insulators with G.I. Pins	NO.	6	336.00	2016.00
8	Disc Insulator 11 KV 45 KN	NO.	24	244.00	5856.00
9	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	12	322.00	3864.00
10	H.T.Stay Set	No	4	598.00	2392.00
11	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Danger Board in yard.	No.	4	50.00	200.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
15	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
16	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
17	Black Bituminus Paint	Ltr.	2	85.00	170.00
18	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
19	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
20	Sundries	L.S.	1	810.00	810.00
21	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	12	559.00	6708.00

Cost of material**143274.95**

1	Transportation on material	4.00%	5731
2	T&P on material cost	1.00%	1433
3	Contigencies on material	2.50%	3582
5	Erection cost on material	15.00%	21491
6	Contractor supervision charges on material	5.00%	7164
7	Insurance , Labour & Finance Cost	3.00%	4298
	Service Cost		43699
	Sub-Total		186974
8	Turnkey Charges	5.00%	9349

Total**196323**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	249327	196323
Total Cost of the Estimate	249327	196323

Cost data for Road crossing with AAAC 100 sqmm conductor on 100 X 116mm,10 mtr RSJ Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 116x100, 10 m long	No.	4	10283.00	41132.00
2	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	AAAC 100 mm ²	m	100	51.82	5182.00
7	22 kV Pin Insulators with G.I. Pins	NO.	4	336.00	1344.00
8	Disc Insulator 11 KV 45 KN	NO.	24	244.00	5856.00
9	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	12	322.00	3864.00
10	H.T.Stay Set	No	4	598.00	2392.00
11	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Danger Board in yard.	No.	4	50.00	200.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
15	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
16	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
17	Black Bituminus Paint	Ltr.	2	85.00	170.00
18	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
19	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
20	Sundries	L.S.	1	810.00	810.00
21	Wedge connectors			0.00	0.00
a)	DOG TO DOG or equivalent AAAC	No	12	559.00	6708.00

Cost of material**97486.95**

1	Transportation on material	5.00%	4874
2	T&P on material cost	1.00%	975
3	Contigencies on material	2.50%	2437
5	Erection cost on material	15.00%	14623
6	Contractor supervision charges on material	5.00%	4874
7	Insurance , Labour & Finance Cost	3.00%	2925
	Service Cost		30708
	Sub-Total		128195
8	Turnkey Charges	5.00%	6410

Total**134605**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	169647	133581
Total Cost of the Estimate	169647	133581

Item Code No.0811

Cost Data for laying of 1 Km. 22 KV 3 C 95 mm 2 XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	Rate (Rs.)	Amount
1	XLPE Cable 22 KV, 3 C / 95 mm sq.	Rmt	1000.00	846.00	846000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	RCC Tiles (0.6 x 0.5) Mtrs.	No.	940.00	104.00	97760.00
4	22 KV st. through joints for 3 C / 95 mm sq.	No	2.00	12077.00	24154.00
5	22 KV Termination joint (OD) for 3 C / 95 mm sq.	No.	2.00	7381.00	14762.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Misc. for XLPE U/G Cable	LS	1.00	1050.00	1050.00

Cost of material

1056386.00

1	Transportation on material	4.00%	42255
2	T&P on material cost	1.00%	10564
3	Contigencies on material	2.50%	26410
5	Erection cost on material	15.00%	158458
6	Contractor supervision charges on material	5.00%	52819
7	Insurance , Labour & Finance Cost	3.00%	31692

Service Cost

322198

Sub-Total

1378584

8	Turnkey Charges	5.00%	68929
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Total

1447513

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1838323	1447513
Total Cost of the Estimate	1838323	1447513

Cost Data for laying of 1 Km. 22 KV 3 C 300 Sqmm XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	Rate (Rs.)	Amount
1	XLPE Cable 22 KV, 3 C / 300 mm sq.	Rmt	1000.00	1464.00	1464000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	22 kV Heat shrik Straight through joint (Al) kit for XLPE 3 C X 300 sqmm	No.	2.00	24600.00	49200.00
5	22 kV Heat shrik Outdoor termination joint (Al) kit for XLPE 3 C X 300 sqmm	No.	2.00	13715.00	27430.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Misc. for XLPE U/G Cable	LS	1.00	1050.00	1050.00

Cost of material**1717740.00**

1	Transportation on material	4.00%	68710
2	T&P on material cost	1.00%	17177
3	Contigencies on material	2.50%	42944
5	Erection cost on material	15.00%	257661
6	Contractor supervision charges on material	5.00%	85887
7	Insurance , Labour & Finance Cost	3.00%	51532

Service Cost**523911****Sub-Total****2241651**

8	Turnkey Charges	5.00%	112083
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Total**2353733**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	2989211	2353733
Total Cost of the Estimate	2989211	2353733

22 kV 3 X 300 sqmm XLPE Underground Cable for Railway line crossing as per Sketch

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	22KV A.B.Switch, 400 A	Set	2	14447.00	28894.00
7	22KV H.G.Fuses	Set	2	4467.00	8934.00
8	AAAC 100 mm ²	Rmt	100	51.82	5182.00
9	XLPE Cable 22 KV, 3 C / 300 mm sq.	Rmt	160.00	1464.00	234240.00
10	R.C.C. Pipe 150 mm 2 M	No	60.00	572.00	34320.00
11	22 kV Heat shrik Outdoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	4.00	13715.00	54860.00
12	Sand	Cmt	500.00	222.00	111000.00
13	Black Bituminus Paint	Ltr.	2	85.00	170.00
14	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
15	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
16	Misc. for XLPE U/G Cable	LS	2.00	1050.00	2100.00

577501.60**Cost of material**

1	Transportation on material	4.00%	23100
2	T&P on material cost	1.00%	5775
3	Contigencies on material	2.50%	14438
5	Erection cost on material	15.00%	86625
6	Contractor supervision charges on material	5.00%	28875
7	Insurance , Labour & Finance Cost	3.00%	17325
	Service Cost		176138
	Sub-Total		753640
8	Turnkey Charges	5.00%	37682

Total**791322**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1004968	791322
Total Cost of the Estimate	1004968	791322

Cost data for RIVER Crossing with 100sqmm conductor on 152 X 152 RSJ 13 mtr H Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	AAAC 100 mm ²	m	100	51.82	5182.00
7	22 kV Pin Insulators with G.I. Pins	NO.	6	336.00	2016.00
8	Disc Insulator 11 KV 45 KN	NO.	24	244.00	5856.00
9	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	12	322.00	3864.00
10	H.T.Stay Set	No	4	598.00	2392.00
11	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Danger Board in yard.	No.	4	50.00	200.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
15	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
16	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
17	Black Bituminus Paint	Ltr.	2	85.00	170.00
18	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
19	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
20	Sundries	L.S.	1	810.00	810.00
21	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	12	559.00	6708.00

Cost of material**143274.95**

1	Transportation on material	4.00%	5731
2	T&P on material cost	1.00%	1433
3	Contigencies on material	2.50%	3582
5	Erection cost on material	15.00%	21491
6	Contractor supervision charges on material	5.00%	7164
7	Insurance , Labour & Finance Cost	3.00%	4298
	Service Cost		43699
	Sub-Total		186974
8	Turnkey Charges	5.00%	9349

Total**196323**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	249327	196323
Total Cost of the Estimate	249327	196323

COST DATA FOR DOUPLE POLE STRUCTURE(cut point) OF- 22 KV LINE USING13 M LONG RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	2	21562.00	43124.00
2	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
5	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
7	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
8	H.T.Stay Set	No.	2	598.00	1196.00
9	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	25	57.45	1436.25
10	Earthing Sets H.T	No	2	342.00	684.00
11	G.I.Wire 8 SWG/ 6 SWG	kg.	6	57.40	344.40
12	G.I.Barbed Wire 'A' type.	kg.	7	64.27	449.89
13	Danger Board in yard.	No.	2	50.00	100.00
14	Black Bituminus Paint	Ltr.	1	85.00	85.00
15	Red Oxide Paint for 2 coats	Ltr.	3	85.00	255.00
16	Aluminium Paint for 1 coat	Ltr.	2	113.00	226.00
17	Concreting ration 1:3:6	Cmt.	2	3027.00	6054.00
18	Sundries	L.S.	1	810.00	810.00

Cost of material**72187.54**

1	Transportation on material	4.00%	2888
2	T&P on material cost	1.00%	722
3	Contigencies on material	2.50%	1805
5	Erection cost on material	15.00%	10828
6	Contractor supervision charges on material	5.00%	3609
7	Insurance , Labour & Finance Cost	3.00%	2166

Service Cost**22017****Sub-Total****94205**

8	Turnkey Charges	5.00%	4710
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Total**98915**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	125621	98915
Total Cost of the Estimate	125621	98915

COST DATA FOR DOUPLE POLE STRUCTURE(cut point) OF- 22 KV LINE USING11 M LONG RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 11 m long	No.	2	18245.00	36490.00
2	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
5	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
7	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
8	H.T.Stay Set	No.	2	598.00	1196.00
9	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	25	57.45	1436.25
10	Earthing Sets H.T	No	2	342.00	684.00
11	G.I.Wire 8 SWG/ 6 SWG	kg.	6	57.40	344.40
12	G.I.Barbed Wire 'A' type.	kg.	7	64.27	449.89
13	Danger Board in yard.	No.	2	50.00	100.00
14	Black Bituminus Paint	Ltr.	1	85.00	85.00
15	Red Oxide Paint for 2 coats	Ltr.	3	85.00	255.00
16	Aluminium Paint for 1 coat	Ltr.	2	113.00	226.00
17	Concreting ration 1:3:6	Cmt.	2	3027.00	6054.00
18	Sundries	L.S.	1	810.00	810.00

Cost of material**65553.54**

1	Transportation on material	4.00%	2622
2	T&P on material cost	1.00%	656
3	Contigencies on material	2.50%	1639
5	Erection cost on material	15.00%	9833
6	Contractor supervision charges on material	5.00%	3278
7	Insurance , Labour & Finance Cost	3.00%	1967

Service Cost**19994****Sub-Total****85547**

8	Turnkey Charges	5.00%	4277
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Total**89825**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	114076	89825
Total Cost of the Estimate	114076	89825

COST DATA FOR DOUPLE POLE STRUCTURE(cut point) OF- 22 KV LINE USING11 M LONG RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
2	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
5	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
7	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
8	H.T.Stay Set	No.	2	598.00	1196.00
9	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	25	57.45	1436.25
10	Earthing Sets H.T	No	2	342.00	684.00
11	G.I.Wire 8 SWG/ 6 SWG	kg.	6	57.40	344.40
12	G.I.Barbed Wire 'A' type.	kg.	7	64.27	449.89
13	Danger Board in yard.	No.	2	50.00	100.00
14	Black Bituminus Paint	Ltr.	1	85.00	85.00
15	Red Oxide Paint for 2 coats	Ltr.	3	85.00	255.00
16	Aluminium Paint for 1 coat	Ltr.	2	113.00	226.00
17	Concreting ration 1:3:6	Cmt.	2	3027.00	6054.00
18	Sundries	L.S.	1	810.00	810.00

Cost of material**51685.54**

1	Transportation on material	4.00%	2067
2	T&P on material cost	1.00%	517
3	Contigencies on material	2.50%	1292
5	Erection cost on material	15.00%	7753
6	Contractor supervision charges on material	5.00%	2584
7	Insurance , Labour & Finance Cost	3.00%	1551

Service Cost**15764****Sub-Total****67450**

8	Turnkey Charges	5.00%	3372
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Total**70822**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	89943	70822
Total Cost of the Estimate	89943	70822

COST DATA FOR SINGLE POLE CUT POINT STRUCTURE FOR 22KV LINE ON RSJ 9 M POLE

S.N.	Description of material	Unit	Qty.	RT/U.Rs.	Amt Rs.
1	RSJ 116x100, 9 m long	No.	1	9254.00	9254.00
2	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
3	MS Channel 100x50x6 mm	Kg.	35	51.80	1813.00
4	M.S.Channel 75x40x6 mm	Kg.	25	51.80	1295.00
5	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
6	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
7	H.T.Stay Set	No.	1	598.00	598.00
8	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	13	57.45	746.85
9	Earthing Sets H.T	No.	1	342.00	342.00
10	G.I.Wire 8 SWG/ 6 SWG	Kg.	2	57.40	114.80
11	G.I.Barbed Wire `A' type.	Kg.	2	64.27	128.54
12	Danger Board in yard.	No.	1	50.00	50.00
13	Concreting ration 1:3:6	Cmt.	1.5	3027.00	4540.50
14	Black Bituminus Paint	Ltr.	0.5	85.00	42.50
15	Red Oxide Paint for 2 coats	Ltr.	1.5	85.00	127.50
16	Aluminium Paint for 1 coat	Ltr.	1	113.00	113.00
17	Sundries	LS	1	810.00	810.00

Cost of material**28625.69**

1	Transportation on material	4.00%	1145
2	T&P on material cost	1.00%	286
3	Contigencies on material	2.50%	716
5	Erection cost on material	15.00%	4294
6	Contractor supervision charges on material	5.00%	1431
7	Insurance , Labour & Finance Cost	3.00%	859

Service Cost**8731****Sub-Total****37357**

8	Turnkey Charges	5.00%	1868
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Total**39224**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	49814	39224
Total Cost of the Estimate	49814	39224

COST DATA FOR SINGLE POLE CUT POINT STRUCTURE FOR 22KV LINE ON RSJ 11 M POLE

S.N.	Description of material	Unit	Qty.	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 11 m long	No.	1	18245.00	18245.00
2	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
3	MS Channel 100x50x6 mm	Kg.	35	51.80	1813.00
4	M.S.Channel 75x40x6 mm	Kg.	25	51.80	1295.00
5	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
6	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
7	H.T.Stay Set	No.	1	598.00	598.00
8	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	13	57.45	746.85
9	Earthing Sets H.T	No.	1	342.00	342.00
10	G.I.Wire 8 SWG/ 6 SWG	Kg.	2	57.40	114.80
11	G.I.Barbed Wire 'A' type.	Kg.	2	64.27	128.54
12	Danger Board in yard.	No.	1	50.00	50.00
13	Concreting ration 1:3:6	Cmt.	1.5	3027.00	4540.50
14	Black Bituminus Paint	Ltr.	0.5	85.00	42.50
15	Red Oxide Paint for 2 coats	Ltr.	1.5	85.00	127.50
16	Aluminium Paint for 1 coat	Ltr.	1	113.00	113.00
17	Sundries	LS	1	810.00	810.00

Cost of material**37616.69**

1	Transportation on material	4.00%	1505
2	T&P on material cost	1.00%	376
3	Contigencies on material	2.50%	940
5	Erection cost on material	15.00%	5643
6	Contractor supervision charges on material	5.00%	1881
7	Insurance , Labour & Finance Cost	3.00%	1129

Service Cost**11473****Sub-Total****49090**

8	Turnkey Charges	5.00%	2454
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Total**51544**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	65461	51544
Total Cost of the Estimate	65461	51544

COST DATA FOR SINGLE POLE CUT POINT STRUCTURE FOR 22KV LINE ON PSC 9 M POLE

S.N.	Description of material	Unit	Qty.	RT/U.Rs.	Amt Rs.
1	PSC Pole 9 Mtr (200 KG)	No.	1	2260.00	2260.00
2	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
3	MS Channel 100x50x6 mm	Kg.	35	51.80	1813.00
4	M.S.Channel 75x40x6 mm	Kg.	25	51.80	1295.00
5	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
6	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
7	H.T.Stay Set	No.	1	598.00	598.00
8	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	13	57.45	746.85
9	Earthing Sets H.T	No.	1	342.00	342.00
10	G.I.Wire 8 SWG/ 6 SWG	Kg.	2	57.40	114.80
11	G.I.Barbed Wire `A' type.	Kg.	2	64.27	128.54
12	Danger Board in yard.	No.	1	50.00	50.00
13	Concreting ration 1:3:6	Cmt.	1.5	3027.00	4540.50
14	Black Bituminus Paint	Ltr.	0.5	85.00	42.50
15	Red Oxide Paint for 2 coats	Ltr.	1.5	85.00	127.50
16	Aluminium Paint for 1 coat	Ltr.	1	113.00	113.00
17	Sundries	LS	1	810.00	810.00

Cost of material**21631.69**

1	Transportation on material	4.00%	865
2	T&P on material cost	1.00%	216
3	Contigencies on material	2.50%	541
5	Erection cost on material	15.00%	3245
6	Contractor supervision charges on material	5.00%	1082
7	Insurance , Labour & Finance Cost	3.00%	649

Service Cost**6598****Sub-Total****28229**

8	Turnkey Charges	5.00%	1411
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Total**29641**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	37643	29641
Total Cost of the Estimate	37643	29641

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 152x152, 13 m long	No.	17	21562.00	366554.00
2	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
3	G.I.Channel 100x50x6mm	Kg.	607	70.08	42538.56
4	G.I.Channel 75x40x6mm	Kg.	122	70.08	8549.76
5	G.I.Angle 50x50x6mm	Kg.	248	70.08	17379.84
6	G.I Flat 50x10 mm	Kg.	107	66.78	7145.46
7	G.I.Nut Bolts	Kg.	90	82.90	7461.00
8	22 kV Pin Insulators with G.I. Pins	No.	3	336.00	1008.00
9	Disc Insulator 11 KV 45 KN	No.	126	244.00	30744.00
10	Suspension Hardware for 0.2 ACSR or equivalent AAAC	No.	39.00	339.00	13221.00
11	Strain Hardware for AAAC232 sq.mm.	No.	24.00	603.00	14472.00
12	AAAC 232 mm ²	Rmt	3100	127.40	394940.00
13	Jointing Sleeves for Conductor.	No.	3	37.00	111.00
14	H.T.Stay Set	Set	11	598.00	6578.00
15	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
16	Earthing Sets H.T	Set	18	342.00	6156.00
17	G.I.Barbed Wire `A' type.	Kg.	77	64.27	4948.79
18	Danger Board in yard.	No.	18	50.00	900.00
19	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
20	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
21	Black Bituminus Paint	Ltr.	7	85.00	595.00
22	Red Oxide Paint for 2 coats	Ltr.	23	85.00	1955.00
23	Aluminium Paint for 1 coat	Ltr.	12	113.00	1356.00
24	Sundries	LS	1	810.00	810.00
25	Wedge connectors				
	PANTHER TO PANTHER or equivalent AAAC	No	24	718.00	17232.00

Cost of material**1022643.41**

1	Transportation on material	4.00%	40906
2	T&P on material cost	1.00%	10226
3	Contigencies on material	2.50%	25566
5	Erection cost on material	15.00%	153397
6	Contractor supervision charges on material	5.00%	51132
7	Insurance , Labour & Finance Cost	3.00%	30679

Service Cost**311906****Sub-Total****1334550**

8	Turnkey Charges	5.00%	66727
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Total**1401277**

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	1779604	1401277
Total Cost of the Estimate	1779604	1401277

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 5 strut support considered.

Single Circuit Pin type with 232sq.mm AAAC lines on 152x152 mm 13 mtr RSJ poles

(A) HT Line :

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 152x152, 13 m long	No.	17	21562.00	366554.00
2	RSJ 152x152, 12 m long	No.	2	19903.00	39806.00
3	MS Channel 100x50x6 mm	Kg.	177	51.80	9168.60
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	22 KV V cross arm with clamp	No.	13	906.00	11778.00
6	22 KV Top Fitting	No.	13	382.00	4966.00
7	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
8	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	22 kV Pin Insulators with G.I. Pins	No.	39	336.00	13104.00
11	Disc Insulator 11 KV 45 KN	No.	48	244.00	11712.00
12	Strain Hardware for AAAC232 sq.mm.	Set	24	603.00	14472.00
13	AAAC 232 mm2	Rmt	3150	127.40	401310.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	8	598.00	4784.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
17	Earthing Sets H.T	Set	17	342.00	5814.00
18	G.I.Barbed Wire 'A' type.	Kg.	77	64.27	4948.79
19	Danger Board in yard.	No.	17	50.00	850.00
20	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Wedge connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	No	24	718.00	17232.00

1002784.09**Cost of material**

1	Transportation on material	4.00%	40111
2	T&P on material cost	1.00%	10028
3	Contigencies on material	2.50%	25070
5	Erection cost on material	15.00%	150418
6	Contractor supervision charges on material	5.00%	50139
7	Insurance , Labour & Finance Cost	3.00%	30084
	Service Cost		305849
	Sub-Total		1308633
8	Turnkey Charges	5.00%	65432

Total**1374065**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1745045	1374065
Total Cost of the Estimate	1745045	1374065

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 5 strut support considered.

Single Circuit Express/Highway Crossing with AAAC 232 sqmm conductor on Double 152 X 152 RSJ 13 mtr Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	AAAC 232 mm ²	m	100	127.40	12740.00
7	22 kV Pin Insulators with G.I. Pins	NO.	6	336.00	2016.00
8	Disc Insulator 11 KV 45 KN	NO.	24	244.00	5856.00
9	Strain Hardware for AAAC232 sq.mm.	No.	12	603.00	7236.00
10	H.T.Stay Set	No	4	598.00	2392.00
11	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Danger Board in yard.	No.	4	50.00	200.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
15	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
16	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
17	Black Bituminus Paint	Ltr.	2	85.00	170.00
18	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
19	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
20	Sundries	L.S.	1	810.00	810.00
21	Wedge connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	No	12	718.00	8616.00

Cost of material**156112.95**

1	Transportation on material	4.00%	6245
2	T&P on material cost	1.00%	1561
3	Contigencies on material	2.50%	3903
5	Erection cost on material	15.00%	23417
6	Contractor supervision charges on material	5.00%	7806
7	Insurance , Labour & Finance Cost	3.00%	4683
	Service Cost		47614
	Sub-Total		203727
8	Turnkey Charges	5.00%	10186

Total**213914**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	271668	213914
Total Cost of the Estimate	271668	213914

Road crossing with AAAC 232 sqmm conductor on 152 X 152mm,13 mtr RSJ Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	60	51.80	3108.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	AAAC 232 mm ²	m	100	127.40	12740.00
7	22 kV Pin Insulators with G.I. Pins	NO.	4	336.00	1344.00
8	Disc Insulator 11 KV 45 KN	NO.	24	244.00	5856.00
9	Strain Hardware for AAAC232 sq.mm.	No.	12	603.00	7236.00
10	H.T.Stay Set	No	4	598.00	2392.00
11	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Danger Board in yard.	No.	4	50.00	200.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
15	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
16	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
17	Black Bituminus Paint	Ltr.	2	85.00	170.00
18	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
19	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
20	Sundries	L.S.	1	810.00	810.00
21	Wedge connectors			0.00	0.00
a)	PANTHER TO PANTHER or equivalent AAAC	No	12	718.00	8616.00

Cost of material**155440.95**

1	Transportation on material	4.00%	6218
2	T&P on material cost	1.00%	1554
3	Contigencies on material	2.50%	3886
5	Erection cost on material	15.00%	23316
6	Contractor supervision charges on material	5.00%	7772
7	Insurance , Labour & Finance Cost	3.00%	4663
	Service Cost		47409
	Sub-Total		202850
8	Turnkey Charges	5.00%	10143

Total**212993**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	270498	212993
Total Cost of the Estimate	270498	212993

Cost Data for Supply, Erection, Testing & Commissioning of HT Pillar

Sr.No.	Particulars	Unit	Qty.	Rate (Rs.)	Amount
1	HT Pillar 22 KV	No.	1.00	69145.00	69145.00
Cost of material					69145.00
1	Transportation on material		4.00%		2766
2	T&P on material cost		1.00%		691
3	Contingencies on material		2.50%		1729
5	Erection cost on material		15.00%		10372
6	Contractor supervision charges on material		5.00%		3457
7	Insurance , Labour & Finance Cost		3.00%		2074
Service Cost					21089
Sub-Total					90234
8	Turnkey Charges		5.00%		4512
Total					94746
9	HT Pillar Foundation		1.00	12554.93	12555
Total Cost of Estimate					107301

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	120326	94746
HT Pillar Foundation	15962	12555
Total Cost of the Estimate	136289	107301

Cost Data for Supply, Erection, Testing & Commissioning of HT Cable Joint Chamber

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	HT Cable Joint Chamber (Civil)	No.	1.00	1149.00	1149.00
Cost of material					1149.00
1	Transportation on material		4.00%		46
2	T&P on material cost		1.00%		11
3	Contingencies on material		2.50%		29
5	Erection cost on material		15.00%		172
6	Contractor supervision charges on material		5.00%		57
7	Insurance , Labour & Finance Cost		3.00%		34
Service Cost					350
Sub-Total					1499
8	Turnkey Charges		5.00%		75
Total					1574
Particulars		DPR Amount		Tender/ Estimate Amount	
		74.02%		37.025%	
Cost with overheads on Material		1999		1574	
Total Cost of the Estimate		1999		1574	

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 9 m long	No.	15	9254.00	138810.00
2	RSJ 116x100, 8 m long	No.	2	8226.00	16452.00
3	MS Channel 100x50x6 mm	Kg.	177	51.80	9168.60
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
6	22 KV V cross arm with clamp	No.	11	906.00	9966.00
7	22 KV Top Fitting	No.	11	382.00	4202.00
8	M.S. Flats(50 X 10mm)	Kg.	34	48.50	1649.00
9	G.I.Nut Bolts	Kg.	80	82.90	6632.00
10	22 kv Pin Insulators with G.I. Pins	No.	33	336.00	11088.00
11	Disc Insulator 11 KV 45 KN	No.	48	244.00	11712.00
12	Strain Hardware forWeasel/Squirrel	Set	24	179.00	4296.00
13	AAAC 55 mm ²	Rmt	3150	28.56	89964.00
14	H.T.Stay Set	Set	8	598.00	4784.00
15	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
16	Earthing Sets H.T	Set	15	342.00	5130.00
17	G.I.Barbed Wire `A' type.	Kg.	66	64.27	4241.82
18	Danger Board in yard.	No.	15	50.00	750.00
19	Black Bituminus Paint	Ltr.	6	85.00	510.00
20	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
21	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
22	Concreting ration 1:3:6	Cmt.	17.5	3027.00	52972.50
23	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
24	Sundries	LS	1	810.00	810.00
25	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**400698.12**

1	Transportation on material	4.00%	16028
2	T&P on material cost	1.00%	4007
3	Contigencies on material	2.50%	10017
5	Erection cost on material	15.00%	60105
6	Contractor supervision charges on material	5.00%	20035
7	Insurance , Labour & Finance Cost	3.00%	12021

Service Cost**122213****Sub-Total****522911**

8	Turnkey Charges	5.00%	26146
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Total**549057**

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	697295	549057
Total Cost of the Estimate	697295	549057

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) 2- line deviations upto 60°
- 3) 2 Strut support
- 4) 5 Spans carpet guarding.
- 5) Average span lengthe - 70 mtrs.
- 6) Conceriting for all poles, struts & stages. (1:4:8)

Pin type, 22 KV, AAAC 55 mm² conductor on 116 X 100 mm, 11 mtr long RSJ Poles

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 11 m long	No.	15	11311.00	169665.00
2	RSJ 116x100, 10 m long	No.	2	10283.00	20566.00
3	MS Channel 100x50x6 mm	Kg.	177	51.80	9168.60
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
6	M.S. Flats(50 X 10mm)	Kg.	34	48.50	1649.00
7	22 KV V cross arm with clamp	No.	11	906.00	9966.00
8	22 KV Top Fitting	No.	11	382.00	4202.00
9	G.I.Nut Bolts	Kg.	80	82.90	6632.00
10	22 kv Pin Insulators with G.I. Pins	No.	33	336.00	11088.00
11	Disc Insulator 11 KV 45 KN	No.	48	244.00	11712.00
12	Strain Hardware for Weasel/Squirrel	Set	24	179.00	4296.00
13	AAAC 55 mm ²	Rmt	3150	28.56	89964.00
14	H.T.Stay Set	Set	8	598.00	4784.00
15	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
16	Earthing Sets H.T	Set	15	342.00	5130.00
17	G.I.Barbed Wire 'A' type.	Kg.	66	64.27	4241.82
18	Danger Board in yard.	No.	15	50.00	750.00
19	Black Bituminous Paint	Ltr.	6	85.00	510.00
20	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
21	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
22	Concreting ration 1:3:6	Cmt.	17.5	3027.00	52972.50
23	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
24	Sundries	LS	1	810.00	810.00
25	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**435667.12**

1	Transportation on material	4.00%	17427
2	T&P on material cost	1.00%	4357
3	Contingencies on material	2.50%	10892
5	Erection cost on material	15.00%	65350
6	Contractor supervision charges on material	5.00%	21783
7	Insurance , Labour & Finance Cost	3.00%	13070
Service Cost			132878
Sub-Total			568546
8	Turnkey Charges	5.00%	28427

Total**596973**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	758148	596973
Total Cost of the Estimate	758148	596973

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) 2- line deviations upto 60°
- 3) 2 Strut support
- 4) 5 Spans carpet guarding.
- 5) Average span lengthe - 70 mtrs.
- 6) Conceriting for all poles, struts & stages. (1:4:8)

Pin type, 22 KV, ACSR Weasel conductor on 116 X 100 mm,9 mtr long RSJ Poles

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 9 m long	No.	15	9254.00	138810.00
2	RSJ 116x100, 8 m long	No.	2	8226.00	16452.00
3	MS Channel 100x50x6 mm	Kg.	177	51.80	9168.60
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
6	M.S. Flats(50 X 10mm)	Kg.	34	48.50	1649.00
7	22 KV V cross arm with clamp	No.	11	906.00	9966.00
8	22 KV Top Fitting	No.	11	382.00	4202.00
9	G.I.Nut Bolts	Kg.	80	82.90	6632.00
10	22 kv Pin Insulators with G.I. Pins	No.	33	336.00	11088.00
11	Disc Insulator 11 KV 45 KN	No.	48	244.00	11712.00
12	Strain Hardware forWeasel/Squirrel	Set	24	179.00	4296.00
13	ACSR Weasel	Rmt	3150	18.50	58275.00
14	H.T.Stay Set	Set	8	598.00	4784.00
15	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
16	Earthing Sets H.T	Set	15	342.00	5130.00
17	G.I.Barbed Wire `A` type.	Kg.	66	64.27	4241.82
18	Danger Board in yard.	No.	15	50.00	750.00
19	Black Bituminus Paint	Ltr.	6	85.00	510.00
20	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
21	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
22	Concreting ration 1:3:6	Cmt.	17.5	3027.00	52972.50
23	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
24	Sundries	LS	1	810.00	810.00
25	Wedge connectors				
a)	WEASEL TO WEASEL or equivalent AAAC	No	24	114.00	2736.00

Cost of material**369009.12**

1	Transportation on material	4.00%	14760
2	T&P on material cost	1.00%	3690
3	Contingencies on material	2.50%	9225
5	Erection cost on material	15.00%	55351
6	Contractor supervision charges on material	5.00%	18450
7	Insurance , Labour & Finance Cost	3.00%	11070
	Service Cost		112548
	Sub-Total		481557
8	Turnkey Charges	5.00%	24078

Total**505635**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	642150	505635
Total Cost of the Estimate	642150	505635

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) 2- line deviations upto 60°
- 3) 2 Strut support
- 4) 5 Spans carpet guarding.
- 5) Average span lengthe - 70 mtrs.
- 6) Conceriting for all poles, struts & stages. (1:4:8)

Item Code No. 0901					
11 KV Pin type line with ACSR weasel Conductor & 200 Kg PSC Poles					
Wind Pressure Zone: 50/75/100 Kg./m2					
S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	PSC Pole 9 Mtr (200 KG)	No.	18	2260.00	40680.00
2	M.S. Flats(50 X 10mm)	Kg.	39	48.50	1891.50
3	11 KV V cross arm with clamp	No.	12	639.00	7668.00
4	11 KV Top fitting with clamp	No.	12	91.00	1092.00
5	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
6	11 kv guarding channel MS 75x40	Kg.	104	51.80	5387.20
7	Disc Insulator 11 KV 70 KN	No.	24	344.00	8256.00
8	11 kv Pin Insulators with G.I. Pins	No.	42	135.00	5670.00
9	ACSR Weasel	Rmt	3150	18.50	58275.00
10	Strain Hardware forWeasel/Squirrel	Set	24	179.00	4296.00
11	Sleeve Joints	No.	3	115.00	345.00
12	H.T.Stay Set	No.	8	598.00	4784.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
14	Earthing Sets H.T	No	18	342.00	6156.00
15	G.I.Barbed Wire 'A' type.	Kg.	30	64.27	1928.10
16	Danger Board in yard.	No.	18	50.00	900.00
17	Black Bituminus Paint	Ltr.	6	85.00	510.00
18	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
19	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
20	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
21	Concreting ration 1:3:6	LS	1	3027.00	3027.00
22	Sundries	LS	2	810.00	1620.00
23	Wedge connectors				
a)	WEASEL TO WEASEL or equivalent AAAC	No	24	114.00	2736.00

Cost of material

176316.40

1	Transportation on material	4.00%	7053
2	T&P on material cost	1.00%	1763
3	Contigencies on material	2.50%	4408
5	Erection cost on material	15.00%	26447
6	Contractor supervision charges on material	5.00%	8816
7	Insurance , Labour & Finance Cost	3.00%	5289
	Service Cost		53777
	Sub-Total		230093
8	Turnkey Charges	5.00%	11505

Total

241598

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	306826	241598
Total Cost of the Estimate	306826	241598

Cost data for 1.0 Km. pin type 11 KV line in town with ACSR Weasel conductor on RSJ Pole.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 11 m long	No.	17	11311.00	192287.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	11 kv guarding channel MS 75x40	Kg.	104	51.80	5387.20
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
6	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
7	11 KV V cross arm with clamp	No.	13	639.00	8307.00
8	11 KV Top fitting with clamp	No.	13	91.00	1183.00
9	11 kV Pin Insulators with G.I. Pins	No.	39	135.00	5265.00
10	Disc Insulator 11 KV 70 KN	No.	24	344.00	8256.00
11	Strain Hardware for 34 Sq.mm AAAC	Set	24	140.00	3360.00
12	ACSR Weasel	Rmt	3150	18.50	58275.00
13	H.T.Stay Set	Set	8	598.00	4784.00
14	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
15	Earthing Sets H.T	Set	17	342.00	5814.00
16	G.I.Barbed Wire 'A' type.	Kg.	66	64.27	4241.82
17	Danger Board in yard.	No.	17	50.00	850.00
18	Black Bituminus Paint	Ltr.	6	85.00	510.00
19	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
20	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
21	Concreting ration 1:3:6	Cmt.	17	3027.00	51459.00
22	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
23	G.I.Nut Bolts	Kg.	80	82.90	6632.00
24	Wedge connectors				
a)	WEASEL TO WEASEL or equivalent AAAC	No	24	114.00	2736.00

Cost of material**404473.72**

1	Transportation on material	4.00%	16179
2	T&P on material cost	1.00%	4045
3	Contigencies on material	2.50%	10112
5	Erection cost on material	15.00%	60671
6	Contractor supervision charges on material	5.00%	20224
7	Insurance , Labour & Finance Cost	3.00%	12134
Service Cost			123364
Sub-Total			527838
8	Turnkey Charges	5.00%	26392

Total**554230**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	703865	554230
Total Cost of the Estimate	703865	554230

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) 2- line deviations upto 60 *
- 3) 2 Strut support
- 4) Average span lengthe - 60 mtrs.
- 5) Conceriting for all poles, struts & stages. (1:4:8)

(A) HT Line :

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 152x152, 11 m long	No.	17	18245.00	310165.00
2	RSJ 116x100, 10 m long	No.	2	10283.00	20566.00
3	11 kv guarding channel MS 75x40	Kg.	104	51.80	5387.20
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	11 KV V cross arm with clamp	No.	13	639.00	8307.00
6	11 KV Top fitting with clamp	No.	13	91.00	1183.00
7	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
8	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	11 kV Pin Insulators with G.I. Pins	No.	39	135.00	5265.00
11	Disc Insulator 11 KV 70 KN	No.	24	344.00	8256.00
12	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	24	322.00	7728.00
13	AAAC 100 mm2	Rmt	3150	51.82	163233.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	8	598.00	4784.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
17	Earthing Sets H.T	Set	17	342.00	5814.00
18	G.I.Barbed Wire 'A' type.	Kg.	71	64.27	4563.17
19	Danger Board in yard.	No.	17	50.00	850.00
20	Concreting ration 1:3:6	Cmt.	18	3027.00	54486.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00
Cost of material					649748.07

1	Transportation on material	4.00%	25990
2	T&P on material cost	1.00%	6497
3	Contigencies on material	2.50%	16244
5	Erection cost on material	15.00%	97462
6	Contractor supervision charges on material	5.00%	32487
7	Insurance , Labour & Finance Cost	3.00%	19492
Service Cost			198173
Sub-Total			847921
8	Turnkey Charges	5.00%	42396

Total**890317**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1130692	890317
Total Cost of the Estimate	1130692	890317

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 4 strut support considered.

(A) HT Line :

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 10 m long	No.	17	10283.00	174811.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	11 kv guarding channel MS 75x40	Kg.	104	51.80	5387.20
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
6	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
7	11 KV V cross arm with clamp	No.	13	639.00	8307.00
8	11 KV Top fitting with clamp	No.	13	91.00	1183.00
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	11 kV Pin Insulators with G.I. Pins	No.	39	135.00	5265.00
11	Disc Insulator 11 KV 70 KN	No.	24	344.00	8256.00
12	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	24	322.00	7728.00
13	AAAC 100 mm2	Rmt	3150	51.82	163233.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	8	598.00	4784.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
17	Earthing Sets H.T	Set	17	342.00	5814.00
18	G.I.Barbed Wire 'A' type.	Kg.	77	64.27	4948.79
19	Danger Board in yard.	No.	17	50.00	850.00
20	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00

Cost of material**518775.69**

1	Transportation on material	4.00%	20751
2	T&P on material cost	1.00%	5188
3	Contigencies on material	2.50%	12969
5	Erection cost on material	15.00%	77816
6	Contractor supervision charges on material	5.00%	25939
7	Insurance , Labour & Finance Cost	3.00%	15563
	Service Cost		158227
	Sub-Total		677002
8	Turnkey Charges	5.00%	33850

Total**710852**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	902773	710852
Total Cost of the Estimate	902773	710852

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 2strut support considered.

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 9 m long	No.	17	9254.00	157318.00
2	RSJ 116x100, 8 m long	No.	2	8226.00	16452.00
3	11 kv guarding channel MS 75x40	Kg.	104	51.80	5387.20
4	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
5	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
6	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
7	11 KV V cross arm with clamp	No.	13	639.00	8307.00
8	11 KV Top fitting with clamp	No.	13	91.00	1183.00
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	11 kv Pin Insulators with G.I. Pins	No.	39	135.00	5265.00
11	Disc Insulator 11 KV 70 KN	No.	24	344.00	8256.00
12	Strain Hardware for 55 Sq.mm AAAC	Set	24	140.00	3360.00
13	AAAC 55 mm2	Rmt	3150	28.56	89964.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	8	598.00	4784.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
17	Earthing Sets H.T	Set	17	342.00	5814.00
18	G.I.Barbed Wire 'A' type.	Kg.	71	64.27	4563.17
19	Danger Board in yard.	No.	17	50.00	850.00
20	Concreting ration 1:3:6	Cmt.	18	3027.00	54486.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00
Cost of material					404470.07

1	Transportation on material	4.00%	16179
2	T&P on material cost	1.00%	4045
3	Contigencies on material	2.50%	10112
5	Erection cost on material	15.00%	60671
6	Contractor supervision charges on material	5.00%	20224
7	Insurance , Labour & Finance Cost	3.00%	12134
Service Cost			123363
Sub-Total			527833
8	Turnkey Charges	5.00%	26392

Total**554225**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	703859	554225
Total Cost of the Estimate	703859	554225

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 4 strut support considered.

(A) HT Line :

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	PSC Pole 9 Mtr (200 KG)	No.	18	2260.00	40680.00
2	11 kv guarding channel MS 75x40	Kg.	104	51.80	5387.20
3	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
4	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
5	11 KV V cross arm with clamp	No.	12	639.00	7668.00
6	11 KV Top fitting with clamp	No.	12	91.00	1092.00
7	M.S. Flats(50 X 10mm)	Kg.	39	48.50	1891.50
8	11 kV Pin Insulators with G.I. Pins	No.	42	135.00	5670.00
9	Disc Insulator 11 KV 70 KN	No.	24	344.00	8256.00
10	Strain Hardware for 55 Sq.mm AAAC	Set	24	140.00	3360.00
11	AAAC 55 mm ²	Rmt	3150	28.56	89964.00
12	Sleeve Joints	No.	3	115.00	345.00
13	H.T.Stay Set	Set	8	598.00	4784.00
14	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
15	Earthing Sets H.T	Set	18	342.00	6156.00
16	G.I.Barbed Wire 'A' type.	Kg.	71	64.27	4563.17
17	Danger Board in yard.	No.	18	50.00	900.00
18	Concreting ration 1:3:6	Cmt.	18	3027.00	54486.00
19	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
20	Black Bituminus Paint	Ltr.	6	85.00	510.00
21	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
22	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
23	G.I.Nut Bolts	Kg.	90	82.90	7461.00
24	Sundries	LS	1	810.00	810.00
25	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**271544.07**

1	Transportation on material	4.00%	10862
2	T&P on material cost	1.00%	2715
3	Contingencies on material	2.50%	6789
5	Erection cost on material	15.00%	40732
6	Contractor supervision charges on material	5.00%	13577
7	Insurance , Labour & Finance Cost	3.00%	8146

Service Cost**82821****Sub-Total****354365**

8	Turnkey Charges	5.00%	17718
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Total**372083**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	472541	372083
Total Cost of the Estimate	472541	372083

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)

Cost for 1.0 Km. Suspension type 11 KV line (for feeder) with AAAC 100 sqmm and RSJ 100 X 116 mm - 11 mtr. Long.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 11 m long	No.	17	11311.00	192287.00
2	RSJ 116x100, 10 m long	No.	2	10283.00	20566.00
3	M.S.Channel 75x40x6 mm	Kg.	524	51.80	27143.20
4	MS angle 50x50x6 mm	Kg.	248	51.80	12846.40
5	M.S. Flats(50 X 10mm)	Kg.	107	48.50	5189.50
6	Disc Insulator 11 KV 70 KN	No.	63	344.00	21672.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	24	322.00	7728.00
8	SSN Hardware for 0.1 Dog or AAAC 100 Sq.mm	Set	39	225.00	8775.00
9	AAAC 100 mm2	Rmt	3150	51.82	163233.00
10	Sleeve Joints	No.	3	115.00	345.00
11	H.T.Stay Set	Set	8	598.00	4784.00
12	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
13	Earthing Sets H.T	Set	17	342.00	5814.00
14	G.I.Barbed Wire `A' type.	Kg.	71	64.27	4563.17
15	Danger Board in yard.	No.	17	50.00	850.00
16	Concreting ration 1:3:6	Cmt.	18	3027.00	54486.00
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
18	Black Bituminus Paint	Ltr.	6	85.00	510.00
19	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
20	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
21	G.I.Nut Bolts	Kg.	90	82.90	7461.00
22	Sundries	LS	1	810.00	810.00
23	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00

Cost of material**567254.27**

1	Transportation on material	4.00%	22690
2	T&P on material cost	1.00%	5673
3	Contingencies on material	2.50%	14181
5	Erection cost on material	15.00%	85088
6	Contractor supervision charges on material	5.00%	28363
7	Insurance , Labour & Finance Cost	3.00%	17018
	Service Cost		173013
	Sub-Total		740267
8	Turnkey Charges	5.00%	37013

Total**777280**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	987136	777280
Total Cost of the Estimate	987136	777280

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 4 strut support considered.

(A) HT Line :

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 11 m long	No.	17	11311.00	192287.00
2	RSJ 116x100, 10 m long	No.	2	10283.00	20566.00
3	M.S.Channel 75x40x6 mm	Kg.	524	51.80	27143.20
4	MS angle 50x50x6 mm	Kg.	248	51.80	12846.40
5	M.S. Flats(50 X 10mm)	Kg.	107	48.50	5189.50
6	Disc Insulator 11 KV 70 KN	No.	63	344.00	21672.00
7	Strain Hardware for 55 Sq.mm AAAC	Set	24	140.00	3360.00
8	Suspension Hardware for 55 sq mm Condr.	No.	39.00	150.00	5850.00
9	AAAC 55 mm ²	Rmt	3150	28.56	89964.00
10	Sleeve Joints	No.	3	115.00	345.00
11	H.T.Stay Set	Set	8	598.00	4784.00
12	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
13	Earthing Sets H.T	Set	17	342.00	5814.00
14	G.I.Barbed Wire `A' type.	Kg.	71	64.27	4563.17
15	Danger Board in yard.	No.	17	50.00	850.00
16	Concreting ration 1:3:6	Cmt.	18	3027.00	54486.00
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
18	Black Bituminus Paint	Ltr.	6	85.00	510.00
19	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
20	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
21	G.I.Nut Bolts	Kg.	90	82.90	7461.00
22	Sundries	LS	1	810.00	810.00
23	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**476012.27**

1	Transportation on material	4.00%	19040
2	T&P on material cost	1.00%	4760
3	Contigencies on material	2.50%	11900
5	Erection cost on material	15.00%	71402
6	Contractor supervision charges on material	5.00%	23801
7	Insurance , Labour & Finance Cost	3.00%	14280
Service Cost			145184
Sub-Total			621196
8	Turnkey Charges	5.00%	31060

Total**652256**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	828357	652256
Total Cost of the Estimate	828357	652256

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 2 strut support considered.

11 kV Single Circuit Express/Highway Crossing with 55 sqmm AAAC line on100X116MM, 11 mtr RSJ Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 116x100, 11 m long	No.	4	11311.00	45244.00
2	M.S.Channel 75x40x6 mm	Kg.	160	51.80	8288.00
3	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
4	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
5	AAAC 55 mm ²	m	100	28.56	2856.00
6	11 kV Pin Insulators with G.I. Pins	NO.	6	135.00	810.00
7	Disc Insulator 11 KV 45 KN	NO.	12	244.00	2928.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
9	H.T.Stay Set	No	4	598.00	2392.00
10	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
11	Earthing Sets H.T	No.	4	342.00	1368.00
12	Danger Board in yard.	No.	4	50.00	200.00
13	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
14	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
15	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
16	Black Bituminus Paint	Ltr.	1	85.00	85.00
17	Red Oxide Paint for 2 coats	Ltr.	3	85.00	255.00
18	Aluminium Paint for 1 coat	Ltr.	2	113.00	226.00
19	Sundries	L.S.	1	810.00	810.00
20	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	12	114.00	1368.00

Cost of material**87972.95**

1	Transportation on material	4.00%	3519
2	T&P on material cost	1.00%	880
3	Contingencies on material	2.50%	2199
5	Erection cost on material	15.00%	13196
6	Contractor supervision charges on material	5.00%	4399
7	Insurance , Labour & Finance Cost	3.00%	2639
	Service Cost		26832
	Sub-Total		114805
8	Turnkey Charges	5.00%	5740

Total**120545**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	153091	120545
Total Cost of the Estimate	153091	120545

11 kV Single Circuit Express/Highway Crossing with 100 sqmm AAC line on 152X152MM, 13 mtr RSJ Poles

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	160	51.80	8288.00
3	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
4	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
5	AAC 100 mm ²	m	100	51.82	5182.00
6	11 kV Pin Insulators with G.I. Pins	NO.	6	135.00	810.00
7	Disc Insulator 11 KV 45 KN	NO.	12	244.00	2928.00
8	Strain Hardware for Dog0.1 or Equ.AAC.	No.	12	322.00	3864.00
9	H.T.Stay Set	No	4	598.00	2392.00
10	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
11	Earthing Sets H.T	No.	4	342.00	1368.00
12	Danger Board in yard.	No.	4	50.00	200.00
13	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
14	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
15	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
16	Black Bituminus Paint	Ltr.	2	85.00	170.00
17	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
18	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
19	Sundries	L.S.	1	810.00	810.00
20	Wedge connectors				
a)	DOG TO DOG or equivalent AAC	No	12	559.00	6708.00

Cost of material**139140.95**

1	Transportation on material	4.00%	5566
2	T&P on material cost	1.00%	1391
3	Contingencies on material	2.50%	3479
5	Erection cost on material	15.00%	20871
6	Contractor supervision charges on material	5.00%	6957
7	Insurance , Labour & Finance Cost	3.00%	4174
	Service Cost		42438
	Sub-Total		181579
8	Turnkey Charges	5.00%	9079

Total**190658**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	242133	190658
Total Cost of the Estimate	242133	190658

Item Code No. 0913

Cost Data for laying of 1 Km. 11 KV 3 C 300 mm 2 XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	RT/U.Rs.	Amount
1	XLPE Cable 11 KV, 3 C / 300 mm sq.	Rmt	1000.00	1194.00	1194000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	RCC Tiles (0.6 x 0.5) Mtrs.	No.	940.00	104.00	97760.00
4	11 kV heat shrinkable Straight through joint kit for 3 C X 300 sqmm	No	2.00	5289.00	10578.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 300 sqmm	No.	2.00	2030.00	4060.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Misc. for XLPE U/G Cable	LS	1.00	1050.00	1050.00

Cost of material **1380108.00**

1	Transportation on material	4.00%	55204
2	T&P on material cost	1.00%	13801
3	Contingencies on material	2.50%	34503
5	Erection cost on material	15.00%	207016
6	Contractor supervision charges on material	5.00%	69005
7	Insurance , Labour & Finance Cost	3.00%	41403

Service Cost **420933**

Sub-Total **1801041**

8	Turnkey Charges	5.00%	90052
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Total **1891093**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	2401664	1891093
Total Cost of the Estimate	2401664	1891093

Item Code No.0915

Cost Data for laying of 1 Km. 11 KV 3 C 185 mm 2 XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	Rate (Rs.)	Amount
1	XLPE Cable 11 KV, 3 C / 185 mm sq.	Rmt	1000.00	858.00	858000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	11 kV heat shrinkable Straight through joint kit for 3 C X 185 sqmm	No.	2.00	5043.00	10086.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 185 sqmm	No.	2.00	1907.00	3814.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Misc. for XLPE U/G Cable	LS	1.00	1050.00	1050.00

Cost of material

1049010.00

1	Transportation on material	4.00%	41960
2	T&P on material cost	1.00%	10490
3	Contingencies on material	2.50%	26225
5	Erection cost on material	15.00%	157352
6	Contractor supervision charges on material	5.00%	52451
7	Insurance , Labour & Finance Cost	3.00%	31470

Service Cost

319948

Sub-Total

1368958

8	Turnkey Charges	5.00%	68448
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Total

1437406

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1825487	1437406
Total Cost of the Estimate	1825487	1437406

Item Code No.0916

Estimate for laying of 1 Km. 11 KV 3 C 95 mm 2 XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	Rate (Rs.)	Amount
1	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	1000.00	592.00	592000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	11 kV heat shrinkable Straight through joint kit for 3 C X 95 sqmm	No.	2.00	4182.00	8364.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 95 sqmm	No.	2.00	1459.00	2918.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Misc. for XLPE U/G Cable	LS	1.00	1050.00	1050.00

Cost of material

780392.00

1	Transportation on material	4.00%	31216
2	T&P on material cost	1.00%	7804
3	Contingencies on material	2.50%	19510
5	Erection cost on material	15.00%	117059
6	Contractor supervision charges on material	5.00%	39020
7	Insurance , Labour & Finance Cost	3.00%	23412

Service Cost

238020

Sub-Total

1018412

8	Turnkey Charges	5.00%	50921
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Total

1069332

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1358038	1069332
Total Cost of the Estimate	1358038	1069332

Item Code No. 0917

Conversion of 11 kV line by 3 core 185 sqmm Cable

Sr.No.	Particulars	Unit	Qty.	Rate (Rs.)	Amount
1	XLPE Cable 11 KV, 3 C / 185 mm sq.	Rmt	1000.00	858.00	858000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	11 kV heat shrinkable Straight through joint kit for 3 C X 185 sqmm	No	2.00	5043.00	10086.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 185 sqmm	No.	2.00	1907.00	3814.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Misc. for XLPE U/G Cable	LS	1.00	1050.00	1050.00

Cost of material

1049010.00

1	Transportation on material	4.00%	41960
2	T&P on material cost	1.00%	10490
3	Contingencies on material	2.50%	26225
5	Erection cost on material	15.00%	157352
6	Contractor supervision charges on material	5.00%	52451
7	Insurance , Labour & Finance Cost	3.00%	31470

Service Cost

319948

Sub-Total

1368958

8	Turnkey Charges	5.00%	68448
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Total

1437406

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1825487	1437406
Total Cost of the Estimate	1825487	1437406

Conversion of 11 kV line by 3 core 95 sqmm Cable

Sr.No.	Particulars	Unit	Qty.	Rate (Rs.)	Amount
1	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	1000.00	592.00	592000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	11 kV heat shrinkable Straight through joint kit for 3 C X 95 sqmm	No	2.00	4182.00	8364.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 95 sqmm	No.	2.00	1459.00	2918.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Misc. for XLPE U/G Cable	LS	1.00	1050.00	1050.00

Cost of material**780392.00**

1	Transportation on material	4.00%	31216
2	T&P on material cost	1.00%	7804
3	Contingencies on material	2.50%	19510
5	Erection cost on material	15.00%	117059
6	Contractor supervision charges on material	5.00%	39020
7	Insurance , Labour & Finance Cost	3.00%	23412

Service Cost**238020****Sub-Total****1018412**

8	Turnkey Charges	5.00%	50921
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Total**1069332**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1358038	1069332
Total Cost of the Estimate	1358038	1069332

Cost data for Major river crossing with 55 sqmm overhead conductor on 152X152MM,13 mtr RSJ pole as per sketch for one span of 100 mtr.

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	4	21562.00	86248.00
2	M.S.Channel 75x40x6 mm	Kg.	75	51.80	3885.00
3	MS Channel 100x50x6 mm	Kg.	110	51.80	5698.00
4	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
6	AAAC 55 mm2	Rmt	330	28.56	9424.80
7	11 kV Pin Insulators with G.I. Pins	NO.	6	135.00	810.00
8	Disc Insulator 11 KV 45 KN	NO.	12	244.00	2928.00
9	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	12	322.00	3864.00
10	H.T.Stay Set	No	4	598.00	2392.00
11	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Danger Board in yard.	No.	4	50.00	200.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
15	G.I.Barbed Wire `A' type.	kg.	30	64.27	1928.10
16	Black Bituminus Paint	Ltr.	2	85.00	170.00
17	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
18	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
19	Concreting ration 1:3:6	CMT.	4	3027.00	12108.00
20	Sundries	L.S.	1	810.00	810.00
21	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	12	114.00	1368.00

Cost of material**139338.75**

1	Transportation on material	4.00%	5574
2	T&P on material cost	1.00%	1393
3	Contigencies on material	2.50%	3483
5	Erection cost on material	15.00%	20901
6	Contractor supervision charges on material	5.00%	6967
7	Insurance , Labour & Finance Cost	3.00%	4180
	Service Cost		42498
	Sub-Total		181837
8	Turnkey Charges	5.00%	9092

Total**190929**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	242477	190929
Total Cost of the Estimate	242477	190929

DOUPLE POLE STRUCTURE(cut point) OF- 11 KV LINE USING13 M LONG RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	2	21562.00	43124.00
2	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
3	MS Channel 100x50x6 mm	Kg.	110	51.80	5698.00
4	M.S.Channel 75x40x6 mm	Kg.	75	51.80	3885.00
5	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
7	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
8	H.T.Stay Set	No.	2	598.00	1196.00
9	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	25	57.45	1436.25
10	Earthing Sets H.T	No	2	342.00	684.00
11	G.I.Wire 8 SWG/ 6 SWG	kg.	6	57.40	344.40
12	G.I.Barbed Wire 'A' type.	kg.	7	64.27	449.89
13	Danger Board in yard.	No.	2	50.00	100.00
14	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
15	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
16	Black Bituminus Paint	Ltr.	2	85.00	170.00
17	Concreting ration 1:3:6	Cmt.	2	3027.00	6054.00
18	Sundries	L.S.	1	810.00	810.00

Cost of material**71984.54**

1	Transportation on material	4.00%	2879
2	T&P on material cost	1.00%	720
3	Contigencies on material	2.50%	1800
5	Erection cost on material	15.00%	10798
6	Contractor supervision charges on material	5.00%	3599
7	Insurance , Labour & Finance Cost	3.00%	2160

Service Cost**21955****Sub-Total****93940**

8	Turnkey Charges	5.00%	4697
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Total**98637**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	125267	98637
Total Cost of the Estimate	125267	98637

DOUPLE POLE STRUCTURE(cut point) OF- 11 KV LINE USING11 M LONG RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 11 m long	No.	2	18245.00	36490.00
2	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
3	MS Channel 100x50x6 mm	Kg.	110	51.80	5698.00
4	M.S.Channel 75x40x6 mm	Kg.	75	51.80	3885.00
5	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
7	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
8	H.T.Stay Set	No.	2	598.00	1196.00
9	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	25	57.45	1436.25
10	Earthing Sets H.T	No	2	342.00	684.00
11	G.I.Wire 8 SWG/ 6 SWG	kg.	6	57.40	344.40
12	G.I.Barbed Wire 'A' type.	kg.	7	64.27	449.89
13	Danger Board in yard.	No.	2	50.00	100.00
14	Black Bituminus Paint	Ltr.	2	85.00	170.00
15	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
16	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
17	Concreting ration 1:3:6	Cmt.	2	3027.00	6054.00
18	Sundries	L.S.	1	810.00	810.00

Cost of material**65350.54**

1	Transportation on material	4.00%	2614
2	T&P on material cost	1.00%	654
3	Contigencies on material	2.50%	1634
5	Erection cost on material	15.00%	9803
6	Contractor supervision charges on material	5.00%	3268
7	Insurance , Labour & Finance Cost	3.00%	1961

Service Cost**19932****Sub-Total****85282**

8	Turnkey Charges	5.00%	4264
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Total**89547**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	113723	89547
Total Cost of the Estimate	113723	89547

DOUPLE POLE STRUCTURE(cut point) OF- 11 KV LINE USING11 M LONG RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
2	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
3	MS Channel 100x50x6 mm	Kg.	110	51.80	5698.00
4	M.S.Channel 75x40x6 mm	Kg.	75	51.80	3885.00
5	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
6	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
7	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
8	H.T.Stay Set	No.	2	598.00	1196.00
9	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	25	57.45	1436.25
10	Earthing Sets H.T	No	2	342.00	684.00
11	G.I.Wire 8 SWG/ 6 SWG	kg.	6	57.40	344.40
12	G.I.Barbed Wire 'A' type.	kg.	7	64.27	449.89
13	Danger Board in yard.	No.	2	50.00	100.00
14	Black Bituminus Paint	Ltr.	2	85.00	170.00
15	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
16	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
17	Concreting ration 1:3:6	Cmt.	2	3027.00	6054.00
18	Sundries	L.S.	1	810.00	810.00

Cost of material**51482.54**

1	Transportation on material	4.00%	2059
2	T&P on material cost	1.00%	515
3	Contigencies on material	2.50%	1287
5	Erection cost on material	15.00%	7722
6	Contractor supervision charges on material	5.00%	2574
7	Insurance , Labour & Finance Cost	3.00%	1544

Service Cost**15702****Sub-Total****67185**

8	Turnkey Charges	5.00%	3359
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Total**70544**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	89590	70544
Total Cost of the Estimate	89590	70544

SINGLE POLE CUT POINT STRUCTURE FOR 11KV LINE ON RSJ 9 M POLE

S.N.	Description of material	Unit	Qty.	RT/U.Rs.	Amt Rs.
1	RSJ 116x100, 9 m long	No.	1	9254.00	9254.00
2	M.S.Channel 75x40x6 mm	Kg.	40	51.80	2072.00
3	MS angle 50x50x6 mm	Kg.	25	51.80	1295.00
4	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
5	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
6	H.T.Stay Set	No.	2	598.00	1196.00
7	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	13	57.45	746.85
8	Earthing Sets H.T	No.	1	342.00	342.00
9	G.I.Wire 8 SWG/ 6 SWG	Kg.	2	57.40	114.80
10	G.I.Barbed Wire `A' type.	Kg.	2	64.27	128.54
11	Danger Board in yard.	No.	1	50.00	50.00
12	Black Bituminus Paint	Ltr.	0.5	85.00	42.50
13	Red Oxide Paint for 2 coats	Ltr.	1.5	85.00	127.50
14	Aluminium Paint for 1 coat	Ltr.	1	113.00	113.00
15	Concreting ration 1:3:6	Cmt.	1.5	3027.00	4540.50
16	Sundries	LS	1	810.00	810.00

Cost of material**24828.69**

1	Transportation on material	4.00%	993
2	T&P on material cost	1.00%	248
3	Contigencies on material	2.50%	621
5	Erection cost on material	15.00%	3724
6	Contractor supervision charges on material	5.00%	1241
7	Insurance , Labour & Finance Cost	3.00%	745

Service Cost**7573****Sub-Total****32401**

8	Turnkey Charges	5.00%	1620
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Total**34022**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	43207	34022
Total Cost of the Estimate	43207	34022

SINGLE POLE CUT POINT STRUCTURE FOR 11KV LINE ON RSJ 11 M POLE

S.N.	Description of material	Unit	Qty.	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 11 m long	No.	1	18245.00	18245.00
2	M.S.Channel 75x40x6 mm	Kg.	40	51.80	2072.00
3	MS angle 50x50x6 mm	Kg.	25	51.80	1295.00
4	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
5	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
6	H.T.Stay Set	No.	2	598.00	1196.00
7	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	13	57.45	746.85
8	Earthing Sets H.T	No.	1	342.00	342.00
9	G.I.Wire 8 SWG/ 6 SWG	Kg.	2	57.40	114.80
10	G.I.Barbed Wire `A' type.	Kg.	2	64.27	128.54
11	Black Bituminus Paint	Ltr.	0.5	85.00	42.50
12	Red Oxide Paint for 2 coats	Ltr.	1.5	85.00	127.50
13	Aluminium Paint for 1 coat	Ltr.	1	113.00	113.00
14	Danger Board in yard.	No.	1	50.00	50.00
15	Concreting ration 1:3:6	Cmt.	1.5	3027.00	4540.50
16	Sundries	LS	1	810.00	810.00

Cost of material**33819.69**

1	Transportation on material	4.00%	1353
2	T&P on material cost	1.00%	338
3	Contigencies on material	2.50%	845
5	Erection cost on material	15.00%	5073
6	Contractor supervision charges on material	5.00%	1691
7	Insurance , Labour & Finance Cost	3.00%	1015

Service Cost**10315****Sub-Total****44135**

8	Turnkey Charges	5.00%	2207
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Total**46341**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	58853	46341
Total Cost of the Estimate	58853	46341

SINGLE POLE CUT POINT STRUCTURE FOR 11KV LINE ON PSC 9 M POLE

S.N.	Description of material	Unit	Qty.	RT/U.Rs.	Amt Rs.
1	PSC Pole 9 Mtr (200 KG)	No.	1	2260.00	2260.00
2	M.S.Channel 75x40x6 mm	Kg.	40	51.80	2072.00
3	MS angle 50x50x6 mm	Kg.	25	51.80	1295.00
4	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
5	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
6	H.T.Stay Set	No.	2	598.00	1196.00
7	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	13	57.45	746.85
8	Earthing Sets H.T	No.	1	342.00	342.00
9	G.I.Wire 8 SWG/ 6 SWG	Kg.	2	57.40	114.80
10	G.I.Barbed Wire `A' type.	Kg.	2	64.27	128.54
11	Danger Board in yard.	No.	1	50.00	50.00
12	Black Bituminus Paint	Ltr.	0.5	85.00	42.50
13	Red Oxide Paint for 2 coats	Ltr.	1.5	85.00	127.50
14	Aluminium Paint for 1 coat	Ltr.	1	113.00	113.00
15	Concreting ration 1:3:6	Cmt.	1.5	3027.00	4540.50
16	Sundries	LS	1	810.00	810.00

Cost of material**17834.69**

1	Transportation on material	4.00%	713
2	T&P on material cost	1.00%	178
3	Contingencies on material	2.50%	446
5	Erection cost on material	15.00%	2675
6	Contractor supervision charges on material	5.00%	892
7	Insurance , Labour & Finance Cost	3.00%	535
	Service Cost		5440
	Sub-Total		23274
8	Turnkey Charges	5.00%	1164

Total**24438**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	31036	24438
Total Cost of the Estimate	31036	24438

(A) HT Line :

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 11 m long	No.	17	11311.00	192287.00
2	RSJ 116x100, 10 m long	No.	2	10283.00	20566.00
3	11 kv guarding channel MS 75x40	Kg.	104	51.80	5387.20
4	11 KV V cross arm with clamp	No.	13	639.00	8307.00
5	11 KV Top fitting with clamp	No.	13	91.00	1183.00
6	M.S.Channel 75x40x6 mm	Kg.	122	51.80	6319.60
7	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
8	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	11 kV Pin Insulators with G.I. Pins	No.	39	135.00	5265.00
11	Disc Insulator 11 KV 70 KN	No.	24	344.00	8256.00
12	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	24	322.00	7728.00
13	AAAC 100 mm2	Rmt	3150	51.82	163233.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	8	598.00	4784.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	80	57.45	4596.00
17	Earthing Sets H.T	Set	17	342.00	5814.00
18	G.I.Barbed Wire 'A' type.	Kg.	77	64.27	4948.79
19	Danger Board in yard.	No.	17	50.00	850.00
20	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	130	57.40	7462.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00

Cost of material**538309.69**

1	Transportation on material	4.00%	21532
2	T&P on material cost	1.00%	5383
3	Contigencies on material	2.50%	13458
5	Erection cost on material	15.00%	80746
6	Contractor supervision charges on material	5.00%	26915
7	Insurance , Labour & Finance Cost	3.00%	16149
	Service Cost		164184
	Sub-Total		702494
8	Turnkey Charges	5.00%	35125

Total**737619**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	936767	737619
Total Cost of the Estimate	936767	737619

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 2 strut support considered.

Cost Data for Supply, Erection, Testing & Commissioning of HT Pillar

Sr.No.	Particulars	Unit	Qty.	Rate (Rs.)	Amount
1	11 KV Feeder Pillar 4 Way	No.	1.00	76198.00	76198.00
Cost of material					76198.00
1	Transportation on material		4.00%		3048
2	T&P on material cost		1.00%		762
3	Contingencies on material		2.50%		1905
5	Erection cost on material		15.00%		11430
6	Contractor supervision charges on material		5.00%		3810
7	Insurance , Labour & Finance Cost		3.00%		2286
Service Cost					23240
Sub-Total					99438
8	Turnkey Charges		5.00%		4972
Total					104410
9	HT Pillar Foundation		1.00	12554.93	12555
Total Cost of Estimate					116965

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	132600	104410
HT Pillar Foundation	12555	12555
Total Cost of the Estimate	145155	116965

Item Code No. 1001

22 KV ,25 KVA Dist. Transformer centers on 9 mtrs RSJ poles with MCCB Dist box.

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	Distribution T/F 22 / .433 KV 25 KVA O/D	No.	1	75787.00	75787.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	22 kV Pin Insulators with G.I. Pins	NO.	3	336.00	1008.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 25/63 KVA with MCCB	No.	1	12270.00	12270.00
10	L.A.s 22KV (Gapless type) with disconnector	Set.	1	2280.00	2280.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	22KV H.G.Fuses	Set.	1	4467.00	4467.00
15	22KV A.B.Switch, 400 A	No.	1	14447.00	14447.00
16	Danger Board in yard.	No.	2	50.00	100.00
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
18	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
19	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
20	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
21	DTC Metring with Box, single core L.T. XLPE cable (16 sq.mm., 120 mtr length) and other allied material.	No.	1	7514.00	7514.00
22	Sundries	L.S.	1	810.00	810.00

Cost of material

161452.10

1	Transportation on material	4.00%	6458
2	T&P on material cost	1.00%	1615
3	Contingencies on material	2.50%	4036
5	Erection cost on material	15.00%	24218
6	Contractor supervision charges on material	5.00%	8073
7	Insurance , Labour & Finance Cost	3.00%	4844
Service Cost			49243
Sub-Total			210695
8	Turnkey Charges	5.00%	10535

Total

221230

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	280959	221230
Total Cost of the Estimate	280959	221230

Item Code No. 1002

22 KV ,63 KVA Dist. Transformer centers on 9 mtrs RSJ poles with MCCB Dist box.

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	Dist. transformer 63kva,22/0.4kv	No.	1	151370.00	151370.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	22 kV Pin Insulators with G.I. Pins	NO.	3	336.00	1008.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 25/63 KVA with MCCB	No.	1	12270.00	12270.00
10	L.A.s 22KV (Gapless type) with disconnecter	Set.	1	2280.00	2280.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	22KV H.G.Fuses	Set.	1	4467.00	4467.00
15	22KV A.B.Switch, 400 A	No.	1	14447.00	14447.00
16	Danger Board in yard.	No.	2	50.00	100.00
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
18	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
19	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
20	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
21	DTC Metring with Box, single core L.T. XLPE cable (35 sq.mm., 120 mtr length) and other allied material.	No.	1	7514.00	7514.00
22	Sundries	L.S.	1	810.00	810.00

Cost of material

237035.10

1	Transportation on material	4.00%	9481
2	T&P on material cost	1.00%	2370
3	Contingencies on material	2.50%	5926
5	Erection cost on material	15.00%	35555
6	Contractor supervision charges on material	5.00%	11852
7	Insurance , Labour & Finance Cost	3.00%	7111
	Service Cost		72296
	Sub-Total		309331
8	Turnkey Charges	5.00%	15467

Total

324797

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	412488	324797
Total Cost of the Estimate	412488	324797

POLE MOUNTED DISTRIBUTION TRANSFORMER SUB-STATION 100KVA, 22/0.433 KV ON RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	Dist.transformer 100kva,22/0.4kv	No.	1	202380.00	202380.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	22 kV Pin Insulators with G.I. Pins	NO.	3	336.00	1008.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 100 KVA with MCCB	No.	1	12822.00	12822.00
10	L.A.s 22KV (Gapless type) with disconnector	Set.	1	2280.00	2280.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	22KV H.G.Fuses	Set.	1	4467.00	4467.00
15	22KV A.B.Switch, 400 A	No.	1	14447.00	14447.00
16	Danger Board in yard.	No.	2	50.00	100.00
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
18	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
19	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
20	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
21	DTC Metring with Box, single core L.T. XLPE cable (70 sq.mm., 120 mtr length) and other allied material.	No.	1	7529.20	7529.20
22	Sundries	L.S.	1	810.00	810.00

Cost of material**288612.30**

1	Transportation on material	4.00%	11544
2	T&P on material cost	1.00%	2886
3	Contingencies on material	2.50%	7215
5	Erection cost on material	15.00%	43292
6	Contractor supervision charges on material	5.00%	14431
7	Insurance , Labour & Finance Cost	3.00%	8658
	Service Cost		88027
	Sub-Total		376639
8	Turnkey Charges	5.00%	18832

Total**395471**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	502243	395471
Total Cost of the Estimate	502243	395471

Item Code No. 1005

22 KV ,200 KVA Dist. Transformer centers on 100x116mm, 9 mtrs RSJ poles with MCCB Dist box.

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	Dist.transformer 200kva,22/0.4kv	No.	1	306520.00	306520.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	22 kV Pin Insulators with G.I. Pins	NO.	3	336.00	1008.00
8	Disc Insulator 11 KV 45 KN	No.	6	244.00	1464.00
9	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
10	L.T.Dist.Boxes 200 KVA with MCCB	No.	1	24768.00	24768.00
11	L.A.s 22KV (Gapless type) with disconnecter	Set.	1	2280.00	2280.00
12	H.T.Stay Set	No	4	598.00	2392.00
13	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
14	Earthing Sets H.T	No.	3	342.00	1026.00
15	22KV H.G.Fuses	Set.	1	4467.00	4467.00
16	22KV A.B.Switch, 400 A	No.	1	14447.00	14447.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
19	G.I.Barbed Wire `A` type.	kg.	15	64.27	964.05
20	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
21	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
22	DTC Metring with Box, single core L.T. XLPE cable (185 sq.mm., 200 mtr length) and other allied material.	No.	1	7613.00	7613.00
23	Sundries	L.S.	1	810.00	810.00

Cost of material

406246.10

1	Transportation on material	4.00%	16250
2	T&P on material cost	1.00%	4062
3	Contigencies on material	2.50%	10156
5	Erection cost on material	15.00%	60937
6	Contractor supervision charges on material	5.00%	20312
7	Insurance , Labour & Finance Cost	3.00%	12187
	Service Cost		123905
	Sub-Total		530151
8	Turnkey Charges	5.00%	26508

Total

556659

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	706949	556659
Total Cost of the Estimate	706949	556659

Item Code No. 1006

Cost data for Pole mounted Distribution Transformer Sub-station 200 KVA, 22/0.433 kv.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist.transformer 200kva,22/0.4kv	No.	1	306520.00	306520.00
2	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	Kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	Kg.	24	48.50	1164.00
7	22 kV Pin Insulators with G.I. Pins	No.	3	336.00	1008.00
8	Disc Insulator 11 KV 45 KN	No.	6	244.00	1464.00
9	Strain Hardware for 34 Sq.mm AAAC	No.	3	140.00	420.00
10	L.T.Dist.Boxes 200 KVA with MCCB	No.	1	24768.00	24768.00
11	L.A.s 22KV (Gapless type) with disconnecter	No.	1	2280.00	2280.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	16	57.45	919.20
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	22KV H.G.Fuses	Set	1	4467.00	4467.00
16	22KV A.B.Switch, 400 A	No.	1	14447.00	14447.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire `A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	2.3	3027.00	6962.10
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	DTC Metring with Box, single core L.T. XLPE cable (185 sq.mm., 200 mtr length) and other allied material.	No.	1	7613.00	7613.00
23	Sundries	LS	1	810.00	810.00

Cost of material

410538.00

1	Transportation on material	4.00%	16422
2	T&P on material cost	1.00%	4105
3	Contingencies on material	2.50%	10263
5	Erection cost on material	15.00%	61581
6	Contractor supervision charges on material	5.00%	20527
7	Insurance , Labour & Finance Cost	3.00%	12316

Service Cost

125214

Sub-Total

535752

8	Turnkey Charges	5.00%	26788
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Total

562540

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	714418	562540
Total Cost of the Estimate	714418	562540

Item Code No. 1007

22 KV ,315 KVA Dist. Transformer centers on 9 mtrs RSJ poles on plinth.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist. Transformer 315 KVA, 22/0.43 kv	No.	1	460697.00	460697.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	124	51.80	6423.20
4	M.S.Channel 75x40x6 mm	Kg.	100	51.80	5180.00
5	MS angle 50x50x6 mm	Kg.	86	51.80	4454.80
6	M.S. Flats(50 X 10mm)	Kg.	56	48.50	2716.00
7	22 kV Pin Insulators with G.I. Pins	No.	3	336.00	1008.00
8	Disc Insulator 11 KV 45 KN	No.	6	244.00	1464.00
9	Strain Hardware for 34 Sq.mm AAAC	No.	3	140.00	420.00
10	6 way feeder pillar with ACB	No.	1	61963.00	61963.00
11	L.A.s 22KV (Gapless type) with disconnecter	Set	1	2280.00	2280.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	16	57.45	919.20
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	22KV H.G.Fuses	Set	1	4467.00	4467.00
16	22KV A.B.Switch, 400 A	No.	1	14447.00	14447.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire 'A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	10.25	3027.00	31026.75
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00
23	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 280 mtr length) and other allied material.	No.	1	7676.00	7676.00
24	Minor Fabrication, etc.				

Cost of material

630934.85

1	Transportation on material	4.00%	25237
2	T&P on material cost	1.00%	6309
3	Contigencies on material	2.50%	15773
5	Erection cost on material	15.00%	94640
6	Contractor supervision charges on material	5.00%	31547
7	Insurance , Labour & Finance Cost	3.00%	18928

Service Cost

192435

Sub-Total

823370

8	Turnkey Charges	5.00%	41168
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Total

864538

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1097953	864538
Total Cost of the Estimate	1097953	864538

Item Code No. 1008

Cost data for Pole mounted Distribution Transformer Sub-station 315 KVA, 22/0.433 kv.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist. Transformer 315 KVA, 22/0.43 kv	No.	1	460697.00	460697.00
2	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg.	124	51.80	6423.20
4	M.S.Channel 75x40x6 mm	Kg.	100	51.80	5180.00
5	MS angle 50x50x6 mm	Kg.	86	51.80	4454.80
6	M.S. Flats(50 X 10mm)	Kg.	56	48.50	2716.00
7	11 kV Pin Insulators with G.I. Pins	No.	3	135.00	405.00
8	Disc Insulator 11 KV 45 KN	No.	6	244.00	1464.00
9	Strain Hardware for 34 Sq.mm AAAC	No.	3	140.00	420.00
10	6 way feeder pillar with ACB	No.	1	61963.00	61963.00
11	L.A.s 22KV (Gapless type) with disconnecter	Set	1	2280.00	2280.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	16	57.45	919.20
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	22KV H.G.Fuses	Set	1	4467.00	4467.00
16	22KV A.B.Switch, 400 A	No.	1	14447.00	14447.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire 'A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	2.3	3027.00	6962.10
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00
23	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 280 mtr length) and other allied material.	No.	1	7676.00	7676.00
24	Minor Fabrication, etc.				

Cost of material

610381.20

1	Transportation on material	4.00%	24415
2	T&P on material cost	1.00%	6104
3	Contigencies on material	2.50%	15260
5	Erection cost on material	15.00%	91557
6	Contractor supervision charges on material	5.00%	30519
7	Insurance , Labour & Finance Cost	3.00%	18311

Service Cost

186166

Sub-Total

796547

8	Turnkey Charges	5.00%	39827
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Total

836375

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1062185	836375
Total Cost of the Estimate	1062185	836375

Item Code No. 1009

Cost data for Plinth mounted Distribution Transformer Sub-station 630 KVA, 22/0.433 kv.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist. Transformer 630 KVA, 22/0.43 kv	No.	1	682480.00	682480.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	180	51.80	9324.00
4	M.S.Channel 75x40x6 mm	Kg.	150	51.80	7770.00
5	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
6	M.S. Flats(50 X 10mm)	Kg.	75	48.50	3637.50
7	22 kV Pin Insulators with G.I. Pins	No.	3	336.00	1008.00
8	Disc Insulator 11 KV 45 KN	No.	6	244.00	1464.00
9	Strain Hardware for 34 Sq.mm AAAC	No.	3	140.00	420.00
10	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
11	L.A.s 22KV (Gapless type) with disconnecter	Set	1	2280.00	2280.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	24	57.45	1378.80
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	22KV H.G.Fuses	Set	1	4467.00	4467.00
16	22KV A.B.Switch, 400 A	No.	1	14447.00	14447.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire 'A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	10.25	3027.00	31026.75
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00
23	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 630 KVA	No.	1	8076.00	8076.00

Cost of material

862941.95

1	Transportation on material	4.00%	34518
2	T&P on material cost	1.00%	8629
3	Contigencies on material	2.50%	21574
5	Erection cost on material	15.00%	129441
6	Contractor supervision charges on material	5.00%	43147
7	Insurance , Labour & Finance Cost	3.00%	25888
Service Cost			263197
Sub-Total			1126139
8	Turnkey Charges	5.00%	56307

Total

1182446

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1501692	1182446
Total Cost of the Estimate	1501692	1182446

Item Code No. 1010

Cost data for Pole mounted Distribution Transformer Sub-station 630 KVA, 22/0.433 kv.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist. Transformer 630 KVA, 22/0.43 kv	No.	1	682480.00	682480.00
2	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg.	180	51.80	9324.00
4	M.S.Channel 75x40x6 mm	Kg.	150	51.80	7770.00
5	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
6	M.S. Flats(50 X 10mm)	Kg.	75	48.50	3637.50
7	11 kV Pin Insulators with G.I. Pins	No.	3	135.00	405.00
8	Disc Insulator 11 KV 45 KN	No.	6	244.00	1464.00
9	Strain Hardware for 34 Sq.mm AAAC	No.	3	140.00	420.00
10	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
11	L.A.s 22KV (Gapless type) with disconnecter	Set	1	2280.00	2280.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	24	57.45	1378.80
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	22KV H.G.Fuses	Set	1	4467.00	4467.00
16	22KV A.B.Switch, 400 A	No.	1	14447.00	14447.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire 'A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	3.5	3027.00	10594.50
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00
23	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 630 KVA	No.	1	8076.00	8076.00

Cost of material

846020.70

1	Transportation on material	4.00%	33841
2	T&P on material cost	1.00%	8460
3	Contigencies on material	2.50%	21151
5	Erection cost on material	15.00%	126903
6	Contractor supervision charges on material	5.00%	42301
7	Insurance , Labour & Finance Cost	3.00%	25381
Service Cost			258036
Sub-Total			1104057
8	Turnkey Charges	5.00%	55203

Total

1159260

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1472245	1159260
Total Cost of the Estimate	1472245	1159260

Item Code No. 1015

22/0.4 KV ,63 KVA Dist. Transformer centers on RSJ pole 9 mtrs, with kitkat DB.

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	Dist. transformer 63kva,22/0.4kv	No	1	151370.00	151370.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg	44	51.80	2279.20
5	MS angle 50x50x6 mm	Kg	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
7	22 kV Pin Insulators with G.I. Pins	No	3	336.00	1008.00
8	Strain Hardware forWeasel/Squirrel	Set	3	179.00	537.00
9	L.T.Dist.Boxes 100 KVA with KITKAT	No	1	11834.00	11834.00
10	L.A.s 22KV (Gapless type) with disconnector	No	1	2280.00	2280.00
11	H.T.Stay Set	Set	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	25	57.45	1436.25
13	Earthing Sets H.T	Set	7	342.00	2394.00
14	22KV H.G.Fuses	Set	1	4467.00	4467.00
15	22KV A.B.Switch, 400 A	Set	1	14447.00	14447.00
16	Danger Board in yard.	No	2	50.00	100.00
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
18	G.I.Barbed Wire `A' type.	Kg.	15	64.27	964.05
19	Painting/Hardware & support with numbering of pole	No	1	225.00	225.00
20	DTC Metring with Box, single core L.T. XLPE cable (35 sq.mm., 120 mtr length) and other allied material.	Set	1	7514.00	7514.00
21	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
22	Sundries	LS	1	810.00	810.00
Cost of Material					237538.10

1	Transportation on material	4.00%	9502
2	T&P on material cost	1.00%	2375
3	Contingencies on material	2.50%	5938
5	Erection cost on material	15.00%	35631
6	Contractor supervision charges on material	5.00%	11877
7	Insurance , Labour & Finance Cost	3.00%	7126
Service Cost			72449
Sub-Total			309987
8	Turnkey Charges	5.00%	15499

Total **325487**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	413364	325487
Total Cost of the Estimate	413364	325487

22/0.4 KV ,100 KVA Dist. Transformer centers on RSJ pole 9 mtrs, with kitkat DB.

Sr.No	Description	Unit	Qty.	Rate	Amount
1	Dist.transformer 100kva,22/0.4kv	No	1	202380.00	202380.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg	44	51.80	2279.20
5	MS angle 50x50x6 mm	Kg	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
7	22 kV Pin Insulators with G.I. Pins	No	3	336.00	1008.00
8	L.T.Dist.Boxes 100 KVA with KITKAT	No	1	11834.00	11834.00
9	L.A.s 22KV (Gapless type) with disconnecter	Set	1	2280.00	2280.00
10	H.T.Stay Set	Set	4	598.00	2392.00
11	Earthing Sets H.T	Set	5	342.00	1710.00
12	22KV H.G.Fuses	Set	1	4467.00	4467.00
13	22KV A.B.Switch, 400 A	Set	1	14447.00	14447.00
14	Danger Board in yard.	No	2	50.00	100.00
15	Painting/Hardware & support with numbering of pole	LS	1	225.00	225.00
16	DTC Metring with Box, single core L.T. XLPE cable (70 sq.mm., 120 mtr length) and other allied material.	No	1	7529.20	7529.20
17	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
18	Sundries	LS	1	810.00	810.00

Cost of Material**283507.00**

1	Transportation on material	4.00%	11340
2	T&P on material cost	1.00%	2835
3	Contingencies on material	2.50%	7088
5	Erection cost on material	15.00%	42526
6	Contractor supervision charges on material	5.00%	14175
7	Insurance , Labour & Finance Cost	3.00%	8505

Service Cost**86470****Sub-Total****369977**

8	Turnkey Charges	5.00%	18499
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Total**388475**

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	493359	388475
Total Cost of the Estimate	493359	388475

Item Code No. 1017

22/0.4 KV ,100 KVA Dist. Transformer centers on RSJ pole 11 mtrs, with kitkat DB.

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	Dist.transformer 100kva,22/0.4kv	No	1	202380.00	202380.00
2	RSJ 116x100, 11 m long	No	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg	44	51.80	2279.20
5	MS angle 50x50x6 mm	Kg	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
7	22 kV Pin Insulators with G.I. Pins	No	3	336.00	1008.00
8	Strain Hardware forWeasel/Squirrel	Set	3	179.00	537.00
9	L.T.Dist.Boxes 100 KVA with KITKAT	No	1	11834.00	11834.00
10	L.A.s 22KV (Gapless type) with disconnecter	No	1	2280.00	2280.00
11	H.T.Stay Set	Set	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	25	57.45	1436.25
13	Earthing Sets H.T	Set	7	342.00	2394.00
14	22KV H.G.Fuses	Set	1	4467.00	4467.00
15	22KV A.B.Switch, 400 A	Set	1	14447.00	14447.00
16	Danger Board in yard.	No	2	50.00	100.00
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
18	G.I.Barbed Wire `A' type.	Kg.	15	64.27	964.05
19	Painting/Hardware & support with numbering of pole	No	1	225.00	225.00
20	DTC Metring with Box, single core L.T. XLPE cable (70 sq.mm., 120 mtr length) and other allied material.	Set	1	7529.20	7529.20
21	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
22	Sundries	LS	1	810.00	810.00
Cost of Material					292677.30

1	Transportation on material	4.00%	11707
2	T&P on material cost	1.00%	2927
3	Contingencies on material	2.50%	7317
5	Erection cost on material	15.00%	43902
6	Contractor supervision charges on material	5.00%	14634
7	Insurance , Labour & Finance Cost	3.00%	8780
Service Cost			89267
Sub-Total			381944
8	Turnkey Charges	5.00%	19097

Total

401041

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	509317	401041
Total Cost of the Estimate	509317	401041

Sr.No	Description of Material	Unit	Qty.	RT/U.Rs.	Amount (Rs.)
1	Dist.transformer 100kva,22/0.4kv	No.	1	202380.00	202380.00
2	L.T.Dist.Boxes 100 KVA with MCCB	No.	1	12822.00	12822.00
3	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt	25	204.00	5100.00
4	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	10	329.00	3290.00
5	Sundries	no	1	810.00	810.00

Cost of material**224402.00**

1	Transportation on material	4.00%	8976
2	T&P on material cost	1.00%	2244
3	Contigencies on material	2.50%	5610
5	Erection cost on material	15.00%	33660
6	Contractor supervision charges on material	5.00%	11220
7	Insurance , Labour & Finance Cost	3.00%	6732

Service Cost**68443****Sub-Total****292845**

8	Turnkey Charges	5.00%	14642
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Total**307487**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	390504	307487
Total Cost of the Estimate	390504	307487

Sr.No	Description of Material	Unit	Qty.	RT/U.Rs.	Amount (Rs.)
1	Dist.transformer 200kva,22/0.4kv	No.	1.00	306520.00	306520.00
2	L.T.Dist.Boxes 200 KVA with MCCB	No.	1.000	24768.00	24768.00
3	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	25.00	329.00	8225.00
4	L.T. XLPE cable 3.5 Core 240 mm2	Rmt	10.00	628.00	6280.00
5	Sundries	LS	1.00	810.00	810.00

Cost of material**346603.00**

1	Transportation on material	4.00%	13864
2	T&P on material cost	1.00%	3466
3	Contigencies on material	2.50%	8665
5	Erection cost on material	15.00%	51990
6	Contractor supervision charges on material	5.00%	17330
7	Insurance , Labour & Finance Cost	3.00%	10398

Service Cost**105714****Sub-Total****452317**

8	Turnkey Charges	5.00%	22616
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Total**474933**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	603159	474933
Total Cost of the Estimate	603159	474933

Cost Data for Augumentation of Pole mounted Distribution Transformer Sub-station

Sr.No	Description of Material	Unit	Qty	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 315 KVA, 22/0.43 kv	No.	1	460697.00	460697.00
2	6 way feeder pillar with ACB	No.	1	61963.00	61963.00
3	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	25	329.00	8225.00
4	L.T. XLPE cable 3.5 Core 240 mm2	Rmt	10	628.00	6280.00
5	Sundries	LS	1	810.00	810.00

Cost of Material**537975.00**

1	Transportation on material	4.00%	21519
2	T&P on material cost	1.00%	5380
3	Contigencies on material	2.50%	13449
5	Erection cost on material	15.00%	80696
6	Contractor supervision charges on material	5.00%	26899
7	Insurance , Labour & Finance Cost	3.00%	16139

Service Cost**164082****Sub-Total****702057**

8	Turnkey Charges	5.00%	35103
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Total**737160**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	936184	737160
Total Cost of the Estimate	936184	737160

Cost Data for Augumentation of Pole mounted Distribution Transformer Sub-station

Sr.No	Description of Material	Unit	Qty	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 315 KVA, 22/0.43 kv	No.	1	460697.00	460697.00
2	6 way feeder pillar with ACB	No.	1	61963.00	61963.00
3	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	25	329.00	8225.00
4	L.T. XLPE cable 3.5 Core 240 mm2	Rmt	10	628.00	6280.00
5	Sundries	LS	1	810.00	810.00

Cost of Material**537975.00**

1	Transportation on material	4.00%	21519
2	T&P on material cost	1.00%	5380
3	Contigencies on material	2.50%	13449
5	Erection cost on material	15.00%	80696
6	Contractor supervision charges on material	5.00%	26899
7	Insurance , Labour & Finance Cost	3.00%	16139

Service Cost**164082****Sub-Total****702057**

8	Turnkey Charges	5.00%	35103
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Total**737160**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	936184	737160
Total Cost of the Estimate	936184	737160

Cost Data for Augumentation of Pole mounted Distribution Transformer Sub-station

Sr.No	Description of Material	Unit	Qty	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 630 KVA, 22/0.43 kv	No.	1	682480.00	682480.00
2	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
3	L.T. XLPE cable 3.5 Core 300 mm2	Rmt	45	725.00	32625.00
4	Sundries	LS	1	810.00	810.00

Cost of Material**780105.00**

1	Transportation on material	4.00%	31204
2	T&P on material cost	1.00%	7801
3	Contigencies on material	2.50%	19503
5	Erection cost on material	15.00%	117016
6	Contractor supervision charges on material	5.00%	39005
7	Insurance , Labour & Finance Cost	3.00%	23403

Service Cost**237932****Sub-Total****1018037**

8	Turnkey Charges	5.00%	50902
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Total**1068939**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1357539	1068939
Total Cost of the Estimate	1357539	1068939

Cost Data for Augumentation of Pole mounted Distribution Transformer Sub-station

Sr.No	Description of Material	Unit	Qty	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 630 KVA, 22/0.43 kv	No.	1	682480.00	682480.00
2	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
3	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
4	L.T. XLPE cable 3.5 Core 300 mm2	Rmt	45	725.00	32625.00
5	Sundries	LS	1	810.00	810.00

Cost of Material**844295.00**

1	Transportation on material	4.00%	33772
2	T&P on material cost	1.00%	8443
3	Contigencies on material	2.50%	21107
5	Erection cost on material	15.00%	126644
6	Contractor supervision charges on material	5.00%	42215
7	Insurance , Labour & Finance Cost	3.00%	25329

Service Cost**257510****Sub-Total****1101805**

8	Turnkey Charges	5.00%	55090
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Total**1156895**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1469242	1156895
Total Cost of the Estimate	1469242	1156895

Cost Data for Augumentation of Pole mounted Distribution Transformer Sub-station

Sr.No	Description of Material	Unit	Qty	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 630 KVA, 22/0.43 kv	No.	1	682480.00	682480.00
2	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
3	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
4	L.T. XLPE cable 3.5 Core 300 mm2	Rmt	45	725.00	32625.00
5	Sundries	LS	1	810.00	810.00

Cost of Material**844295.00**

1	Transportation on material	4.00%	33772
2	T&P on material cost	1.00%	8443
3	Contigencies on material	2.50%	21107
5	Erection cost on material	15.00%	126644
6	Contractor supervision charges on material	5.00%	42215
7	Insurance , Labour & Finance Cost	3.00%	25329

Service Cost**257510****Sub-Total****1101805**

8	Turnkey Charges	5.00%	55090
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Total**1156895**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1469242	1156895
Total Cost of the Estimate	1469242	1156895

Cost Data for Augmentation of Pole mounted Distribution Transformer Sub-station 22/0.433 kv, 100/200/315 KVA to 22/0.433 kv, 630 KVA on plinth

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 630 KVA, 22/0.43 kv	No.	1	682480.00	682480.00
2	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
3	L.T. XLPE cable 3.5 Core 300 mm2	Rmt	45	725.00	32625.00
4	Sundries	LS	1	810.00	810.00
5	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
6	Earthing Replenishment for DTC	Set	1	12511.00	12511.00

Cost of Material**801184.00**

1	Transportation on material	4.00%	32047
2	T&P on material cost	1.00%	8012
3	Contingencies on material	2.50%	20030
5	Erection cost on material	15.00%	120178
6	Contractor supervision charges on material	5.00%	40059
7	Insurance , Labour & Finance Cost	3.00%	24036
Service Cost			244361
Sub-Total			1045545
8	Turnkey Charges	5.00%	52277

Total**1097822**

Concreting ration 1:3:6	10.25	3027.00	31027
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Total Cost of Estimate**1128849**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1394220	1097822
Concreting ration 1:3:6	31027	31027
Total Cost of the Estimate	1425247	1128849

Sr.No	Description of Material	Unit	Qty.	RT/U.Rs.	Amount (Rs.)
1	Dist.transformer 200kva,22/0.4kv	No.	1.00	306520.00	306520.00
2	L.T.Dist.Boxes 200 KVA with KitKat	No.	1.00	23400.00	23400.00
3	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	25.00	329.00	8225.00
4	L.T. XLPE cable 3.5 Core 240 mm2	Rmt	10.00	628.00	6280.00
5	Sundries	LS	1.00	810.00	810.00

Cost of material**345235.00**

1	Transportation on material	4.00%	13809
2	T&P on material cost	1.00%	3452
3	Contigencies on material	2.50%	8631
5	Erection cost on material	15.00%	51785
6	Contractor supervision charges on material	5.00%	17262
7	Insurance , Labour & Finance Cost	3.00%	10357

Service Cost**105297****Sub-Total****450532**

8	Turnkey Charges	5.00%	22527
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Total**473058**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	600778	473058
Total Cost of the Estimate	600778	473058

POLE MOUNTED DISTRIBUTION TRANSFORMER SUB-STATION, 25 KVA, 11/0.433 KV ON RSJ POLE with MCCB Dist.Box

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	11 / .433 KV 25 KVA Transformer	No.	1	47113.00	47113.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	NO.	3	135.00	405.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 25/63 KVA with MCCB	No.	1	12270.00	12270.00
10	L.As. 11 KV (Gapless type) with disconnector	Set.	1	1268.00	1268.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	11KV H.G.Fuses	Set.	1	1964.00	1964.00
	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
15	Danger Board in yard.	No.	2	50.00	100.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
17	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
18	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
19	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
20	DTC Metring with Box, single core L.T. XLPE cable (16 sq.mm., 120 mtr length) and other allied material.	No.	1	7514.00	7514.00
21	Sundries	L.S.	1	810.00	810.00

Cost of material**123453.10**

1	Transportation on material	4.00%	4938
2	T&P on material cost	1.00%	1235
3	Contingencies on material	2.50%	3086
5	Erection cost on material	15.00%	18518
6	Contractor supervision charges on material	5.00%	6173
7	Insurance , Labour & Finance Cost	3.00%	3704
	Service Cost		37653
	Sub-Total		161106
8	Turnkey Charges	5.00%	8055

Total**169162**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	214833	169162
Total Cost of the Estimate	214833	169162

POLE MOUNTED DISTRIBUTION TRANSFORMER SUB-STATION 63KVA, 11/0.433 KV ON 9 mtr RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	Dist. transformer 63kva, 11/.4kv	No.	1	86216.00	86216.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	NO.	3	135.00	405.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 25/63 KVA with MCCB	No.	1	12270.00	12270.00
10	L.As. 11 KV (Gapless type) with disconnector	Set.	1	1268.00	1268.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	11KV H.G.Fuses	Set.	1	1964.00	1964.00
	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
15	Danger Board in yard.	No.	2	50.00	100.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
17	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
18	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
19	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
20	DTC Metring with Box, single core L.T. XLPE cable (35 sq.mm., 120 mtr length) and other allied material.	No.	1	7514.00	7514.00
21	Sundries	L.S.	1	810.00	810.00

Cost of material**162556.10**

1	Transportation on material	4.00%	6502
2	T&P on material cost	1.00%	1626
3	Contingencies on material	2.50%	4064
5	Erection cost on material	15.00%	24383
6	Contractor supervision charges on material	5.00%	8128
7	Insurance , Labour & Finance Cost	3.00%	4877
	Service Cost		49580
	Sub-Total		212136
8	Turnkey Charges	5.00%	10607
	Total		222742
8	Turnkey Charges	5.00%	0
	Total		0
8	Contractor profit on services @ 4% i.e. 0.9% of material (C)	0.90%	1463.00

Total Cost (A+B+C)**168895.79**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	282880	222742
Total Cost of the Estimate	282880	222742

POLE MOUNTED DISTRIBUTION TRANSFORMER SUB-STATION 100KVA, 11/0.433 KV ON 9 mtr RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	NO.	3	135.00	405.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 100 KVA with MCCB	No.	1	12822.00	12822.00
10	L.As. 11 KV (Gapless type) with disconnector	Set.	1	1268.00	1268.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	11KV H.G.Fuses	Set.	1	1964.00	1964.00
	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
15	Danger Board in yard.	No.	2	50.00	100.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
17	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
18	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
19	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
20	Sundries	L.S.	1	810.00	810.00
21	DTC Metring with Box, single core L.T. XLPE cable (70 sq.mm., 120 mtr length) and other allied material.	No.	1	7529.20	7529.20

Cost of material**189677.30**

1	Transportation on material	4.00%	7587
2	T&P on material cost	1.00%	1897
3	Contingencies on material	2.50%	4742
5	Erection cost on material	15.00%	28452
6	Contractor supervision charges on material	5.00%	9484
7	Insurance , Labour & Finance Cost	3.00%	5690
	Service Cost		57852
	Sub-Total		247529
8	Turnkey Charges	5.00%	12376

Total**259905**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	330076	259905
Total Cost of the Estimate	330076	259905

Item Code No. 1204

11 KV ,200 KVA Dist. Transformer centers on 100x116mm, 9 mtrs RSJ poles with MCCB Dist box.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist. Transformer 200 KVA, 11/0.43 kv	No.	1	195137.00	195137.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	124	51.80	6423.20
4	M.S.Channel 75x40x6 mm	Kg.	100	51.80	5180.00
5	MS angle 50x50x6 mm	Kg.	86	51.80	4454.80
6	M.S. Flats(50 X 10mm)	Kg.	56	48.50	2716.00
7	11 kv Pin Insulators with G.I. Pins	No.	3	135.00	405.00
8	Disc Insulator 11 KV 45 KN	No.	3	244.00	732.00
9	Strain Hardware for 34 Sq.mm AAAC	No.	3	140.00	420.00
10	L.T.Dist.Boxes 200 KVA with MCCB	No.	1	24768.00	24768.00
11	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	16	57.45	919.20
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	11KV H.G.Fuses	Set	1	1964.00	1964.00
16	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire 'A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	2.3	3027.00	6962.10
21	Painting of Supports & fabricated materials	LS	2	155.00	310.00
22	Sundries	LS	1	810.00	810.00
23	DTC Metring with Box, single core L.T. XLPE cable (185 sq.mm., 200 mtr length) and other allied material.	No.	1	7613.00	7613.00
	Minor Fabrication, etc.				

Cost of material

294150.20

1	Transportation on material	4.00%	11766
2	T&P on material cost	1.00%	2942
3	Contigencies on material	2.50%	7354
5	Erection cost on material	15.00%	44123
6	Contractor supervision charges on material	5.00%	14708
7	Insurance , Labour & Finance Cost	3.00%	8825

Service Cost

89716

Sub-Total

383866

8	Turnkey Charges	5.00%	19193
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Total

403059

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	511880	403059
Total Cost of the Estimate	511880	403059

Item Code No. 1205

Cost data for Pole mounted Distribution Transformer Sub-station 200 KVA, 11/0.433 kv.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist. Transformer 200 KVA, 11/0.43 kv	No.	1	195137.00	195137.00
2	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg.	124	51.80	6423.20
4	M.S.Channel 75x40x6 mm	Kg.	100	51.80	5180.00
5	MS angle 50x50x6 mm	Kg.	86	51.80	4454.80
6	M.S. Flats(50 X 10mm)	Kg.	56	48.50	2716.00
7	11 kV Pin Insulators with G.I. Pins	No.	3	135.00	405.00
8	Disc Insulator 11 KV 45 KN	No.	3	244.00	732.00
9	Strain Hardware for 34 Sq.mm AAAC	No.	3	140.00	420.00
10	L.T.Dist.Boxes 200 KVA with MCCB	No.	1	24768.00	24768.00
11	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	16	57.45	919.20
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	11KV H.G.Fuses	Set	1	1964.00	1964.00
16	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire 'A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	2.3	3027.00	6962.10
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00
23	DTC Metring with Box, single core L.T. XLPE cable (185 sq.mm., 200 mtr length) and other allied material.	No.	1	7613.00	7613.00
	Minor Fabrication, etc.				

Cost of material

298109.20

1	Transportation on material	4.00%	11924
2	T&P on material cost	1.00%	2981
3	Contigencies on material	2.50%	7453
5	Erection cost on material	15.00%	44716
6	Contractor supervision charges on material	5.00%	14905
7	Insurance , Labour & Finance Cost	3.00%	8943

Service Cost

90923

Sub-Total

389033

8	Turnkey Charges	5.00%	19452
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Total

408484

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	518770	408484
Total Cost of the Estimate	518770	408484

Cost data for Pole mounted Distribution Transformer Sub-station 315 KVA, 11/0.433 kv.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist. Transformer 315 KVA, 11/0.43 kv	No.	1	433900.00	433900.00
2	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg.	124	51.80	6423.20
4	M.S.Channel 75x40x6 mm	Kg.	100	51.80	5180.00
5	MS angle 50x50x6 mm	Kg.	86	51.80	4454.80
6	M.S. Flats(50 X 10mm)	Kg.	56	48.50	2716.00
7	11 kV Pin Insulators with G.I. Pins	No.	3	135.00	405.00
8	Disc Insulator 11 KV 45 KN	No.	3	244.00	732.00
9	Strain Hardware for 34 Sq.mm AAAC	No.	3	140.00	420.00
10	6 way feeder pillar with ACB	No.	1	61963.00	61963.00
11	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	16	57.45	919.20
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	11KV H.G.Fuses	Set	1	1964.00	1964.00
16	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire 'A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	2.3	3027.00	6962.10
21	Painting of Supports & fabricated materials	LS	2	155.00	310.00
22	Sundries	LS	1	810.00	810.00
23	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 280 mtr length) and other allied material.	No.	1	7676.00	7676.00
	Minor Fabrication, etc.				

Cost of material**574285.20**

1	Transportation on material	4.00%	22971
2	T&P on material cost	1.00%	5743
3	Contigencies on material	2.50%	14357
5	Erection cost on material	15.00%	86143
6	Contractor supervision charges on material	5.00%	28714
7	Insurance , Labour & Finance Cost	3.00%	17229

Service Cost**175157****Sub-Total****749442**

8	Turnkey Charges	5.00%	37472
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Total**786914**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	999371	786914
Total Cost of the Estimate	999371	786914

Cost data for Pole mounted Distribution Transformer Sub-station 315 KVA, 11/0.433 kv.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist. Transformer 315 KVA, 11/0.43 kv	No.	1	433900.00	433900.00
2	RSJ 116x100, 11 m long	No.	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg.	124	51.80	6423.20
4	M.S.Channel 75x40x6 mm	Kg.	100	51.80	5180.00
5	MS angle 50x50x6 mm	Kg.	86	51.80	4454.80
6	M.S. Flats(50 X 10mm)	Kg.	56	48.50	2716.00
7	11 kV Pin Insulators with G.I. Pins	No.	3	135.00	405.00
8	Disc Insulator 11 KV 45 KN	No.	3	244.00	732.00
9	Strain Hardware for 34 Sq.mm AAAC	No.	3	140.00	420.00
10	6 way feeder pillar with ACB	No.	1	61963.00	61963.00
11	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	16	57.45	919.20
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	11KV H.G.Fuses	Set	1	1964.00	1964.00
16	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire 'A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	2.3	3027.00	6962.10
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00
23	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 280 mtr length) and other allied material.	No.	1	7676.00	7676.00
	Minor Fabrication, etc.				

Cost of material**574130.20**

1	Transportation on material	4.00%	22965
2	T&P on material cost	1.00%	5741
3	Contigencies on material	2.50%	14353
5	Erection cost on material	15.00%	86120
6	Contractor supervision charges on material	5.00%	28707
7	Insurance , Labour & Finance Cost	3.00%	17224

Service Cost**175110****Sub-Total****749240**

8	Turnkey Charges	5.00%	37462
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Total**786702**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	999101	786702
Total Cost of the Estimate	999101	786702

Item Code No. 1208

Cost data for Plinth mounted Distribution Transformer Sub-station 630 KVA, 11/0.433 kv.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist. Transformer 630 KVA, 11/0.43 kv	No.	1	619767.00	619767.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	180	51.80	9324.00
4	M.S.Channel 75x40x6 mm	Kg.	150	51.80	7770.00
5	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
6	M.S. Flats(50 X 10mm)	Kg.	75	48.50	3637.50
7	11 kV Pin Insulators with G.I. Pins	No.	3	135.00	405.00
8	Disc Insulator 11 KV 45 KN	No.	6	244.00	1464.00
9	Strain Hardware for 34 Sq.mm AAAC	No.	3	140.00	420.00
10	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
11	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	24	57.45	1378.80
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	11KV H.G.Fuses	Set	1	1964.00	1964.00
	11KV A.B. Switch, 400 A	No	1	9240.00	9240.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire `A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	10.25	3027.00	31026.75
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00
23	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 630 KVA	No.	1	8076.00	8076.00

Cost of material

790903.95

1	Transportation on material	4.00%	31636
2	T&P on material cost	1.00%	7909
3	Contigencies on material	2.50%	19773
5	Erection cost on material	15.00%	118636
6	Contractor supervision charges on material	5.00%	39545
7	Insurance , Labour & Finance Cost	3.00%	23727

Service Cost

241226

Sub-Total

1032130

8	Turnkey Charges	5.00%	51606
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Total

1083736

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1376331	1083736
Total Cost of the Estimate	1376331	1083736

Item Code No. 1212

11 KV ,63 KVA Dist. Transformer centers on 9 mtrs 100 X 116 mm RSJ poles with Kit-kat Dist box.

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	Dist. transformer 63kva, 11/.4kv	No.	1	86216.00	86216.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	NO.	3	135.00	405.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 25/63 KVA with KITKAT	No.	1	10800.00	10800.00
10	L.As. 11 KV (Gapless type) with disconnector	Set.	1	1268.00	1268.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	11KV H.G.Fuses	Set.	1	1964.00	1964.00
	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
15	Danger Board in yard.	No.	2	50.00	100.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
17	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
18	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
19	Painting/Hardware & support with numbering of pole	L.S.	2	225.00	450.00
20	Sundries	L.S.	1	810.00	810.00
21	DTC Metring with Box, single core L.T. XLPE cable (35 sq.mm., 120 mtr length) and other allied material.	No.	1	7514.00	7514.00

Cost of material

161311.10

1	Transportation on material	4.00%	6452
2	T&P on material cost	1.00%	1613
3	Contingencies on material	2.50%	4033
5	Erection cost on material	15.00%	24197
6	Contractor supervision charges on material	5.00%	8066
7	Insurance , Labour & Finance Cost	3.00%	4839
	Service Cost		49200
	Sub-Total		210511
8	Turnkey Charges	5.00%	10526

Total

221037

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	280714	221037
Total Cost of the Estimate	280714	221037

Item Code No. 1213

11 KV ,100 KVA Dist. Transformer centers on 9 mtrs 100 X 116 mm RSJ poles with Kit-kat Dist box.

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	NO.	3	135.00	405.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 100 KVA with KITKAT	No.	1	11834.00	11834.00
10	L.As. 11 KV (Gapless type) with disconnector	Set.	1	1268.00	1268.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	11KV H.G.Fuses	Set.	1	1964.00	1964.00
	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
15	Danger Board in yard.	No.	2	50.00	100.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
17	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
18	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
19	Painting/Hardware & support with numbering of pole	L.S.	2	225.00	450.00
20	Sundries	L.S.	1	810.00	810.00
21	DTC Metring with Box, single core L.T. XLPE cable (70 sq.mm., 120 mtr length) and other allied material.	No.	1	7529.20	7529.20

Cost of material

188914.30

1	Transportation on material	4.00%	7557
2	T&P on material cost	1.00%	1889
3	Contingencies on material	2.50%	4723
5	Erection cost on material	15.00%	28337
6	Contractor supervision charges on material	5.00%	9446
7	Insurance , Labour & Finance Cost	3.00%	5667
	Service Cost		57619
	Sub-Total		246533
8	Turnkey Charges	5.00%	12327

Total

258860

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	328749	258860
Total Cost of the Estimate	328749	258860

Cost data for Pole mounted Distribution Transformer Sub-station 315 KVA, 11/0.433 kv.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	Dist. Transformer 315 KVA, 11/0.43 kv	No.	1	433900.00	433900.00
2	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
3	G.I.Channel 100x50x6mm	Kg.	124	70.08	8689.92
4	G.I.Channel 75x40x6mm	Kg.	100	70.08	7008.00
5	G.I.Angle 50x50x6mm	Kg.	86	70.08	6026.88
6	G.I Flat 50x10 mm	Kg.	56	66.78	3739.68
7	11 kV Pin Insulators with G.I. Pins	No.	3	135.00	405.00
8	Disc Insulator 11 KV 45 KN	No.	3	244.00	732.00
9	Strain Hardware forWeasel/Squirrel	No.	3	179.00	537.00
10	6 way feeder pillar with ACB	No.	1	61963.00	61963.00
11	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
12	H.T.Stay Set	No.	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	16	57.45	919.20
14	Earthing Sets H.T	No.	5	342.00	1710.00
15	11KV H.G.Fuses	Set	1	1964.00	1964.00
16	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
17	Danger Board in yard.	No.	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
19	G.I.Barbed Wire `A' type.	Kg.	10	64.27	642.70
20	Concreting ration 1:3:6	Cmt.	2.3	3027.00	6962.10
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00
23	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 280 mtr length) and other allied material.	No.	1	7676.00	7676.00

Cost of Material**576823.68**

1	Transportation on material	4.00%	23073
2	T&P on material cost	1.00%	5768
3	Contigencies on material	2.50%	14421
5	Erection cost on material	15.00%	86524
6	Contractor supervision charges on material	5.00%	28841
7	Insurance , Labour & Finance Cost	3.00%	17305

Service Cost**175931****Sub-Total****752755**

8	Turnkey Charges	5.00%	37638
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Total**790393**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1003789	790393
Total Cost of the Estimate	1003789	790393

POLE MOUNTED DISTRIBUTION TRANSFORMER SUB-STATION 63KVA, 11/0.433 KV ON 11 mtr RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	Dist. transformer 63kva, 11/.4kv	No.	1	86216.00	86216.00
2	RSJ 116x100, 11 m long	No	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	NO.	3	135.00	405.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 25/63 KVA with MCCB	No.	1	12270.00	12270.00
10	L.As. 11 KV (Gapless type) with disconnector	Set.	1	1268.00	1268.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	11KV H.G.Fuses	Set.	1	1964.00	1964.00
	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
15	Danger Board in yard.	No.	2	50.00	100.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
17	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
18	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
19	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
20	DTC Metring with Box, single core L.T. XLPE cable (35 sq.mm., 120 mtr length) and other allied material.	No.	1	7514.00	7514.00
21	Sundries	L.S.	1	810.00	810.00

Cost of material**166670.10**

1	Transportation on material	4.00%	6667
2	T&P on material cost	1.00%	1667
3	Contingencies on material	2.50%	4167
5	Erection cost on material	15.00%	25001
6	Contractor supervision charges on material	5.00%	8334
7	Insurance , Labour & Finance Cost	3.00%	5000
	Service Cost		50834
	Sub-Total		217504
8	Turnkey Charges	5.00%	10875

Total**228380**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	290039	228380
Total Cost of the Estimate	290039	228380

POLE MOUNTED DISTRIBUTION TRANSFORMER SUB-STATION 100KVA, 11/0.433 KV ON 11 mtr RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
2	RSJ 116x100, 11 m long	No	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	NO.	3	135.00	405.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 100 KVA with MCCB	No.	1	12822.00	12822.00
10	L.As. 11 KV (Gapless type) with disconnector	Set.	1	1268.00	1268.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	11KV H.G.Fuses	Set.	1	1964.00	1964.00
	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
15	Danger Board in yard.	No.	2	50.00	100.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
17	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
18	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
19	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
20	Sundries	L.S.	1	810.00	810.00
21	DTC Metring with Box, single core L.T. XLPE cable (70 sq.mm., 120 mtr length) and other allied material.	No.	1	7529.20	7529.20

Cost of material**193791.30**

1	Transportation on material	4.00%	7752
2	T&P on material cost	1.00%	1938
3	Contingencies on material	2.50%	4845
5	Erection cost on material	15.00%	29069
6	Contractor supervision charges on material	5.00%	9690
7	Insurance , Labour & Finance Cost	3.00%	5814
	Service Cost		59106
	Sub-Total		252898
8	Turnkey Charges	5.00%	12645

Total**265543**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	337236	265543
Total Cost of the Estimate	337236	265543

Sr.No	Description	Unit	Qty.	Rate	Amount
1	11 / .433 KV 25 KVA Transformer	No	1	47113.00	47113.00
2	RSJ 116x100, 11 m long	No	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg	80	51.80	4144.00
5	MS angle 50x50x6 mm	Kg	60	51.80	3108.00
6	M.S. Flats(50 X 10mm)	Kg	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	No	3	135.00	405.00
8	Disc Insulator 11 KV 45 KN	No	3	244.00	732.00
9	Strain Hardware forWeasel/Squirrel	Set	3	179.00	537.00
10	L.T.Dist.Boxes 25/63 KVA with MCCB	No	1	12270.00	12270.00
11	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
12	H.T.Stay Set	Set	2	598.00	1196.00
13	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	16	57.45	919.20
14	Earthing Sets H.T	Set	5	342.00	1710.00
15	11KV H.G.Fuses	Set	1	1964.00	1964.00
16	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
17	Danger Board in yard.	No	2	50.00	100.00
18	G.I.Strip (25 X 3 mm)	Kg	40	66.78	2671.20
19	G.I.Barbed Wire `A' type.	Kg.	10	64.27	642.70
20	DTC Metring with Box, single core L.T. XLPE cable (16 sq.mm., 120 mtr length) and other allied material.	No	1	7514.00	7514.00
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00

Cost of material**125465.10**

1	Transportation on material	4.00%	5019
2	T&P on material cost	1.00%	1255
3	Contingencies on material	2.50%	3137
5	Erection cost on material	15.00%	18820
6	Contractor supervision charges on material	5.00%	6273
7	Insurance , Labour & Finance Cost	3.00%	3764
	Service Cost		38267
	Sub-Total		163732
8	Turnkey Charges	5.00%	8187

Total**171919**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	218334	171919
Total Cost of the Estimate	218334	171919

Item Code No. 1218

11/0.4 KV ,25 KVA Dist. Transformer centers on RSJ , 100 X 116 mm, 9 mtr with Kitkat Dist box.

Sr.No	Description	Unit	Qty.	Rate	Amount
1	11 / .433 KV 25 KVA Transformer	No	1	47113.00	47113.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg	44	51.80	2279.20
5	MS angle 50x50x6 mm	Kg	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	No	3	135.00	405.00
8	L.T.Dist.Boxes 25/63 KVA with KITKAT	No	1	10800.00	10800.00
9	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
10	H.T.Stay Set	Set	4	598.00	2392.00
11	Earthing Sets H.T	Set	5	342.00	1710.00
12	11KV H.G.Fuses	Set	1	1964.00	1964.00
13	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
14	Danger Board in yard.	No	2	50.00	100.00
15	Painting/Hardware & support with numbering of pole	LS	1	225.00	225.00
16	DTC Metring with Box, single core L.T. XLPE cable (16 sq.mm., 120 mtr length) and other allied material.	No	1	7514.00	7514.00
17	Sundries	LS	1	810.00	810.00

Cost of Material

111811.80

1	Transportation on material	4.00%	4472
2	T&P on material cost	1.00%	1118
3	Contingencies on material	2.50%	2795
5	Erection cost on material	15.00%	16772
6	Contractor supervision charges on material	5.00%	5591
7	Insurance , Labour & Finance Cost	3.00%	3354

Service Cost

34103

Sub-Total

145914

8	Turnkey Charges	5.00%	7296
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Total

153210

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	194575	153210
Total Cost of the Estimate	194575	153210

Sr.No	Description	Unit	Qty.	Rate	Amount
1	Dist. transformer 63kva, 11/.4kv	No	1	86216.00	86216.00
2	RSJ 116x100, 11 m long	No	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg	44	51.80	2279.20
5	MS angle 50x50x6 mm	Kg	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	No	3	135.00	405.00
8	L.T.Dist.Boxes 100 KVA with KITKAT	No	1	11834.00	11834.00
9	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
10	H.T.Stay Set	Set	4	598.00	2392.00
11	Earthing Sets H.T	Set	5	342.00	1710.00
12	11KV H.G.Fuses	Set	1	1964.00	1964.00
13	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
14	Danger Board in yard.	No	2	50.00	100.00
15	Painting/Hardware & support with numbering of pole	LS	1	225.00	225.00
16	DTC Metring with Box, single core L.T. XLPE cable (35 sq.mm., 120 mtr length) and other allied material.	No	1	7514.00	7514.00
17	Sundries	LS	1	810.00	810.00
	Cost of Material				156062.80

1	Transportation on material	4.00%	6243
2	T&P on material cost	1.00%	1561
3	Contingencies on material	2.50%	3902
5	Erection cost on material	15.00%	23409
6	Contractor supervision charges on material	5.00%	7803
7	Insurance , Labour & Finance Cost	3.00%	4682
	Service Cost		47599
	Sub-Total		203662
8	Turnkey Charges	5.00%	10183

Total

213845

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	271580	213845
Total Cost of the Estimate	271580	213845

Item Code No. 1220

11/0.4 KV ,100 KVA Dist. Transformer centers on RSJ , 100 X 116 mm, 11 mtr with Kitkat Dist box.

Sr.No	Description	Unit	Qty.	Rate	Amount
1	Dist. Transformer 100 KVA, 11/0.43 kv	No	1	112770.00	112770.00
2	RSJ 116x100, 11 m long	No	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	Kg	44	51.80	2279.20
5	MS angle 50x50x6 mm	Kg	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	No	3	135.00	405.00
8	L.T.Dist.Boxes 100 KVA with KITKAT	No	1	11834.00	11834.00
9	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
10	H.T.Stay Set	Set	4	598.00	2392.00
11	Earthing Sets H.T	Set	5	342.00	1710.00
12	11KV H.G.Fuses	Set	1	1964.00	1964.00
13	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
14	Danger Board in yard.	No	2	50.00	100.00
15	Painting/Hardware & support with numbering of pole	LS	1	225.00	225.00
16	DTC Metring with Box, single core L.T. XLPE cable (70 sq.mm., 120 mtr length) and other allied material.	No	1	7529.20	7529.20
17	Sundries	LS	1	810.00	810.00
	Cost of Material				182632.00

1	Transportation on material	4.00%	7305
2	T&P on material cost	1.00%	1826
3	Contingencies on material	2.50%	4566
5	Erection cost on material	15.00%	27395
6	Contractor supervision charges on material	5.00%	9132
7	Insurance , Labour & Finance Cost	3.00%	5479
	Service Cost		55703
	Sub-Total		238335
8	Turnkey Charges	5.00%	11917

Total

250251

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	317816	250251
Total Cost of the Estimate	317816	250251

Item Code No. 1221

Cost Data for 11/0.44 DTC new 1 X 630 KVA, Indoor type DTC with RMU

Sr.No	Particulars	Unit	Qty	Rate	Amount
1	Dist. Transformer 630 KVA, 11/0.43 kv	No.	1	619767.00	619767.00
2	11 kv SF6, Motorized, SCADA Compatible RMU 2 Iso + 1 Br	No.	1	349751.00	349751.00
3	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	15	592.00	8880.00
4	11 kv heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No.	2	1169.00	2338.00
5	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
6	Earthing with GI pipe	L.S.	4	291.00	1164.00
7	Earthing with GI plate	L.S.	4	1698.00	6792.00
8	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 630 KVA	No.	1	8076.00	8076.00
9	Sundries	L.S.	1	810.00	810.00
Cost of Material					1061768.00

1	Transportation on material	4.00%	42471
2	T&P on material cost	1.00%	10618
3	Contingencies on material	2.50%	26544
5	Erection cost on material	15.00%	159265
6	Contractor supervision charges on material	5.00%	53088
7	Insurance , Labour & Finance Cost	3.00%	31853
Service Cost			323839
Sub-Total			1385607
8	Turnkey Charges	5.00%	69280
Total			1454888

9	Civil Works 20 Sq. Mtr	LS	1	284608.13	284608
Total Cost of Estimate					1739496

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1847689	1454888
Civil Works 20 Sq. Mtr	284608	284608
Total Cost of the Estimate	2132297	1739496

Item Code No. 1222

Cost Data for 11/0.44 DTC new 2 X 630 KVA, Indoor type DTC with RMU

Sr.No	Particulars	Unit	Qty	Rate	Amount
1	Dist. Transformer 630 KVA, 11/0.43 kv	No.	2	619767.00	1239534.00
2	11 kv SF6, Motorized, SCADA Compatible RMU 2 Iso + 1 Br	No.	1	349751.00	349751.00
3	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	30	592.00	17760.00
4	11 kv heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No.	4	1169.00	4676.00
5	8 way feeder pillar with ACB	No.	2	64190.00	128380.00
6	Earthing with GI pipe	L.S.	8	291.00	2328.00
7	Earthing with GI plate	L.S.	8	1698.00	13584.00
8	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 630 KVA	No.	2	8076.00	16152.00
9	Sundries	L.S.	2	810.00	1620.00
Cost of Material					1773785.00

1	Transportation on material	4.00%	70951
2	T&P on material cost	1.00%	17738
3	Contigencies on material	2.50%	44345
5	Erection cost on material	15.00%	266068
6	Contractor supervision charges on material	5.00%	88689
7	Insurance , Labour & Finance Cost	3.00%	53214
Service Cost			541004
Sub-Total			2314789
8	Turnkey Charges	5.00%	115739
Total			2430529

9	Civil Works 20 Sq. Mtr	LS	2	284608.13	569216
Total Cost of Estimate					2999745

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3086741	2430529
Civil Works 20 Sq. Mtr	569216	569216
Total Cost of the Estimate	3655957	2999745

Cost Data for 11/0.44 DTC Additional 1 X 630 KVA, Indoor type DTC with RMU without room

Sr.No	Particulars	Unit	Qty	Rate	Amount
1	Dist. Transformer 630 KVA, 11/0.43 kv	No.	1	619767.00	619767.00
2	11 kV SF6, Motorized, SCADA Compatible RMU 2 Iso + 1 Br	No.	1	349751.00	349751.00
3	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	15	592.00	8880.00
4	11 kV heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No.	2	1169.00	2338.00
5	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
6	Earthing with GI pipe	L.S.	4	291.00	1164.00
7	Earthing with GI plate	L.S.	4	1698.00	6792.00
8	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 630 KVA	No.	1	8076.00	8076.00
9	Sundries	L.S.	1	810.00	810.00

Cost of Material**1061768.00**

1	Transportation on material	4.00%	42471
2	T&P on material cost	1.00%	10618
3	Contigencies on material	2.50%	26544
5	Erection cost on material	15.00%	159265
6	Contractor supervision charges on material	5.00%	53088
7	Insurance , Labour & Finance Cost	3.00%	31853

Service Cost**323839****Sub-Total****1385607**

8	Turnkey Charges	5.00%	69280
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Total**1454888**

9	Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	L.S.	1	23907.23	23907
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Total Cost of Estimate**1478795**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1847689	1454888
Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	23907	23907
Total Cost of the Estimate	1871596	1478795

Item Code No. 1224

Cost Data for 11/0.44 DTC Additional 2 X 630 KVA, Indoor type DTC with RMU without room

Sr.No	Particulars	Unit	Qty	Rate	Amount
1	Dist. Transformer 630 KVA, 11/0.43 kv	No.	2	619767.00	1239534.00
2	11 kv SF6, Motorized, SCADA Compatible RMU 2 Iso + 2 Br	No.	1	492900.00	492900.00
3	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	30	592.00	17760.00
4	11 kv heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No.	4	1169.00	4676.00
5	8 way feeder pillar with ACB	No.	2	64190.00	128380.00
6	Earthing with GI pipe	L.S.	8	291.00	2328.00
7	Earthing with GI plate	L.S.	8	1698.00	13584.00
8	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 630 KVA	No.	2	8076.00	16152.00
9	Sundries	L.S.	2	810.00	1620.00

Cost of Material **1916934.00**

1	Transportation on material	4.00%	76677
2	T&P on material cost	1.00%	19169
3	Contigencies on material	2.50%	47923
5	Erection cost on material	15.00%	287540
6	Contractor supervision charges on material	5.00%	95847
7	Insurance , Labour & Finance Cost	3.00%	57508

Service Cost **584665**

Sub-Total **2501599**

8	Turnkey Charges	5.00%	125080
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Total **2626679**

9	Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	L.S.	2	23907.23	47814
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Total Cost of Estimate **2674493**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3335849	2626679
Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	47814	47814
Total Cost of the Estimate	3383663	2674493

Cost Data for 11/0.44 DTC Additional 1 X 315 KVA, Indoor type DTC with RMU without room

Sr.No	Particulars	Unit	Qty	Rate	Amount
1	Dist. Transformer 315 KVA, 11/0.43 kv	No.	1	433900.00	433900.00
2	11 kv SF6, Motorized, SCADA Compatible RMU 2 Iso + 1 Br	No.	1	349751.00	349751.00
3	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	15	592.00	8880.00
4	11 kv heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No.	2	1169.00	2338.00
5	6 way feeder pillar with ACB	No.	1	61963.00	61963.00
6	Earthing with GI pipe	L.S.	4	291.00	1164.00
7	Earthing with GI plate	L.S.	4	1698.00	6792.00
8	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 280 mtr length) and other allied material.	No.	1	7676.00	7676.00
9	Sundries	L.S.	1	810.00	810.00

Cost of Material**873274.00**

1	Transportation on material	4.00%	34931
2	T&P on material cost	1.00%	8733
3	Contigencies on material	2.50%	21832
5	Erection cost on material	15.00%	130991
6	Contractor supervision charges on material	5.00%	43664
7	Insurance , Labour & Finance Cost	3.00%	26198
	Service Cost		266349
	Sub-Total		1139623
8	Turnkey Charges	5.00%	56981

Total**1196604**

9	Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	L.S.	2	23907.23	47814
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Total Cost of Estimate**1244418**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1519671	1196604
Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	47814	47814
Total Cost of the Estimate	1567486	1244418

Cost Data for 11/0.44 DTC Additional 2 X 315 KVA, Indoor type DTC with RMU without room

Sr.No	Particulars	Unit	Qty	Rate	Amount
1	Dist. Transformer 315 KVA, 11/0.43 kv	No.	2	433900.00	867800.00
2	11 kv SF6, Motorized, SCADA Compatible RMU 2 Iso + 2 Br	No.	1	492900.00	492900.00
3	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	30	592.00	17760.00
4	11 kv heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No.	4	1169.00	4676.00
5	6 way feeder pillar with ACB	No.	2	61963.00	123926.00
6	Earthing with GI pipe	L.S.	8	291.00	2328.00
7	Earthing with GI plate	L.S.	8	1698.00	13584.00
8	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 280 mtr length) and other allied material.	No.	2	7676.00	15352.00
9	Sundries	L.S.	2	810.00	1620.00

Cost of Material**1539946.00**

1	Transportation on material	4.00%	61598
2	T&P on material cost	1.00%	15399
3	Contigencies on material	2.50%	38499
5	Erection cost on material	15.00%	230992
6	Contractor supervision charges on material	5.00%	76997
7	Insurance , Labour & Finance Cost	3.00%	46198

Service Cost**469684****Sub-Total****2009630**

8	Turnkey Charges	5.00%	100481
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Total**2110111**

9	Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	L.S.	2	23907.23	47814
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Total Cost of Estimate**2157925**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	2679814	2110111
Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	47814	47814
Total Cost of the Estimate	2727628	2157925

Cost Data for 11/0.44 DTC new 315 KVA, Indoor type DTC with RMU

Sr.No	Particulars	Unit	Qty	Rate	Amount
1	Dist. Transformer 315 KVA, 11/0.43 kv	No.	1	433900.00	433900.00
2	11 kv SF6, Motorized, SCADA Compatible RMU 2 Iso + 1 Br	No.	1	349751.00	349751.00
3	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	15	592.00	8880.00
4	11 kv heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No.	2	1169.00	2338.00
5	6 way feeder pillar with ACB	No.	1	61963.00	61963.00
6	Earthing with GI pipe	L.S.	4	291.00	1164.00
7	Earthing with GI plate	L.S.	4	1698.00	6792.00
8	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 280 mtr length) and other allied material.	L.S.	1 Set	7676.00	7676.00
9	Sundries	L.S.	1	810.00	810.00

Cost of Material**873274.00**

1	Transportation on material	4.00%	34931
2	T&P on material cost	1.00%	8733
3	Contigencies on material	2.50%	21832
5	Erection cost on material	15.00%	130991
6	Contractor supervision charges on material	5.00%	43664
7	Insurance , Labour & Finance Cost	3.00%	26198
	Service Cost		266349
	Sub-Total		1139623
8	Turnkey Charges	5.00%	56981

Total**1196604**

9	Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	L.S.	1	23907.23	23907
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Total Cost of Estimate**1220511**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1519671	1196604
Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	23907	23907
Total Cost of the Estimate	1543579	1220511

Cost Data for 11/0.44 DTC new 630 KVA, Indoor type DTC with RMU

Sr.No	Particulars	Unit	Qty	Rate	Amount
1	Dist. Transformer 630 KVA, 11/0.43 kv	No.	1	619767.00	619767.00
2	11 kV SF6, Motorized, SCADA Compatible RMU 2 Iso + 1 Br	No.	1	349751.00	349751.00
3	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	15	592.00	8880.00
4	11 kV heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No.	2	1169.00	2338.00
5	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
6	Earthing with GI pipe	L.S.	4	291.00	1164.00
7	Earthing with GI plate	L.S.	4	1698.00	6792.00
8	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 630 KVA	L.S.	1 Set	8076.00	8076.00
9	Sundries	L.S.	1	810.00	810.00

Cost of Material**1061768.00**

1	Transportation on material	4.00%	42471
2	T&P on material cost	1.00%	10618
3	Contigencies on material	2.50%	26544
5	Erection cost on material	15.00%	159265
6	Contractor supervision charges on material	5.00%	53088
7	Insurance , Labour & Finance Cost	3.00%	31853

Service Cost**323839****Sub-Total****1385607**

8	Turnkey Charges	5.00%	69280
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Total**1454888**

9	Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	L.S.	1	23907.23	23907
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Total Cost of Estimate**1478795**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1847689	1454888
Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	23907	23907
Total Cost of the Estimate	1871596	1478795

Cost Data for 11/0.44 DTC new 995 KVA, Indoor type DTC with RMU

Sr.No	Particulars	Unit	Qty	Rate	Amount
1	Dist. Transformer 995 KVA, 11/0.4 kv	No.	1	869654.00	869654.00
2	11 kv SF6, Motorized, SCADA Compatible RMU 2 Iso + 1 Br	No.	1	349751.00	349751.00
3	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	15	592.00	8880.00
4	11 kv heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No.	2	1169.00	2338.00
5	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
6	Earthing with GI pipe	L.S.	4	291.00	1164.00
7	Earthing with GI plate	L.S.	4	1698.00	6792.00
8	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 995 KVA	L.S.	1 Set	8476.00	8476.00
9	Sundries	L.S.	1	810.00	810.00

Cost of Material**1312055.00**

1	Transportation on material	4.00%	52482
2	T&P on material cost	1.00%	13121
3	Contigencies on material	2.50%	32801
5	Erection cost on material	15.00%	196808
6	Contractor supervision charges on material	5.00%	65603
7	Insurance , Labour & Finance Cost	3.00%	39362

Service Cost**400177****Sub-Total****1712232**

8	Turnkey Charges	5.00%	85612
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Total**1797843**

9	Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	L.S.	1	23907.23	23907
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Total Cost of Estimate**1821751**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	2283238	1797843
Civil Works - Foundation Structure for Feeder Pillar, RMU & Transformer	23907	23907
Total Cost of the Estimate	2307145	1821751

Sr.No	Description of Material	Unit	Qty.	RT/UNIT(RS)	Amount (Rs.)
1	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
2	L.T.Dist.Boxes 100 KVA with MCCB	No.	1	12822.00	12822.00
3	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt	25	204.00	5100.00
4	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	10	329.00	3290.00
5	Sundries	no	1	810.00	810.00

Cost of material**134792.00**

1	Transportation on material	4.00%	5392
2	T&P on material cost	1.00%	1348
3	Contigencies on material	2.50%	3370
5	Erection cost on material	15.00%	20219
6	Contractor supervision charges on material	5.00%	6740
7	Insurance , Labour & Finance Cost	3.00%	4044
Service Cost			41112
Sub-Total			175904
8	Turnkey Charges	5.00%	8795

Total**184699**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	234565	184699
Total Cost of the Estimate	234565	184699

Sr.No	Description of Material	Unit	Qty.	RT/UNIT(RS)	Amount (Rs.)
1	Dist. Transformer 200 KVA, 11/0.43 kv	No.	1.00	195137.00	195137.00
2	L.T.Dist.Boxes 200 KVA with MCCB	No.	1.000	24768.00	24768.00
3	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	25.00	329.00	8225.00
4	L.T. XLPE cable 3.5 Core 240 mm2	Rmt	10.00	628.00	6280.00
5	Sundries	no	1.00	810.00	810.00

Cost of material**235220.00**

1	Transportation on material	4.00%	9409
2	T&P on material cost	1.00%	2352
3	Contigencies on material	2.50%	5881
5	Erection cost on material	15.00%	35283
6	Contractor supervision charges on material	5.00%	11761
7	Insurance , Labour & Finance Cost	3.00%	7057
	Service Cost		71742
	Sub-Total		306962
8	Turnkey Charges	5.00%	15348

Total**322310**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	409330	322310
Total Cost of the Estimate	409330	322310

Cost Data for Augmentation of Distribution Transformer Sub-station 11/0.433 kv, 100 KVA to 11/0.433 kv, 315 KVA - Indoor

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 315 KVA, 11/0.43 kv	No.	1	433900.00	433900.00
2	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
3	L.T. XLPE cable 3.5 Core 300 mm2	Rmt	45	725.00	32625.00
4	Sundries	LS	1	810.00	810.00

Cost of Material**531525.00**

1	Transportation on material	4.00%	21261
2	T&P on material cost	1.00%	5315
3	Contigencies on material	2.50%	13288
5	Erection cost on material	15.00%	79729
6	Contractor supervision charges on material	5.00%	26576
7	Insurance , Labour & Finance Cost	3.00%	15946

Service Cost**162115****Sub-Total****693640**

8	Turnkey Charges	5.00%	34682
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Total**728322**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	924960	728322
Total Cost of the Estimate	924960	728322

Cost Data for Augmentation of Distribution Transformer Sub-station 11/0.433 kv, 200 KVA to 11/0.433 kv, 315 KVA - Indoor

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 315 KVA, 11/0.43 kv	No.	1	433900.00	433900.00
2	6 way feeder pillar with ACB	No.	1	61963.00	61963.00
3	L.T. XLPE cable 3.5 Core 300 mm2	Rmt	45	725.00	32625.00
4	Sundries	LS	1	810.00	810.00

Cost of Material**529298.00**

1	Transportation on material	4.00%	21172
2	T&P on material cost	1.00%	5293
3	Contigencies on material	2.50%	13232
5	Erection cost on material	15.00%	79395
6	Contractor supervision charges on material	5.00%	26465
7	Insurance , Labour & Finance Cost	3.00%	15879

Service Cost**161436****Sub-Total****690734**

8	Turnkey Charges	5.00%	34537
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Total**725271**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	921084	725271
Total Cost of the Estimate	921084	725271

Cost Data for Augumentation of Pole mounted Distribution Transformer Sub-station 11/0.433 kv, 200 KVA to

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 630 KVA, 11/0.43 kv	No.	1	619767.00	619767.00
2	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
3	L.T. XLPE cable 3.5 Core 300 mm2	Rmt	45	725.00	32625.00
4	Sundries	LS	1	810.00	810.00

Cost of Material**717392.00**

1	Transportation on material	4.00%			28696
2	T&P on material cost	1.00%			7174
3	Contigencies on material	2.50%			17935
5	Erection cost on material	15.00%			107609
6	Contractor supervision charges on material	5.00%			35870
7	Insurance , Labour & Finance Cost	3.00%			21522

Service Cost**218805****Sub-Total****936197**

8	Turnkey Charges	5.00%			46810
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Total**983006**

9	Concreting ration 1:3:6		10.25	3027.00	31027
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Total Cost of Estimate**1014033**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1248406	983006
Concreting ration 1:3:6	31027	31027
Total Cost of the Estimate	1279432	1014033

Cost Data for Augumentation of Pole mounted Distribution Transformer Sub-station 11/0.433 kv, 315 KVA to

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 630 KVA, 11/0.43 kv	No.	1	619767.00	619767.00
2	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
3	L.T. XLPE cable 3.5 Core 300 mm2	Rmt	45	725.00	32625.00
4	Sundries	LS	1	810.00	810.00

Cost of Material**717392.00**

1	Transportation on material	4.00%	28696
2	T&P on material cost	1.00%	7174
3	Contigencies on material	2.50%	17935
5	Erection cost on material	15.00%	107609
6	Contractor supervision charges on material	5.00%	35870
7	Insurance , Labour & Finance Cost	3.00%	21522

Service Cost**218805****Sub-Total****936197**

8	Turnkey Charges	5.00%	46810
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Total**983006**

9	Concreting ration 1:3:6	10.25	3027.00	31027
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Total Cost of Estimate**1014033**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1248406	983006
Concreting ration 1:3:6	31027	31027
Total Cost of the Estimate	1279432	1014033

Cost Data for Augumentation of existing DTC to 11/0.433 KV 100 KVA with rural KITKAT DB

Sr. No.	Description of Material	Unit	QTY	Rate/Unit	Rs.	Amount	Rs.
1	Dist. Transformer 100 KVA, 11/0.43 kv	No	1	112770.00		112770.00	
2	L.T.Dist.Boxes 100 KVA with KITKAT	No	1	11834.00		11834.00	
3	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00		1268.00	
4	11KV A.B. Switch, 400 A	Set	1	9240.00		9240.00	
5	Danger Board in yard.	No	2	50.00		100.00	
6	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40		1435.00	
7	G.I.Barbed Wire `A' type.	Kg.	150	64.27		9640.50	
8	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt	25	204.00		5100.00	
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	10	329.00		3290.00	
10	Painting/Hardware & support with numbering of pole	No	1	225.00		225.00	
11	Sundries	LS	1	810.00		810.00	

Cost of material**155712.50**

1	Transportation on material	4.00%	6229
2	T&P on material cost	1.00%	1557
3	Contigencies on material	2.50%	3893
5	Erection cost on material	15.00%	23357
6	Contractor supervision charges on material	5.00%	7786
7	Insurance , Labour & Finance Cost	3.00%	4671

Service Cost**47492****Sub-Total****203205**

8	Turnkey Charges	5.00%	10160
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Total**213365**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	270971	213365
Total Cost of the Estimate	270971	213365

Cost Data for Augumentation of existing DTC to 11/0.433 KV 200 KVA with rural KITKAT DB

Sr. No.	Description of Material	Unit	QTY	Rate/Unit	Rs.	Amount	Rs.
1	Dist. Transformer 200 KVA, 11/0.43 kv	No	1	195137.00		195137.00	
2	L.T.Dist.Boxes 200 KVA with KitKat	No	1	23400.00		23400.00	
3	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00		1268.00	
4	11KV A.B. Switch, 400 A	Set	1	9240.00		9240.00	
5	Danger Board in yard.	No	2	50.00		100.00	
6	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40		1435.00	
7	G.I.Barbed Wire `A' type.	Kg.	150	64.27		9640.50	
8	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	25	329.00		8225.00	
9	L.T. XLPE cable 3.5 Core 240 mm2	Rmt	10	628.00		6280.00	
10	Painting/Hardware & support with numbering of pole	No	1	225.00		225.00	
11	Sundries	LS	1	810.00		810.00	

Cost of material**255760.50**

1	Transportation on material	4.00%	10230
2	T&P on material cost	1.00%	2558
3	Contigencies on material	2.50%	6394
5	Erection cost on material	15.00%	38364
6	Contractor supervision charges on material	5.00%	12788
7	Insurance , Labour & Finance Cost	3.00%	7673

Service Cost**78007****Sub-Total****333767**

8	Turnkey Charges	5.00%	16688
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Total**350456**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	445074	350456
Total Cost of the Estimate	445074	350456

Cost Data for Augmentation of Indoor Distribution Transformer Sub-station 11/0.4 kv, 315 KVA to 11/0.4 kv, 630 KVA

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 630 KVA, 11/0.43 kv	No.	1	619767.00	619767.00
2	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
3	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 630 KVA	L.S.	1 Set	8076.00	8076.00
4	Sundries	L.S.	1	810.00	810.00
Cost of Material					692843.00

1	Transportation on material	4.00%	27714
2	T&P on material cost	1.00%	6928
3	Contigencies on material	2.50%	17321
5	Erection cost on material	15.00%	103926
6	Contractor supervision charges on material	5.00%	34642
7	Insurance , Labour & Finance Cost	3.00%	20785
Service Cost			211317
Sub-Total			904160
8	Turnkey Charges	5.00%	45208

Total**949368**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1205685	949368
Total Cost of the Estimate	1205685	949368

Item Code No. 1310

Cost Data for Augmentation of Indoor Distribution Transformer Sub-station 11/0.4 kv, 630 KVA to 11/0.4 kv, 995 KVA

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount (Rs.)
1	Dist. Transformer 995 KVA, 11/0.4 kv	No.	1	869654.00	869654.00
2	8 way feeder pillar with ACB	No.	1	64190.00	64190.00
3	DTC Metring with Box, single core L.T. XLPE cable (300 sq.mm., 320 mtr length) and other allied material for 995 KVA	L.S.	1 Set	8476.00	8476.00
4	Sundries	L.S.	1	810.00	810.00
Cost of Material					943130.00

1	Transportation on material	4.00%	37725
2	T&P on material cost	1.00%	9431
3	Contigencies on material	2.50%	23578
5	Erection cost on material	15.00%	141470
6	Contractor supervision charges on material	5.00%	47157
7	Insurance , Labour & Finance Cost	3.00%	28294
Service Cost			287655
Sub-Total			1230785
8	Turnkey Charges	5.00%	61539

Total **1292324**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1641235	1292324
Total Cost of the Estimate	1641235	1292324

L.T. LINE 3 ph 4 W. -WIND PRESSURE ZONE - With AAC 55 sqmm for phase & ACSR Weasel for neutral with PSC Pole 8 Mtr (200 KG)

SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT(RS)	AMT.(RS)
1	PSC Pole 8 Mtr (200 KG)	No.	20	1980.00	39600.00
2	AAC 55 mm ²	Rmt	3200	28.56	91392.00
3	ACSR Weasel	Rmt	1100	18.50	20350.00
4	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
5	L.T.Shackle Insulator	No	72	10.00	720.00
6	L.T.Shackle hardware	Pair	96	37.00	3552.00
7	Jointing Sleeves for AAC	No	4	32.00	128.00
8	Aluminium Bobbins for neutral	No.	20	32.00	640.00
9	PG Clamp	No	6	27.00	162.00
10	Earthing Sets L.T.	No	5	166.00	830.00
11	L.T. Stay sets	No	8	472.00	3776.00
12	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	72	57.45	4136.40
13	Stay Insulators	No	8	10.00	80.00
14	Binding Wire	Kg.	1.5	70.00	105.00
15	Binding Tape	Kg	1.5	43.00	64.50
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
17	Concreting ration 1:3:6	Cmt	2.4	3027.00	7264.80
18	L.T.Spacers	No	57	110.00	6270.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
20	Wedge connectors				
a)	Ant To Ant or equivalent AAC	No	32	114.00	3648.00
b)	GNAT To GNAT or equivalent AAC	No	24	114.00	2736.00

Cost of material**195258.70**

1	Transportation on material	4.00%	7810
2	T&P on material cost	1.00%	1953
3	Contingencies on material	2.50%	4881
5	Erection cost on material	15.00%	29289
6	Contractor supervision charges on material	5.00%	9763
7	Insurance , Labour & Finance Cost	3.00%	5858
	Service Cost		59554
	Sub-Total		254813
8	Turnkey Charges	5.00%	12741

Total**267553**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	339789	267553
Total Cost of the Estimate	339789	267553

L.T. LINE 3 ph 4 W. -WIND PRESSURE ZONE - With AAC 55 aqmm for phase & ACSR Weasel for neutral with PSC Pole 8 Mtr (140 KG)

SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT(RS)	AMT.(RS)
1	PSC Pole 8 Mtr (140 KG)	No.	20	1650.00	33000.00
2	AAC 55 mm2	Rmt	3200	28.56	91392.00
3	ACSR Weasel	Rmt	1100	18.50	20350.00
4	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
5	L.T.Shackle Insulator	No	72	10.00	720.00
6	L.T.Shackle hardware	Pair	96	37.00	3552.00
7	Aluminium Bobbins for neutral	No.	20	32.00	640.00
8	Jointing Sleeves for AAC	No	4	32.00	128.00
9	PG Clamp	No	6	27.00	162.00
10	Earthing Sets L.T.	No	5	166.00	830.00
11	L.T. Stay sets	No	8	472.00	3776.00
12	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	72	57.45	4136.40
13	Stay Insulators	No	8	10.00	80.00
14	Binding Wire	Kg.	1.5	70.00	105.00
15	Binding Tape	Kg	1.5	43.00	64.50
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
17	Concreting ration 1:3:6	Cmt	2.4	3027.00	7264.80
18	L.T.Spacers	No	57	110.00	6270.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
20	Wedge connectors				
a)	Ant To Ant or equivalent AAC	No	32	114.00	3648.00
b)	GNAT To GNAT or equivalent AAC	No	24	114.00	2736.00

Cost of material**188658.70**

1	Transportation on material	4.00%	7546
2	T&P on material cost	1.00%	1887
3	Contigencies on material	2.50%	4716
5	Erection cost on material	15.00%	28299
6	Contractor supervision charges on material	5.00%	9433
7	Insurance , Labour & Finance Cost	3.00%	5660
	Service Cost		57541
	Sub-Total		246200
8	Turnkey Charges	5.00%	12310

Total**258510**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	328304	258510
Total Cost of the Estimate	328304	258510

Item Code No. 1402					
L.T. LINE 3 ph 4 W. - ACSR Weasel with PSC Pole 8 Mtr (200 KG)					
SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT(RS)	AMT.(RS)
1	PSC Pole 8 Mtr (200 KG)	No.	16	1980.00	31680.00
2	ACSR Weasel	Rmt	4300	18.50	79550.00
3	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
4	L.T.Shackle Insulator	No	60	10.00	600.00
5	Aluminium Bobbins for neutral	No.	20	32.00	640.00
6	L.T.Shackle hardware	Pair	80	37.00	2960.00
7	Jointing Sleeves for AAC	No	4	32.00	128.00
8	PG Clamp	No	6	27.00	162.00
9	Earthing Sets L.T.	No	5	166.00	830.00
10	L.T. Stay sets	No	8	472.00	3776.00
11	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	72	57.45	4136.40
12	Stay Insulators	No	8	10.00	80.00
13	Binding Wire	Kg.	1.5	70.00	105.00
14	Binding Tape	Kg	1.5	43.00	64.50
15	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
16	Concreting ration 1:3:6	Ls	1	3027.00	3027.00
17	L.T.Spacers	No	45	110.00	4950.00
18	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
19	Wedge connectors				
a)	GNAT To GNAT or equivalent AAAC	No	56	114.00	6384.00

Cost of material

148876.90

1	Transportation on material	4.00%	5955
2	T&P on material cost	1.00%	1489
3	Contigencies on material	2.50%	3722
5	Erection cost on material	15.00%	22332
6	Contractor supervision charges on material	5.00%	7444
7	Insurance , Labour & Finance Cost	3.00%	4466
	Service Cost		45407
	Sub-Total		194284
8	Turnkey Charges	5.00%	9714

Total

203999

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	259076	203999
Total Cost of the Estimate	259076	203999

SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT(RS)	AMT.(RS)
1	PSC Pole 8 Mtr (140 KG)	No.	16	1650.00	26400.00
2	ACSR Weasel	Rmt	4300	18.50	79550.00
3	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
4	L.T.Shackle Insulator	No	60	10.00	600.00
5	Aluminium Bobbins for neutral	No.	20	32.00	640.00
6	L.T.Shackle hardware	Pair	80	37.00	2960.00
7	Jointing Sleeves for AAC	No	4	32.00	128.00
8	PG Clamp	No	6	27.00	162.00
9	Earthing Sets L.T.	No	5	166.00	830.00
10	L.T. Stay sets	No	8	472.00	3776.00
11	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	72	57.45	4136.40
12	Stay Insulators	No	8	10.00	80.00
13	Binding Wire	Kg.	1.5	70.00	105.00
14	Binding Tape	Kg	1.5	43.00	64.50
15	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
16	Concreting ration 1:3:6	Ls	1	3027.00	3027.00
17	L.T.Spacers	No	45	110.00	4950.00
18	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
19	Wedge connectors				
a)	GNAT To GNAT or equivalent AAAC	No	56	114.00	6384.00

Cost of material**143596.90**

1	Transportation on material	4.00%	5744
2	T&P on material cost	1.00%	1436
3	Contingencies on material	2.50%	3590
5	Erection cost on material	15.00%	21540
6	Contractor supervision charges on material	5.00%	7180
7	Insurance , Labour & Finance Cost	3.00%	4308
	Service Cost		43797
	Sub-Total		187394
8	Turnkey Charges	5.00%	9370

Total**196764**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	249887	196764
Total Cost of the Estimate	249887	196764

Item Code No.1403

Cost data for laying of 1 Km. L.T. XLPE Armoured Cable for Size 70 mm2

Sr.No.	Particulars	Unit	Qty.	RT/UNIT(RS)	Amount
1	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt	1000.00	204.00	204000.00
2	R.C.C. Pipe 150 mm 2 M	No.	30.00	572.00	17160.00
3	L.T. jointing kits for 70 Sqmm	No.	10.00	448.00	4480.00
4	Misc. (Bricks,sand,tremination kit and etc.)	LS	1.00	25350.00	25350.00

Cost of material

250990.00

1	Transportation on material	4.00%	10040
2	T&P on material cost	1.00%	2510
3	Contigencies on material	2.50%	6275
5	Erection cost on material	15.00%	37649
6	Contractor supervision charges on material	5.00%	12550
7	Insurance , Labour & Finance Cost	3.00%	7530

Service Cost

76552

Sub-Total

327542

8	Turnkey Charges	5.00%	16377
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Total

343919

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	436773	343919
Total Cost of the Estimate	436773	343919

Item Code No.1405

Cost data for laying of 1 Km. L.T.XLPE Cable for Size 120 mm2.

Sr.No.	Particulars	Unit	Qty.	RT/UNIT(RS)	Amount
1	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	1000.00	329.00	329000.00
2	R.C.C. Pipe 150 mm 2 M	No.	30.00	572.00	17160.00
3	L.T. jointing kits for 120 Sqmm	No	10.00	560.00	5600.00
4	Misc. (Bricks,sand,tremination kit and etc.)	LS	1.00	25350.00	25350.00

Cost of material

377110.00

1	Transportation on material	4.00%	15084
2	T&P on material cost	1.00%	3771
3	Contigencies on material	2.50%	9428
5	Erection cost on material	15.00%	56567
6	Contractor supervision charges on material	5.00%	18856
7	Insurance , Labour & Finance Cost	3.00%	11313

Service Cost

115019

Sub-Total

492129

8	Turnkey Charges	5.00%	24606
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Total

516735

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	656247	516735
Total Cost of the Estimate	656247	516735

Item Code No.1406

Cost data for laying of 1 Km. L.T.XLPE Armoured Cable for Size 185 mm2.

Sr.No.	Particulars	Unit	Qty.	RT/UNIT(RS)	Amount
1	L.T. XLPE Armoured 3.5 Core cable185 sq.mm.	Rmt	1000.00	490.00	490000.00
2	R.C.C. Pipe 150 mm 2 M	No.	30.00	572.00	17160.00
3	LT St.through joints for 185 sqmm	No	10.00	864.00	8640.00
4	Misc. (Bricks,sand,tremination kit and etc.)	LS	1.00	25350.00	25350.00

Cost of material

541150.00

1	Transportation on material	4.00%	21646
2	T&P on material cost	1.00%	5412
3	Contigencies on material	2.50%	13529
5	Erection cost on material	15.00%	81173
6	Contractor supervision charges on material	5.00%	27058
7	Insurance , Labour & Finance Cost	3.00%	16235
	Service Cost		165051
	Sub-Total		706201
8	Turnkey Charges	5.00%	35310

Total

741511

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	941709	741511
Total Cost of the Estimate	941709	741511

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE cable 3.5 Core 300 mm2	Rmt	1000	725.00	725000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**767510.00**

1	Transportation on material	4.00%	30700
2	T&P on material cost	1.00%	7675
3	Contigencies on material	2.50%	19188
5	Erection cost on material	15.00%	115127
6	Contractor supervision charges on material	5.00%	38376
7	Insurance , Labour & Finance Cost	3.00%	23025
Service Cost			234091
Sub-Total			1001601
8	Turnkey Charges	5.00%	50080

Total**1051681**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1335621	1051681
Total Cost of the Estimate	1335621	1051681

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE cable 3.5 Core 240 mm2	Rmt	1000	628.00	628000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					670510.00
1	Transportation on material		4.00%		26820
2	T&P on material cost		1.00%		6705
3	Contigencies on material		2.50%		16763
5	Erection cost on material		15.00%		100577
6	Contractor supervision charges on material		5.00%		33526
7	Insurance , Labour & Finance Cost		3.00%		20115
Service Cost					204506
Sub-Total					875016
8	Turnkey Charges		5.00%		43751
Total					918766

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	1166822	918766
Total Cost of the Estimate	1166822	918766

Estimate for LT to underground 4 x 16 sqmm cable for 1 Km

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE Armoured cable 4core 16sq.mm.	Rmt	1000	78.00	78000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					120510.00
1	Transportation on material		4.00%		4820
2	T&P on material cost		1.00%		1205
3	Contigencies on material		2.50%		3013
5	Erection cost on material		15.00%		18077
6	Contractor supervision charges on material		5.00%		6026
7	Insurance , Labour & Finance Cost		3.00%		3615
Service Cost					36756
Sub-Total					157266
8	Turnkey Charges		5.00%		7863
Total					165129

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	209712	165129
Total Cost of the Estimate	209712	165129

Item Code No. 1410

Estimate for LT to underground 3.5 x 35 sqmm cable for 1 Km

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE armoured cable 3 1/2 C 35 sq.mm.	Rmt	1000	116.00	116000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					158510.00
1	Transportation on material		4.00%		6340
2	T&P on material cost		1.00%		1585
3	Contigencies on material		2.50%		3963
5	Erection cost on material		15.00%		23777
6	Contractor supervision charges on material		5.00%		7926
7	Insurance , Labour & Finance Cost		3.00%		4755
Service Cost					48346
Sub-Total					206856
8	Turnkey Charges		5.00%		10343
Total					217198

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	275839	217198
Total Cost of the Estimate	275839	217198

Item Code No. 1411

Estimate for LT to underground 3.5 x 50 sqmm cable for 1 Km

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt	1000	150.00	150000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					192510.00
1	Transportation on material		4.00%		7700
2	T&P on material cost		1.00%		1925
3	Contigencies on material		2.50%		4813
5	Erection cost on material		15.00%		28877
6	Contractor supervision charges on material		5.00%		9626
7	Insurance , Labour & Finance Cost		3.00%		5775
Service Cost					58716
Sub-Total					251226
8	Turnkey Charges		5.00%		12561
Total					263787

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	335006	263787
Total Cost of the Estimate	335006	263787

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	1000	329.00	329000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					371510.00
1	Transportation on material		4.00%		14860
2	T&P on material cost		1.00%		3715
3	Contigencies on material		2.50%		9288
5	Erection cost on material		15.00%		55727
6	Contractor supervision charges on material		5.00%		18576
7	Insurance , Labour & Finance Cost		3.00%		11145
Service Cost					113311
Sub-Total					484821
8	Turnkey Charges		5.00%		24241
Total					509062

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	646502	509062
Total Cost of the Estimate	646502	509062

Item Code No. 1413

Estimate for LT to underground 3.5 x 70 sqmm cable for 1 Km

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt	1000	204.00	204000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					246510.00
1	Transportation on material		4.00%		9860
2	T&P on material cost		1.00%		2465
3	Contigencies on material		2.50%		6163
5	Erection cost on material		15.00%		36977
6	Contractor supervision charges on material		5.00%		12326
7	Insurance , Labour & Finance Cost		3.00%		7395
Service Cost					75186
Sub-Total					321696
8	Turnkey Charges		5.00%		16085
Total					337780

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	428977	337780
Total Cost of the Estimate	428977	337780

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	1000	55.11	55110.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**97620.00**

1	Transportation on material	4.00%	3905
2	T&P on material cost	1.00%	976
3	Contigencies on material	2.50%	2441
5	Erection cost on material	15.00%	14643
6	Contractor supervision charges on material	5.00%	4881
7	Insurance , Labour & Finance Cost	3.00%	2929
Service Cost			29774
Sub-Total			127394
8	Turnkey Charges	5.00%	6370

Total**133764**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	169878	133764
Total Cost of the Estimate	169878	133764

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	Armoured Copper control cable 2Cx4 sq.mm.	Rmt	1000	74.78	74780.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					117290.00
1	Transportation on material		4.00%		4692
2	T&P on material cost		1.00%		1173
3	Contigencies on material		2.50%		2932
5	Erection cost on material		15.00%		17594
6	Contractor supervision charges on material		5.00%		5865
7	Insurance , Labour & Finance Cost		3.00%		3519
Service Cost					35773
Sub-Total					153063
8	Turnkey Charges		5.00%		7653
Total					160717

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	204108	160717
Total Cost of the Estimate	204108	160717

Item Code No. 1417

Estimate for LT to underground 2C x 16 sqmm cable for 1 Km

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE Amoured 2C 16 Sqmm cable	Rmt	1000	52.00	52000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
2	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					94510.00
1	Transportation on material		4.00%		3780
2	T&P on material cost		1.00%		945
3	Contigencies on material		2.50%		2363
5	Erection cost on material		15.00%		14177
6	Contractor supervision charges on material		5.00%		4726
7	Insurance , Labour & Finance Cost		3.00%		2835
Service Cost					28826
Sub-Total					123336
8	Turnkey Charges		5.00%		6167
Total					129502

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	164466	129502
Total Cost of the Estimate	164466	129502

Item Code No. 1418

Estimate for LT to underground 4C x 16 sqmm cable for 1 Km

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE Armoured cable 4core 16sq.mm.	Rmt	1000	78.00	78000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
2	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					120510.00
1	Transportation on material		4.00%		4820
2	T&P on material cost		1.00%		1205
3	Contigencies on material		2.50%		3013
5	Erection cost on material		15.00%		18077
6	Contractor supervision charges on material		5.00%		6026
7	Insurance , Labour & Finance Cost		3.00%		3615
Service Cost					36756
Sub-Total					157266
8	Turnkey Charges		5.00%		7863
Total					165129

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	209712	165129
Total Cost of the Estimate	209712	165129

SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT(RS)	AMT.(RS)
1	RSJ 125x70, 9 m long	No.	20	5268.00	105360.00
2	AAAC 55 mm2	Rmt	4300	28.56	122808.00
3	ACSR Weasel	Rmt	1100	18.50	20350.00
4	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
5	L.T.Shackle Insulator	No	96	10.00	960.00
6	Aluminium Bobbins for neutral	No.	24	32.00	768.00
7	L.T.Shackle hardware	pair	120	37.00	4440.00
8	Joining Sleeves for AAC	No	4	32.00	128.00
9	PG Clamp	No	6	27.00	162.00
10	Earthing Sets L.T.	No	5	166.00	830.00
11	L.T. Stay sets	No	8	472.00	3776.00
12	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	72	57.45	4136.40
13	Stay Insulators	No	8	10.00	80.00
14	Binding Wire	Kg.	1.5	70.00	105.00
15	Binding Tape	Kg	1.5	43.00	64.50
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
17	Concreting ration 1:3:6	Cmt	2.4	3027.00	
18	L.T.Spacers	No	57	110.00	6270.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
20	Wedge connectors				
a)	Ant To Ant or equivalent AAAC	No	32	114.00	3648.00
b)	GNAT To GNAT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**286425.90**

1	Transportation on material	4.00%	11457
2	T&P on material cost	1.00%	2864
3	Contigencies on material	2.50%	7161
5	Erection cost on material	15.00%	42964
6	Contractor supervision charges on material	5.00%	14321
7	Insurance , Labour & Finance Cost	3.00%	8593
	Service Cost		87360
	Sub-Total		373786
8	Turnkey Charges	5.00%	18689

Total**392475**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	498438	392475
Total Cost of the Estimate	498438	392475

L.T. LINE 3 ph 4 W. on 125 X 70mm, 9m RSJ pole With AAAC 55 sqmm for phase & ACSR Weasel for neutral

SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT(RS)	AMT.(RS)
1	RSJ 125x70, 9 m long	No.	20	5268.00	105360.00
2	AAAC 55 mm ²	Rmt	3200	28.56	91392.00
3	ACSR Weasel	Rmt	1100	18.50	20350.00
4	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
5	L.T.Shackle Insulator	No	72	10.00	720.00
6	Aluminium Bobbins for neutral	No.	24	32.00	768.00
7	L.T.Shackle hardware	Pair	96	37.00	3552.00
8	Joining Sleeves for AAC	No	4	32.00	128.00
9	PG Clamp	No	6	27.00	162.00
10	Earthing Sets L.T.	No	5	166.00	830.00
11	L.T. Stay sets	No	8	472.00	3776.00
12	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	72	57.45	4136.40
13	Stay Insulators	No	8	10.00	80.00
14	Binding Wire	Kg.	1.5	70.00	105.00
15	Binding Tape	Kg	1.5	43.00	64.50
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
17	Concreting ration 1:3:6	Cmt	2.4	3027.00	
18	L.T.Spacers	No	57	110.00	6270.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
20	Wedge connectors				
a)	Ant To Ant or equivalent AAAC	No	32	114.00	3648.00
b)	GNAT To GNAT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**253881.90**

1	Transportation on material	4.00%	10155
2	T&P on material cost	1.00%	2539
3	Contingencies on material	2.50%	6347
5	Erection cost on material	15.00%	38082
6	Contractor supervision charges on material	5.00%	12694
7	Insurance , Labour & Finance Cost	3.00%	7616
	Service Cost		77434
	Sub-Total		331316
8	Turnkey Charges	5.00%	16566

Total**347882**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	441805	347882
Total Cost of the Estimate	441805	347882

L.T. LINE 3 ph 4 W. on 125 X 70mm, 8m RSJ pole With AAAC 55 sqmm for phase & ACSR Weasel for neutral

SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT(RS)	AMT.(RS)
1	RSJ 125x70, 8 m long	No.	20	4683.00	93660.00
2	AAAC 55 mm ²	Rmt	3200	28.56	91392.00
3	ACSR Weasel	Rmt	1100	18.50	20350.00
4	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
5	L.T.Shackle Insulator	No	72	10.00	720.00
6	Aluminium Bobbins for neutral	No.	24	32.00	768.00
7	L.T.Shackle hardware	Pair	96	37.00	3552.00
8	Joining Sleeves for AAC	No	4	32.00	128.00
9	PG Clamp	No	6	27.00	162.00
10	Earthing Sets L.T.	No	5	166.00	830.00
11	L.T. Stay sets	No	8	472.00	3776.00
12	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	72	57.45	4136.40
13	Stay Insulators	No	8	10.00	80.00
14	Binding Wire	Kg.	1.5	70.00	105.00
15	Binding Tape	Kg	1.5	43.00	64.50
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
17	Concreting ration 1:3:6	Cmt	2.4	3027.00	
18	L.T.Spacers	No	57	110.00	6270.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
20	Wedge connectors				
a)	Ant To Ant or equivalent AAAC	No	32	114.00	3648.00
b)	GNAT To GNAT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**242181.90**

1	Transportation on material	4.00%	9687
2	T&P on material cost	1.00%	2422
3	Contingencies on material	2.50%	6055
5	Erection cost on material	15.00%	36327
6	Contractor supervision charges on material	5.00%	12109
7	Insurance , Labour & Finance Cost	3.00%	7265
	Service Cost		73865
	Sub-Total		316047
8	Turnkey Charges	5.00%	15802

Total**331850**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	421445	331850
Total Cost of the Estimate	421445	331850

3 phase 5 wire LT line with AAAC 55 sqmm for phase and ACSR Weasel for neutral on PSC pole, 8 mtr., 200 Kg

Sr. No.	DESCRIPTION OF MATERIALS.	UNIT	QTY	Rate/Unit Rs.	Amount Rs.
1	PSC Pole 8 Mtr (200 KG)	No	20.00	1980.00	39600.00
2	AAAC 55 mm2	Rmt	3100.00	28.56	88536.00
3	ACSR Weasel	Rmt	2100.00	18.50	38850.00
4	MS angle 50x50x6 mm	Kg	150.00	51.80	7770.00
5	M.S. Flats(50 X 10mm)	Kg	40.00	48.50	1940.00
6	L.T.Shackle Insulator	No	96.00	10.00	960.00
7	Aluminium Bobbins for neutral	No.	24	32.00	768.00
8	L.T.Shackle hardware	Pair	120.00	37.00	4440.00
9	Jointing Sleeves for AAC	No	5.00	32.00	160.00
10	PG Clamp	No	6.00	27.00	162.00
11	Earthing Sets L.T.	Set	5.00	166.00	830.00
12	L.T. Stay sets	Set	8.00	472.00	3776.00
13	G.I.Stay Wire 7/3.15mm(10SWG)	Kg.	100.00	57.45	5745.00
14	Stay Insulators	No	8.00	10.00	80.00
15	Binding Wire	Kg	1.80	70.00	126.00
16	Binding Tape	Kg	1.80	43.00	77.40
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	100.00	57.40	5740.00
18	Red Oxide Paint for 2 coats	Ltr	25.00	85.00	2125.00
19	L.T.Spacers	No	76.00	110.00	8360.00
20	G.I.Nut Bolts	Kg	57.00	82.90	4725.30
21	Wedge connectors				
a)	Ant To Ant or equivalent AAAC	No	32	114.00	3648.00
b)	GNAT To GNAT or equivalent AAAC	No	24	114.00	2736.00
21	Sundries	LS	1.00	810.00	810.00
	Cost of Material				221964.70

1	Transportation on material	4.00%	8879
2	T&P on material cost	1.00%	2220
3	Contingencies on material	2.50%	5549
5	Erection cost on material	15.00%	33295
6	Contractor supervision charges on material	5.00%	11098
7	Insurance , Labour & Finance Cost	3.00%	6659
	Service Cost		67699
	Sub-Total		289664
8	Turnkey Charges	5.00%	14483

Total**304147**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	386263	304147
Total Cost of the Estimate	386263	304147

3 phase 5 wire LT line with AAAC 55 sqmm for phase and ACSR Weasel for neutral on PSC pole, 8 mtr., 140 Kg

Sr. No.	DESCRIPTION OF MATERIALS.	UNIT	QTY	Rate/Unit Rs.	Amount Rs.
1	PSC Pole 8 Mtr (140 KG)	No	20.00	1650.00	33000.00
2	AAAC 55 mm2	Rmt	3100.00	28.56	88536.00
3	ACSR Weasel	Rmt	2100.00	18.50	38850.00
4	MS angle 50x50x6 mm	Kg	150.00	51.80	7770.00
5	M.S. Flats(50 X 10mm)	Kg	40.00	48.50	1940.00
6	L.T.Shackle Insulator	No	96.00	10.00	960.00
7	Aluminium Bobbins for neutral	No.	24	32.00	768.00
7	L.T.Shackle hardware	Pair	120.00	37.00	4440.00
8	Jointing Sleeves for AAC	No	5.00	32.00	160.00
9	PG Clamp	No	6.00	27.00	162.00
10	Earthing Sets L.T.	Set	5.00	166.00	830.00
11	L.T. Stay sets	Set	8.00	472.00	3776.00
12	G.I.Stay Wire 7/3.15mm(10SWG)	Kg.	100.00	57.45	5745.00
13	Stay Insulators	No	8.00	10.00	80.00
14	Binding Wire	Kg	1.80	70.00	126.00
15	Binding Tape	Kg	1.80	43.00	77.40
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	100.00	57.40	5740.00
17	Red Oxide Paint for 2 coats	Ltr	25.00	85.00	2125.00
18	L.T.Spacers	No	76.00	110.00	8360.00
19	G.I.Nut Bolts	Kg	57.00	82.90	4725.30
20	Wedge connectors				
a)	Ant To Ant or equivalent AAAC	No	32	114.00	3648.00
b)	GNAT To GNAT or equivalent AAAC	No	24	114.00	2736.00
21	Sundries	LS	1.00	810.00	810.00
	Cost of Material				215364.70

1	Transportation on material	4.00%	8615
2	T&P on material cost	1.00%	2154
3	Contingencies on material	2.50%	5384
5	Erection cost on material	15.00%	32305
6	Contractor supervision charges on material	5.00%	10768
7	Insurance , Labour & Finance Cost	3.00%	6461
	Service Cost		65686
	Sub-Total		281051
8	Turnkey Charges	5.00%	14053

Total**295103**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	374778	295103
Total Cost of the Estimate	374778	295103

SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT(RS)	AMT.(RS)
1	PSC Pole 8 Mtr (200 KG)	No.	22	1980.00	43560.00
2	ACSR Weasel	Rmt	3150	18.50	58275.00
3	M.S.Flat 50 x 6 mm	Kg	60	48.50	2910.00
4	L.T.Shackle Insulator	No	52	10.00	520.00
5	Aluminium Bobbins for neutral	No.	26	32.00	832.00
6	L.T.Shackle hardware	Pair	104	37.00	3848.00
7	Jointing Sleeves for AAC	No	3	32.00	96.00
8	PG Clamp	No	6	27.00	162.00
9	Earthing Sets L.T.	No	5	166.00	830.00
10	L.T. Stay sets	No	8	472.00	3776.00
11	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	96	57.45	5515.20
12	Stay Insulators	No	8	10.00	80.00
13	Binding Wire	Kg.	2	70.00	140.00
14	Binding Tape	Kg	2	43.00	86.00
15	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
16	Concreting ration 1:3:6	LS	1	3027.00	3027.00
17	L.T.Spacers	No	63	110.00	6930.00
18	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
19	Wedge connectors				
a)	GNAT To GNAT or equivalent AAAC	No	32	114.00	3648.00

Cost of material**142875.20**

1	Transportation on material	4.00%	5715
2	T&P on material cost	1.00%	1429
3	Contingencies on material	2.50%	3572
5	Erection cost on material	15.00%	21431
6	Contractor supervision charges on material	5.00%	7144
7	Insurance , Labour & Finance Cost	3.00%	4286
	Service Cost		43577
	Sub-Total		186452
8	Turnkey Charges	5.00%	9323

Total**195775**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	248631	195775
Total Cost of the Estimate	248631	195775

Item Code No. 1501A

L.T. LINE 1 ph 3 W. -with ACSR Weasel for phase & neutral with PSC Pole 8 Mtr (140 KG)

SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT(RS)	AMT.(RS)
1	PSC Pole 8 Mtr (140 KG)	No.	22	1650.00	36300.00
2	ACSR Weasel	Rmt	3150	18.50	58275.00
3	M.S.Flat 50 x 6 mm	Kg	60	48.50	2910.00
4	L.T.Shackle Insulator	No	52	10.00	520.00
5	Aluminium Bobbins for neutral	No.	26	32.00	832.00
6	L.T.Shackle hardware	Pair	104	37.00	3848.00
7	Jointing Sleeves for AAC	No	3	32.00	96.00
8	PG Clamp	No	6	27.00	162.00
9	Earthing Sets L.T.	No	5	166.00	830.00
10	L.T. Stay sets	No	8	472.00	3776.00
11	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	96	57.45	5515.20
12	Stay Insulators	No	8	10.00	80.00
13	Binding Wire	Kg.	2	70.00	140.00
14	Binding Tape	Kg	2	43.00	86.00
15	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
16	Concreting ration 1:3:6	LS	1	3027.00	3027.00
17	L.T.Spacers	No	63	110.00	6930.00
18	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
19	Wedge connectors				
a)	GNAT To GNAT or equivalent AAAC	No	32	114.00	3648.00

Cost of material

135615.20

1	Transportation on material	4.00%	5425
2	T&P on material cost	1.00%	1356
3	Contigencies on material	2.50%	3390
5	Erection cost on material	15.00%	20342
6	Contractor supervision charges on material	5.00%	6781
7	Insurance , Labour & Finance Cost	3.00%	4068
	Service Cost		41363
	Sub-Total		176978
8	Turnkey Charges	5.00%	8849

Total

185827

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	235998	185827
Total Cost of the Estimate	235998	185827

Item Code No. 1502

L.T. LINE 1 ph 2 W. - with ACSR Weasel for phase & neutral with PSC Pole 8 Mtr (200 KG)

SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT	AMT.(RS)
1	PSC Pole 8 Mtr (200 KG)	No.	22	1980.00	43560.00
2	ACSR Weasel	Rmt	2100	18.50	38850.00
3	M.S.Flat 50 x 6 mm	Kg	40	48.50	1940.00
4	L.T.Shackle Insulator	No	26	10.00	260.00
5	Aluminium Bobbins for neutral	No.	26	32.00	832.00
6	L.T.Shackle hardware	Pair	78	37.00	2886.00
7	Jointing Sleeves for AAC	No	2	32.00	64.00
8	PG Clamp	No	6	27.00	162.00
9	Earthing Sets L.T.	No	5	166.00	830.00
10	L.T. Stay sets	No	8	472.00	3776.00
11	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	96	57.45	5515.20
12	Stay Insulators	No	8	10.00	80.00
13	Binding Wire	Kg.	1.5	70.00	105.00
14	Binding Tape	Kg	1.5	43.00	64.50
15	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
16	Concreting ration 1:3:6	LS	1	3027.00	3027.00
17	L.T.Spacers	No	63	110.00	6930.00
18	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
19	Wedge connectors				
a)	GNAT To GNAT or equivalent AAAC	No	24	114.00	2736.00

Cost of material

120257.70

1	Transportation on material	4.00%	4810
2	T&P on material cost	1.00%	1203
3	Contingencies on material	2.50%	3006
5	Erection cost on material	15.00%	18039
6	Contractor supervision charges on material	5.00%	6013
7	Insurance , Labour & Finance Cost	3.00%	3608
	Service Cost		36679
	Sub-Total		156936
8	Turnkey Charges	5.00%	7847

Total

164783

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	209272	164783
Total Cost of the Estimate	209272	164783

L.T. LINE 1 ph 2 W. - with ACSR Weasel for phase & neutral with PSC Pole 8 Mtr (140 KG)

SR.NO.	DESCRIPTION OF MATERIALS.	UNIT	QTY	RT/UNIT	AMT.(RS)
1	PSC Pole 8 Mtr (140 KG)	No.	22	1650.00	36300.00
2	ACSR Weasel	Rmt	2100	18.50	38850.00
3	M.S.Flat 50 x 6 mm	Kg	40	48.50	1940.00
4	L.T.Shackle Insulator	No	26	10.00	260.00
5	Aluminium Bobbins for neutral	No.	26	32.00	832.00
5	L.T.Shackle hardware	Pair	78	37.00	2886.00
6	Jointing Sleeves for AAC	No	2	32.00	64.00
7	PG Clamp	No	6	27.00	162.00
8	Earthing Sets L.T.	No	5	166.00	830.00
9	L.T. Stay sets	No	8	472.00	3776.00
10	G.I.Stay Wire 7/3.15mm(10SWG)	Kg	96	57.45	5515.20
11	Stay Insulators	No	8	10.00	80.00
12	Binding Wire	Kg.	1.5	70.00	105.00
13	Binding Tape	Kg	1.5	43.00	64.50
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
15	Concreting ration 1:3:6	LS	1	3027.00	3027.00
16	L.T.Spacers	No	63	110.00	6930.00
17	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
18	Wedge connectors				
a)	GNAT To GNAT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**112997.70**

1	Transportation on material	4.00%	4520
2	T&P on material cost	1.00%	1130
3	Contingencies on material	2.50%	2825
5	Erection cost on material	15.00%	16950
6	Contractor supervision charges on material	5.00%	5650
7	Insurance , Labour & Finance Cost	3.00%	3390
	Service Cost		34464
	Sub-Total		147462
8	Turnkey Charges	5.00%	7373

Total**154835**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	196639	154835
Total Cost of the Estimate	196639	154835

Item Code No. 1503

1 phase 2 Wire LT line with ACSR Weasel for phase and GNAT for neutral on 125 X 70 mm, RSJ 9 Mtr long Pole

S.No.	Description	Unit	Qty.	Rate	Amount
1	RSJ 125x70, 9 m long	No	16	5268.00	84288.00
2	MS Flat 50 X 8 mm	Kg	24	48.50	1164.00
3	ACSR Weasel	Rmt	1100	18.50	20350.00
4	ACSR Weasel	Rmt	1100	18.50	20350.00
5	L.T.Shackle Insulator	No	20	10.00	200.00
6	Aluminium Bobbins for neutral	No.	20	32.00	640.00
7	L.T.Shackle hardware	Pair	60	37.00	2220.00
8	Joining Sleeves for AAC	No	2	32.00	64.00
9	PG Clamp	No	4	27.00	108.00
10	Earthing Sets L.T.	Set	5	166.00	830.00
11	L.T. Stay sets	Set	8	472.00	3776.00
12	G.I.Stay Wire 7/3.15mm(10SWG)	Kg.	72	57.45	4136.40
13	Stay Insulators	No	8	10.00	80.00
14	Binding Wire	Kg	2	70.00	140.00
15	Binding Tape	Kg	2	43.00	86.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	75	57.40	4305.00
17	L.T.Spacers	No	45	110.00	4950.00
18	Wedge connectors				
a)	Ant To Ant or equivalent AAAC	No	12	114.00	1368.00
b)	GNAT To GNAT or equivalent AAAC	No	12	114.00	1368.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
	Cost of material				153323.40

1	Transportation on material	4.00%	6133
2	T&P on material cost	1.00%	1533
3	Contingencies on material	2.50%	3833
5	Erection cost on material	15.00%	22999
6	Contractor supervision charges on material	5.00%	7666
7	Insurance , Labour & Finance Cost	3.00%	4600
	Service Cost		46764
	Sub-Total		200087
8	Turnkey Charges	5.00%	10004

Total

210091

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	266813	210091
Total Cost of the Estimate	266813	210091

1 phase 2 Wire LT line with AAAC 55 sqmm for phase and ACSR Weasel for neutral on PSC Pole 8 Mtr (200 KG).

S.No.	Description	Unit	Qty.	Rate	Amount
1	PSC Pole 8 Mtr (200 KG)	No	16	1980.00	31680.00
2	MS Flat 50 X 8 mm	Kg	24	48.50	1164.00
3	AAAC 55 mm ²	Rmt	1100.00	28.56	31416.00
4	ACSR Weasel	Rmt	1100	18.50	20350.00
5	L.T.Shackle Insulator	No	20	10.00	200.00
6	Aluminium Bobbins for neutral	No.	20	32.00	640.00
7	L.T.Shackle hardware	Pair	60	37.00	2220.00
8	Joining Sleeves for AAC	No	2	32.00	64.00
9	PG Clamp	No	4	27.00	108.00
10	Earthing Sets L.T.	Set	5	166.00	830.00
11	L.T. Stay sets	Set	8	472.00	3776.00
12	G.I.Stay Wire 7/3.15mm(10SWG)	Kg.	72	57.45	4136.40
13	Stay Insulators	No	8	10.00	80.00
14	Binding Wire	Kg	2	70.00	140.00
15	Binding Tape	Kg	2	43.00	86.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	75	57.40	4305.00
17	L.T.Spacers	No	45	110.00	4950.00
18	Wedge connectors				
	a) Ant To Ant or equivalent AAAC	No	12	114.00	1368.00
	b) GNAT To GNAT or equivalent AAAC	No	12	114.00	1368.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
	Cost of material				111781.40

1	Transportation on material	4.00%	4471
2	T&P on material cost	1.00%	1118
3	Contingencies on material	2.50%	2795
5	Erection cost on material	15.00%	16767
6	Contractor supervision charges on material	5.00%	5589
7	Insurance , Labour & Finance Cost	3.00%	3353
	Service Cost		34093
	Sub-Total		145875
8	Turnkey Charges	5.00%	7294

Total**153168**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	194522	153168
Total Cost of the Estimate	194522	153168

1 phase 2 Wire LT line with AAAC 55 sqmm for phase and ACSR Weasel for neutral on PSC Pole 8 Mtr (140 KG).

S.No.	Description	Unit	Qty.	Rate	Amount
1	PSC Pole 8 Mtr (140 KG)	No	16	1650.00	26400.00
2	MS Flat 50 X 8 mm	Kg	24	48.50	1164.00
3	AAAC 55 mm ²	Rmt	1100.00	28.56	31416.00
4	ACSR Weasel	Rmt	1100	18.50	20350.00
5	L.T.Shackle Insulator	No	20	10.00	200.00
6	Aluminium Bobbins for neutral	No.	20	32.00	640.00
7	L.T.Shackle hardware	Pair	60	37.00	2220.00
8	Joining Sleeves for AAC	No	2	32.00	64.00
9	PG Clamp	No	4	27.00	108.00
10	Earthing Sets L.T.	Set	5	166.00	830.00
11	L.T. Stay sets	Set	8	472.00	3776.00
12	G.I.Stay Wire 7/3.15mm(10SWG)	Kg.	72	57.45	4136.40
13	Stay Insulators	No	8	10.00	80.00
14	Binding Wire	Kg	2	70.00	140.00
15	Binding Tape	Kg	2	43.00	86.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	75	57.40	4305.00
17	L.T.Spacers	No	45	110.00	4950.00
18	Wedge connectors				
	a) Ant To Ant or equivalent AAAC	No	12	114.00	1368.00
	b) GNAT To GNAT or equivalent AAAC	No	12	114.00	1368.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
	Cost of material				106501.40

1	Transportation on material	4.00%	4260
2	T&P on material cost	1.00%	1065
3	Contingencies on material	2.50%	2663
5	Erection cost on material	15.00%	15975
6	Contractor supervision charges on material	5.00%	5325
7	Insurance , Labour & Finance Cost	3.00%	3195
	Service Cost		32483
	Sub-Total		138984
8	Turnkey Charges	5.00%	6949

Total**145934**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	185334	145934
Total Cost of the Estimate	185334	145934

Item Code No. 1505

1 phase 2 Wire LT line with AAAC 55 sqmm for phase and ACSR Weasel for neutral on RSJ 125 X 70, 8mtr.

S.No.	Description	Unit	Qty.	Rate	Amount
1	RSJ 125x70, 8 m long	No	16	4683.00	74928.00
2	MS Flat 50 X 8 mm	Kg	24	48.50	1164.00
3	ACSR Weasel	Rmt	1100	18.50	20350.00
4	AAAC 55 mm2	Rmt	1100	28.56	31416.00
5	L.T.Shackle Insulator	No	20	10.00	200.00
6	Aluminium Bobbins for neutral	No.	20	32.00	640.00
7	L.T.Shackle hardware	Pair	60	37.00	2220.00
8	Joining Sleeves for AAC	No	2	32.00	64.00
9	PG Clamp	No	4	27.00	108.00
10	Earthing Sets L.T.	Set	5	166.00	830.00
11	L.T. Stay sets	Set	8	472.00	3776.00
12	G.I.Stay Wire 7/3.15mm(10SWG)	Kg.	72	57.45	4136.40
13	Stay Insulators	No	8	10.00	80.00
14	Binding Wire	Kg	2	70.00	140.00
15	Binding Tape	Kg	2	43.00	86.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	75	57.40	4305.00
17	Wedge connectors				
a)	Ant To Ant or equivalent AAAC	No	12	114.00	1368.00
b)	GNAT To GNAT or equivalent AAAC	No	12	114.00	1368.00
18	L.T.Spacers	No	45	110.00	4950.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
	Cost of material				155029.40

1	Transportation on material	4.00%	6201
2	T&P on material cost	1.00%	1550
3	Contigencies on material	2.50%	3876
5	Erection cost on material	15.00%	23254
6	Contractor supervision charges on material	5.00%	7751
7	Insurance , Labour & Finance Cost	3.00%	4651
	Service Cost		47284
	Sub-Total		202313
8	Turnkey Charges	5.00%	10116

Total

212429

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	269782	212429
Total Cost of the Estimate	269782	212429

11 KV ,25 KVA Dist. Transformer centers on 100x116mm, 9 mtrs RSJ poles with MCCB Dist. Box.

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	11 / .433 KV 25 KVA Transformer	No.	1	47113.00	47113.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	NO.	3	135.00	405.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 25/63 KVA with MCCB	No.	1	12270.00	12270.00
10	L.As. 11 KV (Gapless type) with disconnector	Set.	1	1268.00	1268.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	11KV H.G.Fuses	Set.	1	1964.00	1964.00
15	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
16	Danger Board in yard.	No.	2	50.00	100.00
17	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
18	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
19	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
20	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
21	DTC Metring with Box, single core L.T. XLPE cable (16 sq.mm., 120 mtr length) and other allied material.	No.	1	7514.00	7514.00
22	Sundries	L.S.	1	810.00	810.00

Cost of material**123453.10**

1	Transportation on material	4.00%	4938
2	T&P on material cost	1.00%	1235
3	Contingencies on material	2.50%	3086
5	Erection cost on material	15.00%	18518
6	Contractor supervision charges on material	5.00%	6173
7	Insurance , Labour & Finance Cost	3.00%	3704
	Service Cost		37653
	Sub-Total		161106
8	Turnkey Charges	5.00%	8055

Total**169162**

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	214833	169162
Total Cost of the Estimate	214833	169162

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	PSC Pole 9 Mtr (200 KG)	No.	18	2260.00	40680.00
2	MS Channel 100x50x6 mm	Kg.	140	51.80	7252.00
3	M.S.Channel 75x40x6 mm	Kg.	150	51.80	7770.00
4	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
5	22 KV V cross arm with clamp	No.	12	906.00	10872.00
6	22 KV Top Fitting	No.	12	382.00	4584.00
7	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
8	G.I.Nut Bolts	Kg.	90	82.90	7461.00
9	22 kv Pin Insulators with G.I. Pins	No.	51	336.00	17136.00
10	Disc Insulator 11 KV 45 KN	No.	72	244.00	17568.00
11	Strain Hardware for 55 Sq.mm AAAC	Set	24	140.00	3360.00
12	AAAC 55 mm2	Rmt	3100	28.56	88536.00
13	Sleeve Joints	No.	3	115.00	345.00
14	H.T.Stay Set	Set	12	598.00	7176.00
15	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	88	57.45	5055.60
16	Earthing Sets H.T	Set	18	342.00	6156.00
17	G.I.Barbed Wire `A' type.	Kg.	77	64.27	4948.79
18	Danger Board in yard.	No.	18	50.00	900.00
19	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
20	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00
23	Minor Fabrication, binding tape, wire, etc.				
24	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**302569.49****Assumption:**

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)

Cost of material

302569.49

1	Transportation on material	4.00%	12103
2	T&P on material cost	1.00%	3026
3	Contigencies on material	2.50%	7564
5	Erection cost on material	15.00%	45385
6	Contractor supervision charges on material	5.00%	15128
7	Insurance , Labour & Finance Cost	3.00%	9077
	Service Cost		92284
	Sub-Total		394853
8	Turnkey Charges	5.00%	19743

Total**414596**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	526531	414596
Total Cost of the Estimate	526531	414596

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 9 m long	No.	18	9254.00	166572.00
2	RSJ 116x100, 8 m long	No.	5	8226.00	41130.00
3	MS Channel 100x50x6 mm	Kg.	140	51.80	7252.00
4	M.S.Channel 75x40x6 mm	Kg.	150	51.80	7770.00
5	MS angle 50x50x6 mm	Kg.	72	51.80	3729.60
6	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
7	22 KV V cross arm with clamp	No.	12	906.00	10872.00
8	22 KV Top Fitting	No.	12	382.00	4584.00
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	22 kV Pin Insulators with G.I. Pins	No.	51	336.00	17136.00
11	Disc Insulator 11 KV 45 KN	No.	72	244.00	17568.00
12	Strain Hardware for 55 Sq.mm AAAC	Set	36	140.00	5040.00
13	AAAC 55 mm2	Rmt	3100	28.56	88536.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	11	598.00	6578.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	88	57.45	5055.60
17	Earthing Sets H.T	Set	18	342.00	6156.00
18	G.I.Barbed Wire 'A' type.	Kg.	77	64.27	4948.79
19	Danger Board in yard.	No.	18	50.00	900.00
20	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Minor Fabrication, binding tape, wire, etc.				
27	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**473745.49****Assumption:**

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 5 strut support considered.

Cost of material

473745.49

1	Transportation on material	4.00%	18950
2	T&P on material cost	1.00%	4737
3	Contigencies on material	2.50%	11844
5	Erection cost on material	15.00%	71062
6	Contractor supervision charges on material	5.00%	23687
7	Insurance , Labour & Finance Cost	3.00%	14212
	Service Cost		144492
	Sub-Total		618238
8	Turnkey Charges	5.00%	30912

Total**649150**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	824412	649150
Total Cost of the Estimate	824412	649150

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 9 m long	No.	18	9254.00	166572.00
2	RSJ 116x100, 8 m long	No.	5	8226.00	41130.00
3	MS Channel 100x50x6 mm	Kg.	140	51.80	7252.00
4	M.S.Channel 75x40x6 mm	Kg.	150	51.80	7770.00
5	MS angle 50x50x6 mm	Kg.	66	51.80	3418.80
6	M.S. Flats(50 X 10mm)	Kg.	171	48.50	8293.50
7	22 KV V cross arm with clamp	No.	12	906.00	10872.00
8	22 KV Top Fitting	No.	12	382.00	4584.00
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	22 kV Pin Insulators with G.I. Pins	No.	51	336.00	17136.00
11	Disc Insulator 11 KV 45 KN	No.	72	244.00	17568.00
12	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	36	322.00	11592.00
13	AAAC 100 mm2	Rmt	3100	51.82	160642.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	11	598.00	6578.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	88	57.45	5055.60
17	Earthing Sets H.T	Set	18	342.00	6156.00
18	G.I.Barbed Wire `A' type.	Kg.	77	64.27	4948.79
19	Danger Board in yard.	No.	18	50.00	900.00
20	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Minor Fabrication, binding tape, wire, etc.				
27	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00

Cost of material

558591.69

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 5 strut support considered.

Cost of material

558591.69

1	Transportation on material	4.00%	22344
2	T&P on material cost	1.00%	5586
3	Contigencies on material	2.50%	13965
5	Erection cost on material	15.00%	83789
6	Contractor supervision charges on material	5.00%	27930
7	Insurance , Labour & Finance Cost	3.00%	16758
	Service Cost		170370
	Sub-Total		728962
8	Turnkey Charges	5.00%	36448

Total

765410

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	972061	765410
Total Cost of the Estimate	972061	765410

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	PSC Pole 9 Mtr (200 KG)	No.	18	2260.00	40680.00
2	M.S.Channel 75x40x6 mm	Kg.	140	51.80	7252.00
3	11 kv guarding channel MS 75x40	Kg.	150	51.80	7770.00
4	11 KV V cross arm with clamp	No.	12	639.00	7668.00
5	11 KV Top fitting with clamp	No.	12	91.00	1092.00
6	MS angle 50x50x6 mm	Kg.	66	51.80	3418.80
7	M.S. Flats(50 X 10mm)	Kg.	171	48.50	8293.50
8	G.I.Nut Bolts	Kg.	90	82.90	7461.00
9	11 kv Pin Insulators with G.I. Pins	No.	51	135.00	6885.00
10	Disc Insulator 11 KV 45 KN	No.	72	244.00	17568.00
11	Strain Hardware for 55 Sq.mm AAAC	Set	36	140.00	5040.00
12	AAAC 55 mm2	Rmt	3100	28.56	88536.00
13	Sleeve Joints	No.	3	115.00	345.00
14	H.T.Stay Set	Set	11	598.00	6578.00
15	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	88	57.45	5055.60
16	Earthing Sets H.T	Set	18	342.00	6156.00
17	G.I.Barbed Wire `A' type.	Kg.	77	64.27	4948.79
18	Danger Board in yard.	No.	18	50.00	900.00
19	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
20	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
21	Painting of Supports & fabricated materials	LS	1	155.00	155.00
22	Sundries	LS	1	810.00	810.00
23	Minor Fabrication, binding tape, wire, etc.				
24	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**295628.69****Assumption:**

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)

Cost of material

295628.69

1	Transportation on material	4.00%	11825
2	T&P on material cost	1.00%	2956
3	Contigencies on material	2.50%	7391
5	Erection cost on material	15.00%	44344
6	Contractor supervision charges on material	5.00%	14781
7	Insurance , Labour & Finance Cost	3.00%	8869
Service Cost			90167
Sub-Total			385795
8	Turnkey Charges	5.00%	19290

Total**405085**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	514453	405085
Total Cost of the Estimate	514453	405085

(A) HT Line :					
Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 9 m long	No.	18	9254.00	166572.00
2	RSJ 116x100, 8 m long	No.	2	8226.00	16452.00
3	M.S.Channel 75x40x6 mm	Kg.	140	51.80	7252.00
4	11 kv guarding channel MS 75x40	Kg.	150	51.80	7770.00
5	11 KV V cross arm with clamp	No.	12	639.00	7668.00
6	11 KV Top fitting with clamp	No.	12	91.00	1092.00
7	MS angle 50x50x6 mm	Kg.	66	51.80	3418.80
8	M.S. Flats(50 X 10mm)	Kg.	171	48.50	8293.50
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	11 kV Pin Insulators with G.I. Pins	No.	51	135.00	6885.00
11	Disc Insulator 11 KV 45 KN	No.	72	244.00	17568.00
12	Strain Hardware for 55 Sq.mm AAAC	Set	36	140.00	5040.00
13	AAAC 55 mm2	Rmt	3100	28.56	88536.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	11	598.00	6578.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	88	57.45	5055.60
17	Earthing Sets H.T	Set	18	342.00	6156.00
18	G.I.Barbed Wire `A' type.	Kg.	77	64.27	4948.79
19	Danger Board in yard.	No.	18	50.00	900.00
20	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Minor Fabrication, binding tape, wire, etc.				
27	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00

Cost of material**438308.69****Assumption:**

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 2 strut support considered.

Cost of material

438308.69

1	Transportation on material	4.00%	17532
2	T&P on material cost	1.00%	4383
3	Contigencies on material	2.50%	10958
5	Erection cost on material	15.00%	65746
6	Contractor supervision charges on material	5.00%	21915
7	Insurance , Labour & Finance Cost	3.00%	13149
	Service Cost		133684
	Sub-Total		571993
8	Turnkey Charges	5.00%	28600

Total**600592**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	762745	600592
Total Cost of the Estimate	762745	600592

Cost data for 11 KV Single circuit Pin type with 100sq.mm AAAC lines on 9 mtr RSJ poles

(A) HT Line :

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	RSJ 116x100, 9 m long	No.	18	9254.00	166572.00
2	RSJ 116x100, 8 m long	No.	2	8226.00	16452.00
3	M.S.Channel 75x40x6 mm	Kg.	140	51.80	7252.00
4	11 kv guarding channel MS 75x40	Kg.	150	51.80	7770.00
5	11 KV V cross arm with clamp	No.	12	639.00	7668.00
6	11 KV Top fitting with clamp	No.	12	91.00	1092.00
7	MS angle 50x50x6 mm	Kg.	66	51.80	3418.80
8	M.S. Flats(50 X 10mm)	Kg.	171	48.50	8293.50
9	G.I.Nut Bolts	Kg.	90	82.90	7461.00
10	11 kV Pin Insulators with G.I. Pins	No.	51	135.00	6885.00
11	Disc Insulator 11 KV 45 KN	No.	72	244.00	17568.00
12	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	36	322.00	11592.00
13	AAAC 100 mm2	Rmt	3100	51.82	160642.00
14	Sleeve Joints	No.	3	115.00	345.00
15	H.T.Stay Set	Set	11	598.00	6578.00
16	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	88	57.45	5055.60
17	Earthing Sets H.T	Set	18	342.00	6156.00
18	G.I.Barbed Wire 'A' type.	Kg.	77	64.27	4948.79
19	Danger Board in yard.	No.	18	50.00	900.00
20	Concreting ration 1:3:6	Cmt.	20	3027.00	60540.00
21	G.I.Wire 8 SWG/ 6 SWG	Kg.	100	57.40	5740.00
22	Black Bituminus Paint	Ltr.	6	85.00	510.00
23	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
24	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
25	Sundries	LS	1	810.00	810.00
26	Minor Fabrication, binding tape, wire, etc.				
27	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00

Cost of material

516966.69

Assumption:

- 1) 4- cut points (including 1- rightangle cut point in 1 km.)
- 2) Average span lengthe - 60 mtrs.
- 3) Conceriting for all poles, struts & stages. (1:4:8)
- 4) 5 strut support considered.

Cost of material

516966.69

1	Transportation on material	4.00%	20679
2	T&P on material cost	1.00%	5170
3	Contigencies on material	2.50%	12924
5	Erection cost on material	15.00%	77545
6	Contractor supervision charges on material	5.00%	25848
7	Insurance , Labour & Finance Cost	3.00%	15509
	Service Cost		157675
	Sub-Total		674642
8	Turnkey Charges	5.00%	33732

Total

708374

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	899625	708374
Total Cost of the Estimate	899625	708374

Item Code No. 1611

11 KV ,25 KVA Dist. Transformer centers on 116 X 100 mm,11 mtrs RSJ poles with MCCB Dist box.

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	11 / .433 KV 25 KVA Transformer	No.	1	47113.00	47113.00
2	RSJ 116x100, 11 m long	No	2	11311.00	22622.00
3	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
4	M.S.Channel 75x40x6 mm	kg.	44	51.80	2279.20
5	MS angle 50x50x6 mm	kg.	22	51.80	1139.60
6	M.S.Flat 50 x 6 mm	kg.	24	48.50	1164.00
7	11 kV Pin Insulators with G.I. Pins	NO.	3	135.00	405.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	3	322.00	966.00
9	L.T.Dist.Boxes 25/63 KVA with MCCB	No.	1	12270.00	12270.00
10	L.As. 11 KV (Gapless type) with disconnector	Set.	1	1268.00	1268.00
11	H.T.Stay Set	No	4	598.00	2392.00
12	G.I.Stay Wire 7/4mm(8 SWG)	kg.	25	57.45	1436.25
13	Earthing Sets H.T	No.	3	342.00	1026.00
14	11KV H.G.Fuses	Set.	1	1964.00	1964.00
	11KV A.B. Switch, 400 A	No.	1	9240.00	9240.00
15	Danger Board in yard.	No.	2	50.00	100.00
16	G.I.Wire 8 SWG/ 6 SWG	Kg.	25	57.40	1435.00
17	G.I.Barbed Wire `A' type.	kg.	15	64.27	964.05
18	Concreting ration 1:3:6	CMT.	2	3027.00	6054.00
19	Painting/Hardware & support with numbering of pole	L.S.	1	225.00	225.00
20	DTC Metring with Box, single core L.T. XLPE cable (16 sq.mm., 120 mtr length) and other allied material.	No.	1	7514.00	7514.00
21	Sundries	L.S.	1	810.00	810.00

Cost of material

127567.10

1	Transportation on material	4.00%	5103
2	T&P on material cost	1.00%	1276
3	Contingencies on material	2.50%	3189
5	Erection cost on material	15.00%	19135
6	Contractor supervision charges on material	5.00%	6378
7	Insurance , Labour & Finance Cost	3.00%	3827
	Service Cost		38908
	Sub-Total		166475
8	Turnkey Charges	5.00%	8324

Total

174799

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	221992	174799
Total Cost of the Estimate	221992	174799

Cost data for 11 KV Capacitor Bank at Dist. substation (on Existing pole).

Sr.No	Particulars	Unit	Qty.	RT/U Rs.	Amount
1	Capacitor banks without Switchgear 11 KV 0.6 MVAR	No.	1	43795.00	43795.00
2	Automatic capacitor switch 11 KV	No.	1	206553.00	206553.00
3	M.S.Channel 75x40x6 mm	Kg	50	51.80	2590.00
4	MS angle 50x50x6 mm	Kg.	10	51.80	518.00
5	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
6	Earthing Sets H.T	No.	2	342.00	684.00
7	Earthing materials	L.S.	1	395.00	395.00
8	Miscellaneous material	L.S.	1	475.00	475.00

Cost of material**255495.00**

1	Transportation on material	4.00%	10220
2	T&P on material cost	1.00%	2555
3	Contigencies on material	2.50%	6387
5	Erection cost on material	5.00%	12775
6	Contractor supervision charges on material	5.00%	12775
7	Insurance , Labour & Finance Cost	3.00%	7665

Service Cost**52376****Sub-Total****307871**

8	Turnkey Charges	5.00%	15394
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Total**323265**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	411500	323265
Total Cost of the Estimate	411500	323265

Cost data for 11 KV Capacitor Bank at Dist. substation (on New double pole).

Sr.No	Particulars	Unit	Qty.	RT/U Rs.	Amount
A)	Capacitor bank				
1	Capacitor banks without Switchgear 11 KV 0.6 MVAR	No.	1	43795.00	43795.00
2	Automatic capacitor switch 11 KV	No.	1	206553.00	206553.00
B)	DOUPLE POLE STRUCTURE , 11 M LONG RSJ POLE				
3	RSJ 152x152, 11 m long	No.	2	18245.00	36490.00
4	M.S. Flats(50 X 10mm)	Kg.	10	48.50	485.00
5	MS Channel 100x50x6 mm	Kg.	110	51.80	5698.00
6	M.S.Channel 75x40x6 mm	Kg.	75	51.80	3885.00
7	MS angle 50x50x6 mm	Kg.	50	51.80	2590.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	322.00	1932.00
9	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
10	H.T.Stay Set	No.	2	598.00	1196.00
11	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	25	57.45	1436.25
12	Earthing Sets H.T	No	2	342.00	684.00
13	G.I.Wire 8 SWG/ 6 SWG	kg.	6	57.40	344.40
14	G.I.Barbed Wire 'A' type.	kg.	7	64.27	449.89
15	Danger Board in yard.	No.	2	50.00	100.00
16	Black Bituminus Paint	Ltr.	2	85.00	170.00
17	Red Oxide Paint for 2 coats	Ltr.	6	85.00	510.00
18	Aluminium Paint for 1 coat	Ltr.	4	113.00	452.00
19	11 kV Pin Insulators with G.I. Pins	No.	2	135.00	270.00
20	L.As. 11 KV (Gapless type) with disconnector	No.	1	1268.00	1268.00
21	Concreting ration 1:3:6	Cmt.	2	3027.00	6054.00
20	Sundries	L.S.	1	810.00	810.00

Cost of material

317236.54

1	Transportation on material	5.00%	15862
2	T&P on material cost	1.00%	3172
3	Contigencies on material	2.50%	7931
5	Erection cost on material	5.00%	15862
6	Contractor supervision charges on material	5.00%	15862
7	Insurance , Labour & Finance Cost	3.00%	9517
	Service Cost		68206
	Sub-Total		385442
8	Turnkey Charges	5.00%	19272

Total

404715

Particulars		
	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	510941	401384
Total Cost of the Estimate	510941	401384

Item Code No. 1703

Cost Data for 11 KV Station Type 1.2 MVAR Capacitor Bank with 0.2 % Reactor for rural area

Sr.No.	Description of Material	Unit	Qty.	Rate in Rs.	Amt.
1	11 KV Lightning Arrestors (Station type)	Set	1	10260.00	10260.00
2	11 kV, Single phase, outdoor NCT	Nos.	1	13000.00	13000.00
	11 KV CT 400 - 200 / 5 - 5 Outdoor	Nos.	3	10611.00	31833.00
3	1.2 MVAR, 11 kV Capacitor Bank	Set	1	118369.00	118369.00
4	11KV A.B. Switch, 400 A	Nos.	1	9240.00	9240.00
2	11 KV Isolators with EB (800 A)	Set	1	30025.00	30025.00
5	11 KV Isolators without EB (800 Amp.)	Set	1	26630.00	26630.00
6	11 KV VCB 800 A Outdoor	Set	1	117466.00	117466.00
7	Structure , clamps, painting etc. as per sht. No. 1	L.S.	1	31754.00	31754.00
8	C&R Panel for 11 kV Outgoing Feeder OD	Nos.	1	49844.00	49844.00
9	0.9688 KVAR, 11 kv, 1 Ph, Al winded series reactor	Set	1	46220.00	46220.00
10	Earthing Sets H.T	L.S.	17	342.00	5814.00

Cost of material

490455.00

1	Transportation on material	4.00%	19618
2	T&P on material cost	1.00%	4905
3	Contingencies on material	2.50%	12261
5	Erection cost on material	5.00%	24523
6	Contractor supervision charges on material	5.00%	24523
7	Insurance , Labour & Finance Cost	3.00%	14714
	Service Cost		100543
	Sub-Total		590998
8	Turnkey Charges	5.00%	29550

Total

620548

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	789927	620548
Total Cost of the Estimate	789927	620548

Cost data of Structure for 11 KV Station Capacitor Bank

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 11 KV CT	Kg.	50	51.80	2590.00
2	Structure for 11 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Breaker and Capacitors	Kg.	360	51.80	18648.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
	Total:				31754.00

Cost Data for 11 KV Station Type 2.4 MVAR Capacitor Bank with 0.2 % Reactor for any area

Sr.No.	Description of Material	Unit	Qty.	Rate in Rs.	Amt.
1	11 KV Lightning Arrestors (Station type)	Set	1	10260.00	10260.00
2	11 kV, Single phase, outdoor NCT	Nos.	1	13000.00	13000.00
	11 KV CT 400 - 200 / 5 - 5 Outdoor	Nos.	3	10611.00	31833.00
3	2.4 MVAR, 11 kV Capacitor Bank	Set	1	240731.00	240731.00
4	11KV A.B. Switch, 400 A	Nos.	1	9240.00	9240.00
2	11 KV Isolators with EB (800 A)	Set	1	30025.00	30025.00
5	11 KV Isolators without EB (800 Amp.)	Set	1	26630.00	26630.00
6	11 KV VCB 800 A Outdoor	Set	1	117466.00	117466.00
7	Structure , clamps, painting etc. as per sht. No. 1	L.S.	1	31754.00	31754.00
8	C&R Panel for 11 kV Outgoing Feeder OD	Nos.	1	49844.00	49844.00
9	1.93 KVAR, 11 kv, 1 Ph, Al winded series reactor	Set	1	54887.00	54887.00
10	Earthing Sets H.T	L.S.	17	342.00	5814.00

Cost of material

621484.00

1	Transportation on material	4.00%	24859
2	T&P on material cost	1.00%	6215
3	Contingencies on material	2.50%	15537
5	Erection cost on material	5.00%	31074
6	Contractor supervision charges on material	5.00%	31074
7	Insurance , Labour & Finance Cost	3.00%	18645
	Service Cost		127404
	Sub-Total		748888
8	Turnkey Charges	5.00%	37444

Total

786333

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1000962	786333
Total Cost of the Estimate	1000962	786333

Cost data of Structure for 11 KV Station Capacitor Bank

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 11 KV CT	Kg.	50	51.80	2590.00
2	Structure for 11 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Breaker and Capacitors	Kg.	360	51.80	18648.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
	Total:				31754.00

Cost Data for 11 KV Station Type 3.0 MVAR Capacitor Bank with 0.2 % Reactor for Rural area

Sr.No.	Description of Material	Unit	Qty.	Rate in Rs.	Amt.
1	11 KV Lightning Arrestors (Station type)	Set	1	10260.00	10260.00
2	11 kV, Single phase, outdoor NCT	Nos.	1	13000.00	13000.00
	11 KV CT 400 - 200 / 5 - 5 Outdoor	Nos.	3	10611.00	31833.00
3	3.0 MVAR, 11 kV Capacitor Bank	Set	1	291765.00	291765.00
4	11KV A.B. Switch, 400 A	Nos.	1	9240.00	9240.00
2	11 KV Isolators with EB (800 A)	Set	1	30025.00	30025.00
5	11 KV Isolators without EB (800 Amp.)	Set	1	26630.00	26630.00
6	11 KV VCB 800 A Outdoor	Set	1	117466.00	117466.00
7	Structure , clamps, painting etc. as per sht. No. 1	L.S.	1	31754.00	31754.00
8	C&R Panel for 11 kV Outgoing Feeder OD	Nos.	1	49844.00	49844.00
9	2.42 KVAR, 11 kv, 1 Ph, Al winded series reactor	Set	1	89552.00	89552.00
10	Earthing Sets H.T	L.S.	17	342.00	5814.00

Cost of material

707183.00

1	Transportation on material	4.00%	28287
2	T&P on material cost	1.00%	7072
3	Contingencies on material	2.50%	17680
5	Erection cost on material	5.00%	35359
6	Contractor supervision charges on material	5.00%	35359
7	Insurance , Labour & Finance Cost	3.00%	21215
	Service Cost		144973
	Sub-Total		852156
8	Turnkey Charges	5.00%	42608

Total

894763

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1138989	894763
Total Cost of the Estimate	1138989	894763

Cost data of Structure for 11 KV Station Capacitor Bank

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 11 KV CT	Kg.	50	51.80	2590.00
2	Structure for 11 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Breaker and Capacitors	Kg.	360	51.80	18648.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
	Total:				31754.00

Cost Data for 11 KV Station Type 3.0 MVAR Capacitor Bank with 6 % Reactor for Urban area

Sr.No.	Description of Material	Unit	Qty.	Rate in Rs.	Amt.
1	11 KV Lightning Arrestors (Station type)	Set	1	10260.00	10260.00
2	11 kV, Single phase, outdoor NCT	Nos.	1	13000.00	13000.00
	11 KV CT 400 - 200 / 5 - 5 Outdoor	Nos.	3	10611.00	31833.00
3	3.0 MVAR, 11 kV Capacitor Bank	Set	1	291765.00	291765.00
4	11KV A.B. Switch, 400 A	Nos.	1	9240.00	9240.00
2	11 KV Isolators with EB (800 A)	Set	1	30025.00	30025.00
5	11 KV Isolators without EB (800 Amp.)	Set	1	26630.00	26630.00
6	11 KV VCB 800 A Outdoor	Set	1	117466.00	117466.00
7	Structure , clamps, painting etc. as per sht. No. 1	L.S.	1	43829.00	43829.00
8	C&R Panel for 11 kV Outgoing Feeder OD	Nos.	1	49844.00	49844.00
9	72 kVA, 11 kV series reactor	Set	1	265962.00	265962.00
10	Earthing Sets H.T	L.S.	17	342.00	5814.00

Cost of material

895668.00

1	Transportation on material	4.00%	35827
2	T&P on material cost	1.00%	8957
3	Contingencies on material	2.50%	22392
5	Erection cost on material	5.00%	44783
6	Contractor supervision charges on material	5.00%	44783
7	Insurance , Labour & Finance Cost	3.00%	26870
	Service Cost		183612
	Sub-Total		1079280
8	Turnkey Charges	5.00%	53964

Total

1133244

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1442563	1133244
Total Cost of the Estimate	1442563	1133244

Cost data of Structure for 11 KV Station Capacitor Bank

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 11 KV CT	Kg.	50	51.80	2590.00
2	Structure for 11 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Breaker and Capacitors	Kg.	360	51.80	18648.00
4	Structure for Series Reactor(set)	L.S.	1	12075.00	12075.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
	Total:				43829.00

Item Code No. 1707

Cost Data for 22 KV Station Type 1.2 MVAR Capacitor Bank with 0.2 % Reactor for rural area

Sr.No.	Description of Material	Unit	Qty.	Rate in Rs.	Amt.
1	22 KV Lightning Arrestors (Station type)	Set	1	11884.00	11884.00
2	22 kV, Single phase, outdoor NCT	Nos.	1	18000.00	18000.00
3	22 KV C.T. Three core.	Nos.	3	24999.00	74997.00
4	1.2 MVAR, 22 kV Capacitor Bank	Set	1	219315.00	219315.00
5	22KV A.B.Switch, 400 A	Nos.	1	14447.00	14447.00
6	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
7	22 KV Isolators without EB (800 Amp.)	Set	1	35680.00	35680.00
8	22 KV VCB complete 800 Amp (O.D.)	Set	1	149445.00	149445.00
9	Structure , clamps, painting etc. as per sht. No. 1	L.S.	1	31754.00	31754.00
10	C&R panel for 22 KV feeder breaker	Nos.	1	49844.00	49844.00
11	0.48 KVAR, 22 kv, 1 Ph, Al winded series reactor	Set	1	92133.00	92133.00
12	Earthing Sets H.T	L.S.	17	342.00	5814.00

Cost of material

744860

1	Transportation on material	4.00%	29794
2	T&P on material cost	1.00%	7449
3	Contingencies on material	2.50%	18622
5	Erection cost on material	5.00%	37243
6	Contractor supervision charges on material	5.00%	37243
7	Insurance , Labour & Finance Cost	3.00%	22346
	Service Cost		152696
	Sub-Total		897556
8	Turnkey Charges	5.00%	44878

Total

942434

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1199672	942434
Total Cost of the Estimate	1199672	942434

Cost data of Structure for 22 KV Station Capacitor Bank

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV CT	Kg.	50	51.80	2590.00
2	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Breaker and Capacitors	Kg.	360	51.80	18648.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
	Total:				31754.00

Item Code No. 1708

Cost Data for 22 KV Station Type 2.4 MVAR Capacitor Bank with 0.2 % Reactor for any area

Sr.No.	Description of Material	Unit	Qty.	Rate in Rs.	Amt.
1	22 KV Lightning Arrestors (Station type)	Set	1	11884.00	11884.00
2	22 kV, Single phase, outdoor NCT	Nos.	1	18000.00	18000.00
3	22 KV C.T. Three core.	Nos.	3	24999.00	74997.00
4	2.4 MVAR, 22 kV Capacitor Bank	Set	1	302434.00	302434.00
5	22KV A.B.Switch, 400 A	Nos.	1	14447.00	14447.00
6	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
7	22 KV Isolators without EB (800 Amp.)	Set	1	35680.00	35680.00
8	22 KV VCB complete 800 Amp (O.D.)	Set	1	149445.00	149445.00
9	Structure , clamps, painting etc. as per sht. No. 1	L.S.	1	31754.00	31754.00
10	C&R panel for 22 KV feeder breaker	Nos.	1	49844.00	49844.00
11	0.97 KVAR, 22 kv, 1 Ph, Al winded series reactor	Set	1	120173.00	120173.00
12	Earthing Sets H.T	L.S.	17	342.00	5814.00

Cost of material

856019.00

1	Transportation on material	4.00%	34241
2	T&P on material cost	1.00%	8560
3	Contigencies on material	2.50%	21400
5	Erection cost on material	5.00%	42801
6	Contractor supervision charges on material	5.00%	42801
7	Insurance , Labour & Finance Cost	3.00%	25681
	Service Cost		175484
	Sub-Total		1031503
8	Turnkey Charges	5.00%	51575

Total

1083078

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1378704	1083078
Total Cost of the Estimate	1378704	1083078

Cost data of Structure for 22 KV Station Capacitor Bank

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV CT	Kg.	50	51.80	2590.00
2	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Breaker and Capacitors	Kg.	360	51.80	18648.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
	Total:				31754.00

Cost Data for 22 KV Station Type 3.0 MVAR Capacitor Bank with 0.2 % Reactor for Rural area

Sr.No.	Description of Material	Unit	Qty.	Rate in Rs.	Amt.
1	22 KV Lightning Arrestors (Station type)	Set	1	11884.00	11884.00
2	22 kV, Single phase, outdoor NCT	Nos.	1	18000.00	18000.00
	22 KV C.T. Three core.	Nos.	3	24999.00	74997.00
3	3.0 MVAR, 22 kV Capacitor Bank	Set	1	405582.00	405582.00
4	22KV A.B.Switch, 400 A	Nos.	1	14447.00	14447.00
2	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
5	22 KV Isolators without EB (800 Amp.)	Set	1	35680.00	35680.00
6	22 KV VCB complete 800 Amp (O.D.)	Set	1	149445.00	149445.00
7	Structure , clamps, painting etc. as per sht. No. 1	L.S.	1	31754.00	31754.00
8	C&R panel for 22 KV feeder breaker	Nos.	1	49844.00	49844.00
9	1.32 KVAR, 22 kv, 1 Ph, Al winded series reactor	Set	1	144207.00	144207.00
10	Earthing Sets H.T	L.S.	17	342.00	5814.00

Cost of material

983201.00

1	Transportation on material	4.00%	39328
2	T&P on material cost	1.00%	9832
3	Contigencies on material	2.50%	24580
5	Erection cost on material	5.00%	49160
6	Contractor supervision charges on material	5.00%	49160
7	Insurance , Labour & Finance Cost	3.00%	29496
	Service Cost		201556
	Sub-Total		1184757
8	Turnkey Charges	5.00%	59238

Total

1243995

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1583544	1243995
Total Cost of the Estimate	1583544	1243995

Cost data of Structure for 22 KV Station Capacitor Bank

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV CT	Kg.	50	51.80	2590.00
2	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Breaker and Capacitors	Kg.	360	51.80	18648.00
4	G.I.Nut Bolts	Kg.	30	82.90	2487.00
	Total:				31754.00

Item Code No. 1710

Cost Data for 22 KV Station Type 3.0 MVAR Capacitor Bank with 6 % Reactor for Urban area

Sr.No.	Description of Material	Unit	Qty.	Rate in Rs.	Amt.
1	22 KV Lightning Arrestors (Station type)	Set	1	11884.00	11884.00
2	22 kV, Single phase, outdoor NCT	Nos.	1	18000.00	18000.00
3	22 KV C.T. Three core.	Nos.	3	24999.00	74997.00
4	3.0 MVAR, 22 kV Capacitor Bank	Set	1	405582.00	405582.00
5	22KV A.B.Switch, 400 A	Nos.	1	14447.00	14447.00
6	22 KV Isolators with EB (800 A)	Set	1	41547.00	41547.00
7	22 KV Isolators without EB (800 Amp.)	Set	1	35680.00	35680.00
8	22 KV VCB complete 800 Amp (O.D.)	Set	1	149445.00	149445.00
9	Structure , clamps, painting etc. as per sht. No. 1	L.S.	1	52112.00	52112.00
10	C&R panel for 22 KV feeder breaker	Nos.	1	49844.00	49844.00
11	79.2 kVA, 22 kV series reactor	Set	1	435625.00	435625.00
12	Earthing Sets H.T	L.S.	17	342.00	5814.00

Cost of material

1294977.00

1	Transportation on material	4.00%	51799
2	T&P on material cost	1.00%	12950
3	Contingencies on material	2.50%	32374
5	Erection cost on material	5.00%	64749
6	Contractor supervision charges on material	5.00%	64749
7	Insurance , Labour & Finance Cost	3.00%	38849
Service Cost			265470
Sub-Total			1560447
8	Turnkey Charges	5.00%	78022

Total

1638470

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	2085690	1638470
Total Cost of the Estimate	2085690	1638470

Cost data of Structure for 22 KV Station Capacitor Bank

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV CT	Kg.	50	51.80	2590.00
2	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
3	Structure for Breaker and Capacitors	Kg.	360	51.80	18648.00
4	Structure for Series Reactor(set) 22 kV	L.S.	1	20358.00	20358.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	52112.00

Supply, Erection, Testing & Commissioning of LT 6--WAY Feeder Pillars

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	LT Feeder Pillar 6 Way	No	1	29200.00	29200.00
2	Earthing with GI pipe	No	2	291.00	582.00
3	G.I.Strip (25 X 3 mm)	KG	2	66.78	133.56
4	Sundries	L. S.	1	810.00	810.00
5	Concreting ration 1:3:6	L. S.	1	3027.00	3027.00

Cost of material**33752.56**

1	Transportation on material	4.00%	1350
2	T&P on material cost	1.00%	338
3	Contigencies on material	2.50%	844
5	Erection cost on material	15.00%	5063
6	Contractor supervision charges on material	5.00%	1688
7	Insurance , Labour & Finance Cost	3.00%	1013

Service Cost**10295****Sub-Total****44047**

8	Turnkey Charges	5.00%	2202
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Total**46249**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	58736	46249
Total Cost of the Estimate	58736	46249

Supply, Erection, Testing & Commissioning of LT 8--WAY Feeder Pillars

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	LT Feeder Pillar 8 Way	No	1	38230.00	38230.00
2	Earthing with GI pipe	No	2	291.00	582.00
3	G.I.Strip (25 X 3 mm)	KG	2	66.78	133.56
4	Sundries	L. S.	1	810.00	810.00
5	Concreting ration 1:3:6	L. S.	1	3027.00	3027.00

Cost of material**42782.56**

1	Transportation on material	4.00%	1711
2	T&P on material cost	1.00%	428
3	Contigencies on material	2.50%	1070
5	Erection cost on material	15.00%	6417
6	Contractor supervision charges on material	5.00%	2139
7	Insurance , Labour & Finance Cost	3.00%	1283

Service Cost**13049****Sub-Total****55831**

8	Turnkey Charges	5.00%	2792
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Total**58623**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	74450	58623
Total Cost of the Estimate	74450	58623

Supply, Erection, Testing & Commissioning of LT 4-WAY Feeder Pillars

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	L.T. Feedar Pillar 4 Way	No	1	22940.00	22940.00
2	Earthing with GI pipe	No	2	291.00	582.00
3	G.I.Strip (25 X 3 mm)	kG	2	66.78	133.56
4	Sundries		1	810.00	810.00
5	Concreting ration 1:3:6	L. S.	1	3027.00	3027.00

Cost of material**27492.56**

1	Transportation on material	4.00%	1100
2	T&P on material cost	1.00%	275
3	Contigencies on material	2.50%	687
5	Erection cost on material	15.00%	4124
6	Contractor supervision charges on material	5.00%	1375
7	Insurance , Labour & Finance Cost	3.00%	825

Service Cost**8385****Sub-Total****35878**

8	Turnkey Charges	5.00%	1794
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Total**37672**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	47843	37672
Total Cost of the Estimate	47843	37672

Supply, Erection, Testing & Commissioning of LT mini Feeder Pillars

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	L.T. Mini Feedar Pillar	No	1	8830.00	8830.00
2	Earthing with GI pipe	No	2	291.00	582.00
3	G.I.Strip (25 X 3 mm)	kG	2	66.78	133.56
4	Sundries		1	810.00	810.00
5	Concreting ration 1:3:6	L. S.	1	3027.00	3027.00

Cost of material**13382.56**

1	Transportation on material	4.00%	535
2	T&P on material cost	1.00%	134
3	Contigencies on material	2.50%	335
5	Erection cost on material	15.00%	2007
6	Contractor supervision charges on material	5.00%	669
7	Insurance , Labour & Finance Cost	3.00%	401
	Service Cost		4082
	Sub-Total		17464
8	Turnkey Charges	5.00%	873

Total**18337**

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	23288	18337
Total Cost of the Estimate	23288	18337

Upgradation of 33 KV Lines 80 sq mm to 100 sq mm conductor

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	AAAC 100 mm ²	Rmt	3150	51.82	163233.00
2	RSJ 152x152, 10 m long	no	4	16586.00	66344.00
3	MS Channel 100x50x6 mm	Kg.	108	51.80	5594.40
4	MS angle 50x50x6 mm	Kg.	71	51.80	3677.80
5	M.S. Flats(50 X 10mm)	Kg.	45	48.50	2182.50
6	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
7	Tension Hardware for 100 sq.mm Conductor.	No.	6	341.00	2046.00
8	33 kV Pin Insulators with G.I. Pins	No.	12	541.00	6492.00
9	G.I.Wire 8 SWG/ 6 SWG	Kg.	16	57.40	918.40
10	Sleve Joints	No.	3	115.00	345.00
11	Danger Board in yard.	No.	4	50.00	200.00
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Concreting ration 1:3:6	cmt.	2	3027.00	6054.00
14	G.I.Barbed Wire `A' type.	Kg.	15	64.27	964.05
15	Black Bituminus Paint	Ltr.	6	85.00	510.00
16	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
17	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
18	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
19	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00
	Cost of material				281026.15

1	Transportation on material	4.00%	11241
2	T&P on material cost	1.00%	2810
3	Contingencies on material	2.50%	7026
5	Erection cost on material	15.00%	42154
6	Contractor supervision charges on material	5.00%	14051
7	Insurance , Labour & Finance Cost	3.00%	8431
	Service Cost		85713
	Sub-Total		366739
8	Turnkey Charges	5.00%	18337

Total**385076**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	489042	385076
Total Cost of the Estimate	489042	385076

Cost data of Upgradation of 33 KV Line by AAAC 232 sqmm Cond..

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	AAAC 232 mm2	Rmt	3100	127.40	394940.00
2	RSJ 152x152, 13 m long	no	4	21562.00	86248.00
3	G.I.Channel 100x50x6mm	Kg.	108	70.08	7568.64
4	G.I.Angle 50x50x6mm	Kg.	71	70.08	4975.68
5	G.I Flat 50x10 mm	Kg.	45	66.78	3005.10
6	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
7	Strain Hardware for AAAC232 sq.mm.	No.	6	603.00	3618.00
8	33 kV Pin Insulators with G.I. Pins	No.	12	541.00	6492.00
9	G.I.Wire 8 SWG/ 6 SWG	Kg.	16	57.40	918.40
10	Sleeve Joints	No.	3	115.00	345.00
11	Danger Board in yard.	No.	4	50.00	200.00
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Concreting ration 1:3:6	cmt.	2	3027.00	6054.00
14	G.I.Barbed Wire `A` type.	Kg.	15	64.27	964.05
15	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
16	Wedge connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	No	18	718.00	12924.00
	Cost of material				534584.87

1	Transportation on material	4.00%	21383
2	T&P on material cost	1.00%	5346
3	Contigencies on material	2.50%	13365
5	Erection cost on material	15.00%	80188
6	Contractor supervision charges on material	5.00%	26729
7	Insurance , Labour & Finance Cost	3.00%	16038
	Service Cost		163048
	Sub-Total		697633
8	Turnkey Charges	5.00%	34882

Total**732515**

Particulars	Tender/ Estimate Amount	
	DPR Amount	
Cost with overheads on Material	930285	732515
Total Cost of the Estimate	930285	732515

Replacement of old HT cable by new XLPE cable size 33 kV, 3 C, 300 sq. mm.

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	XLPE Cable 33 KV, 3 C / 300 mm sq.	Rmt	1000.00	1737.00	1737000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	33 kV Heat shrik Straight through joint (Al) kit for XLPE 3 C X 300 sqmm	Kit	4.00	36900.00	147600.00
5	33 kV Heat shrik Outdoor termination joint (Al) kit for XLPE 3 C X 300 sqmm	Kit	2.00	19028.00	38056.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Sundries	LS	1.00	810.00	810.00

Cost of material**2099526.00**

1	Transportation on material	4.00%	83981
2	T&P on material cost	1.00%	20995
3	Contigencies on material	2.50%	52488
5	Erection cost on material	15.00%	314929
6	Contractor supervision charges on material	5.00%	104976
7	Insurance , Labour & Finance Cost	3.00%	62986

Service Cost**640355****Sub-Total****2739881**

8	Turnkey Charges	5.00%	136994
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Total**2876876**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3653595	2876876
Total Cost of the Estimate	3653595	2876876

Replacement of old HT O/D termination joints for 33 kV, 3 C, 300 sq. mm. XLPE cable

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	33 kV Heat shrik Outdoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No	1	19028.00	19028.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				19838.00

1	Transportation on material	4.00%	794
2	T&P on material cost	1.00%	198
3	Contigencies on material	2.50%	496
5	Erection cost on material	15.00%	2976
6	Contractor supervision charges on material	5.00%	992
7	Insurance , Labour & Finance Cost	3.00%	595
	Service Cost		6051
	Sub-Total		25889
8	Turnkey Charges	5.00%	1294

Total**27183**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	34522	27183
Total Cost of the Estimate	34522	27183

Item Code No. 5105

Replacement of old HT I/D termination joints for 33 kV, 3 C, 300 sq. mm. XLPE cable

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	33 kV Heat shrik Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No	1	14145.00	14145.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				14955.00

1	Transportation on material	4.00%	598
2	T&P on material cost	1.00%	150
3	Contingencies on material	2.50%	374
5	Erection cost on material	15.00%	2243
6	Contractor supervision charges on material	5.00%	748
7	Insurance , Labour & Finance Cost	3.00%	449
	Service Cost		4561
	Sub-Total		19516
8	Turnkey Charges	5.00%	976

Total **20492**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	26025	20492
Total Cost of the Estimate	26025	20492

Replacement of old HT I/D straight through joints for 33 kV, 3 C, 300 sq. mm. XLPE cable

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	33 kV Heat shrik Straight through joint (AI) kit for XLPE 3 C X 300 sqmm	No	1	36900.00	36900.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				37710.00

1	Transportation on material	4.00%	1508
2	T&P on material cost	1.00%	377
3	Contingencies on material	2.50%	943
5	Erection cost on material	15.00%	5657
6	Contractor supervision charges on material	5.00%	1886
7	Insurance , Labour & Finance Cost	3.00%	1131
	Service Cost		11502
	Sub-Total		49212
8	Turnkey Charges	5.00%	2461

Total**51672**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	65623	51672
Total Cost of the Estimate	65623	51672

Upgradation of 22 KV Line

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	AAAC 100 mm ²	Rmt	3150	51.82	163233.00
2	RSJ 152x152, 10 m long	no	4	16586.00	66344.00
3	MS Channel 100x50x6 mm	Kg.	108	51.80	5594.40
4	MS angle 50x50x6 mm	Kg.	71	51.80	3677.80
5	M.S. Flats(50 X 10mm)	Kg.	45	48.50	2182.50
6	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
7	Tension Hardware for 100 sq.mm Conductor.	No.	6	341.00	2046.00
8	22 kV Pin Insulators with G.I. Pins	No.	12	336.00	4032.00
9	G.I.Wire 8 SWG/ 6 SWG	Kg.	16	57.40	918.40
10	Sleve Joints	No.	3	115.00	345.00
11	Danger Board in yard.	No.	4	50.00	200.00
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Concreting ration 1:3:6	cmt.	2	3027.00	6054.00
14	G.I.Barbed Wire `A' type.	Kg.	15	64.27	964.05
15	Black Bituminus Paint	Ltr.	6	85.00	510.00
16	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
17	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
18	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
19	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00
	Cost of material				280630.15

1	Transportation on material	4.00%	11225
2	T&P on material cost	1.00%	2806
3	Contingencies on material	2.50%	7016
5	Erection cost on material	15.00%	42095
6	Contractor supervision charges on material	5.00%	14032
7	Insurance , Labour & Finance Cost	3.00%	8419
	Service Cost		85592
	Sub-Total		366222
8	Turnkey Charges	5.00%	18311

Total**384533**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	488353	384533
Total Cost of the Estimate	488353	384533

Upgradation of 22 KV Line from 0.03 to 55 sqmm AAAC conductor.

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	AAAC 55 mm ²	Rmt	3150	28.56	89964.00
2	RSJ 152x152, 10 m long	no	4	16586.00	66344.00
3	MS Channel 100x50x6 mm	Kg.	108	51.80	5594.40
4	MS angle 50x50x6 mm	Kg.	71	51.80	3677.80
5	M.S. Flats(50 X 10mm)	Kg.	45	48.50	2182.50
6	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
7	Tension Hardware for 100 sq.mm Conductor.	No.	6	341.00	2046.00
8	22 kV Pin Insulators with G.I. Pins	No.	12	336.00	4032.00
9	G.I.Wire 8 SWG/ 6 SWG	Kg.	16	57.40	918.40
10	Sleve Joints	No.	3	115.00	345.00
11	Danger Board in yard.	No.	4	50.00	200.00
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Concreting ration 1:3:6	cmt.	2	3027.00	6054.00
14	G.I.Barbed Wire `A' type.	Kg.	15	64.27	964.05
15	Black Bituminus Paint	Ltr.	6	85.00	510.00
16	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
17	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
18	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
19	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00
	Cost of material				196681.15

1	Transportation on material	4.00%	7867
2	T&P on material cost	1.00%	1967
3	Contingencies on material	2.50%	4917
5	Erection cost on material	15.00%	29502
6	Contractor supervision charges on material	5.00%	9834
7	Insurance , Labour & Finance Cost	3.00%	5900
	Service Cost		59988
	Sub-Total		256669
8	Turnkey Charges	5.00%	12833

Total**269502**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	342265	269502
Total Cost of the Estimate	342265	269502

Upgradation of 22 KV Line from 0.1 to 0.2

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	AAAC 232 mm ²	Rmt	3150	127.40	401310.00
2	RSJ 152x152, 13 m long	no	4	21562.00	86248.00
3	MS Channel 100x50x6 mm	Kg.	108	51.80	5594.40
4	MS angle 50x50x6 mm	Kg.	71	51.80	3677.80
5	M.S. Flats(50 X 10mm)	Kg.	45	48.50	2182.50
6	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
7	Tension Hardware for 200 sq.mm Conductor.	No.	6	590.00	3540.00
8	22 kV Pin Insulators with G.I. Pins	No.	12	336.00	4032.00
9	G.I.Wire 8 SWG/ 6 SWG	Kg.	16	57.40	918.40
10	Sleve Joints	No.	3	115.00	345.00
11	Danger Board in yard.	No.	4	50.00	200.00
12	Earthing Sets H.T	No.	4	342.00	1368.00
13	Concreting ration 1:3:6	cmt.	2	3027.00	6054.00
14	G.I.Barbed Wire `A' type.	Kg.	15	64.27	964.05
15	Black Bituminus Paint	Ltr.	6	85.00	510.00
16	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
17	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
18	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
19	Wedge connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	No	24	718.00	17232.00
	Cost of material				543921.15

1	Transportation on material	4.00%	21757
2	T&P on material cost	1.00%	5439
3	Contingencies on material	2.50%	13598
5	Erection cost on material	15.00%	81588
6	Contractor supervision charges on material	5.00%	27196
7	Insurance , Labour & Finance Cost	3.00%	16318
	Service Cost		165896
	Sub-Total		709817
8	Turnkey Charges	5.00%	35491

Total**745308**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	946532	745308
Total Cost of the Estimate	946532	745308

Replacement of old HT cable by new XLPE cable size 22 kV, 3 C, 300 sq. mm.

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	XLPE Cable 22 KV, 3 C / 300 mm sq.	Rmt	1000.00	1464.00	1464000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	22 kV Heat shrik Straight through joint (Al) kit for XLPE 3 C X 300 sqmm	Kit	4.00	24600.00	98400.00
5	22 kV Heat shrik Outdoor termination joint (Al) kit for XLPE 3 C X 300 sqmm	Kit	2.00	13715.00	27430.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Sundries	LS	1.00	810.00	810.00

Cost of material**1766700.00**

1	Transportation on material	4.00%	70668
2	T&P on material cost	1.00%	17667
3	Contigencies on material	2.50%	44168
5	Erection cost on material	15.00%	265005
6	Contractor supervision charges on material	5.00%	88335
7	Insurance , Labour & Finance Cost	3.00%	53001

Service Cost**538844****Sub-Total****2305544**

8	Turnkey Charges	5.00%	115277
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Total**2420821**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3074411	2420821
Total Cost of the Estimate	3074411	2420821

Replacement of old HT O/D jointing kit (Straight Through) for 22 kV, 3 C, 300 sq. mm.

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	22 kV Heat shrik Outdoor termination joint (Al) kit for XLPE 3 C X 300 sqmm	No	1	13715.00	13715.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				14525.00

1	Transportation on material	4.00%	581
2	T&P on material cost	1.00%	145
3	Contingencies on material	2.50%	363
5	Erection cost on material	15.00%	2179
6	Contractor supervision charges on material	5.00%	726
7	Insurance , Labour & Finance Cost	3.00%	436
	Service Cost		4430
	Sub-Total		18955
8	Turnkey Charges	5.00%	948

Total**19903**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	25276	19903
Total Cost of the Estimate	25276	19903

Item Code No. 5207

Replacement of old HT I/D termination joints for 22 kV, 3 C, 300 sq. mm. XLPE cable

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	22 kV Heat shrik Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No	1	12874.00	12874.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				13684.00

1	Transportation on material	4.00%	547
2	T&P on material cost	1.00%	137
3	Contigencies on material	2.50%	342
5	Erection cost on material	15.00%	2053
6	Contractor supervision charges on material	5.00%	684
7	Insurance , Labour & Finance Cost	3.00%	411
	Service Cost		4174
	Sub-Total		17858
8	Turnkey Charges	5.00%	893

Total **18751**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	23813	18751
Total Cost of the Estimate	23813	18751

Replacement of old HT I/D straight through joints for 22 kV, 3 C, 300 sq. mm. XLPE cable

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	22 kV Heat shrik Straight through joint (AI) kit for XLPE 3 C X 300 sqmm	No	1	24600.00	24600.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				25410.00

1	Transportation on material	4.00%	1016
2	T&P on material cost	1.00%	254
3	Contingencies on material	2.50%	635
5	Erection cost on material	15.00%	3812
6	Contractor supervision charges on material	5.00%	1271
7	Insurance , Labour & Finance Cost	3.00%	762
	Service Cost		7750
	Sub-Total		33160
8	Turnkey Charges	5.00%	1658

Total**34818**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	44218	34818
Total Cost of the Estimate	44218	34818

Upgradation of 11 KV Line 100 Sqmm conductor

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	RSJ 116x100, 10 m long	No.	4	10283.00	41132.00
2	MS Channel 100x50x6 mm	Kg.	13	51.80	673.40
3	M.S.Channel 75x40x6 mm	Kg.	119	51.80	6164.20
4	MS angle 50x50x6 mm	Kg.	16	51.80	828.80
5	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
6	11 kV Pin Insulators with G.I. Pins	No.	12	135.00	1620.00
7	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	6	322.00	1932.00
9	AAAC 100 mm ²	Rmt	3150.00	51.82	163233.00
10	Earthing Sets H.T	Set	4	342.00	1368.00
11	G.I.Barbed Wire `A' type.	Kg.	16	64.27	1028.32
12	Danger Board in yard.	No.	4	50.00	200.00
13	Concreting ration 1:3:6	Cmt.	3	3027.00	9081.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	20	57.40	1148.00
15	Black Bituminus Paint	Ltr.	6	85.00	510.00
16	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
17	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
18	Painting/Hardware & support with numbering of pole	LS	1	225.00	225.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
20	Wedge connectors				
a)	DOG TO DOG or equivalent AAAC	No	24	559.00	13416.00
	Cost of material				252035.22

1	Transportation on material	4.00%	10081
2	T&P on material cost	1.00%	2520
3	Contigencies on material	2.50%	6301
5	Erection cost on material	15.00%	37805
6	Contractor supervision charges on material	5.00%	12602
7	Insurance , Labour & Finance Cost	3.00%	7561
	Service Cost		76871
	Sub-Total		328906
8	Turnkey Charges	5.00%	16445

Total**345351**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	438592	345351
Total Cost of the Estimate	438592	345351

Upgradation of 11 KV Line 55 Sqmm conductor

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	RSJ 116x100, 10 m long	No.	4	10283.00	41132.00
2	MS Channel 100x50x6 mm	Kg.	13	51.80	673.40
3	M.S.Channel 75x40x6 mm	Kg.	119	51.80	6164.20
4	MS angle 50x50x6 mm	Kg.	16	51.80	828.80
5	M.S. Flats(50 X 10mm)	Kg.	37	48.50	1794.50
6	11 kV Pin Insulators with G.I. Pins	No.	12	135.00	1620.00
7	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	6	322.00	1932.00
9	AAAC 55 mm ²	Rmt	3150.00	28.56	89964.00
10	Earthing Sets H.T	Set	4	342.00	1368.00
11	G.I.Barbed Wire 'A' type.	Kg.	16	64.27	1028.32
12	Danger Board in yard.	No.	4	50.00	200.00
13	Concreting ration 1:3:6	Cmt.	3	3027.00	9081.00
14	G.I.Wire 8 SWG/ 6 SWG	Kg.	20	57.40	1148.00
15	Black Bituminus Paint	Ltr.	6	85.00	510.00
16	Red Oxide Paint for 2 coats	Ltr.	20	85.00	1700.00
17	Aluminium Paint for 1 coat	Ltr.	9	113.00	1017.00
18	Painting/Hardware & support with numbering of pole	LS	1	225.00	225.00
19	Sundries such as N/B, Washers, Welding etc.	LS	1	2900.00	2900.00
20	Wedge connectors				
a)	RABIT To RABIT or equivalent AAAC	No	24	114.00	2736.00
	Cost of material				168086.22

1	Transportation on material	4.00%	6723
2	T&P on material cost	1.00%	1681
3	Contigencies on material	2.50%	4202
5	Erection cost on material	15.00%	25213
6	Contractor supervision charges on material	5.00%	8404
7	Insurance , Labour & Finance Cost	3.00%	5043
	Service Cost		51266
	Sub-Total		219353
8	Turnkey Charges	5.00%	10968

Total**230320**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	292504	230320
Total Cost of the Estimate	292504	230320

Item Code No. 5316

Replacement of old HT cable by new XLPE cable size 11 kV, 3 C, 95 sq. mm.

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	XLPE Cable 11 KV, 3 C / 95 mm sq.	mtr	1000	592.00	592000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	11 kV heat shrinkable Straight through joint kit for 3 C X 95 sqmm	Kit	4.00	4182.00	16728.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 95 sqmm	Kit	2.00	1459.00	2918.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Sundries	LS	1	810.00	810.00
	Cost of Material				788516.00

1	Transportation on material	4.00%	31541
2	T&P on material cost	1.00%	7885
3	Contingencies on material	2.50%	19713
5	Erection cost on material	15.00%	118277
6	Contractor supervision charges on material	5.00%	39426
7	Insurance , Labour & Finance Cost	3.00%	23655
	Service Cost		240497
	Sub-Total		1029013
8	Turnkey Charges	5.00%	51451

Total **1080464**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1372176	1080464
Total Cost of the Estimate	1372176	1080464

Replacement of old HT cable by new XLPE cable size 11 kV, 3 C, 120 sq. mm.

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	XLPE Cable 11 KV, 3 C / 185 mm sq.	mtr	1000	858.00	858000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 95 sqmm	Kit	4.00	1459.00	5836.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 120 sqmm	Kit	2.00	1907.00	3814.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Sundries	LS	1	810.00	810.00
Cost of Material					1044520.00

1	Transportation on material	4.00%	41781
2	T&P on material cost	1.00%	10445
3	Contingencies on material	2.50%	26113
5	Erection cost on material	15.00%	156678
6	Contractor supervision charges on material	5.00%	52226
7	Insurance , Labour & Finance Cost	3.00%	31336
Service Cost			318579
Sub-Total			1363099
8	Turnkey Charges	5.00%	68155

Total**1431254**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1817674	1431254
Total Cost of the Estimate	1817674	1431254

Replacement of old HT cable by new XLPE cable size 11 kV, 3 C, 300 sq. mm.

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	XLPE Cable 11 KV, 3 C / 300 mm sq.	Rmt	1000.00	1194.00	1194000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	11 kV heat shrinkable Straight through joint kit for 3 C X 300 sqmm	Kit	4.00	5289.00	21156.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 300 sqmm	Kit	2.00	2030.00	4060.00
6	Sand	Cmt	250.00	222.00	55500.00
7	Sundries	LS	1.00	810.00	810.00

Cost of material**1396086.00**

1	Transportation on material	4.00%	55843
2	T&P on material cost	1.00%	13961
3	Contigencies on material	2.50%	34902
5	Erection cost on material	15.00%	209413
6	Contractor supervision charges on material	5.00%	69804
7	Insurance , Labour & Finance Cost	3.00%	41883

Service Cost**425806****Sub-Total****1821892**

8	Turnkey Charges	5.00%	91095
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Total**1912987**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	2429469	1912987
Total Cost of the Estimate	2429469	1912987

Replacement of old HT O/D jointing kit (Straight Through) for 11 kV, 3 C, 95 sq. mm.

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 95 sqmm	No	1	1459.00	1459.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				2269.00

1	Transportation on material	4.00%	91
2	T&P on material cost	1.00%	23
3	Contingencies on material	2.50%	57
5	Erection cost on material	15.00%	340
6	Contractor supervision charges on material	5.00%	113
7	Insurance , Labour & Finance Cost	3.00%	68
	Service Cost		692
	Sub-Total		2961
8	Turnkey Charges	5.00%	148

Total**3109**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3949	3109
Total Cost of the Estimate	3949	3109

Replacement of old HT O/D jointing kit (Straight Through) for 11 kV, 3 C, 120 sq. mm.

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 120 sqmm	No	1	1907.00	1907.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				2717.00

1	Transportation on material	4.00%	109
2	T&P on material cost	1.00%	27
3	Contingencies on material	2.50%	68
5	Erection cost on material	15.00%	408
6	Contractor supervision charges on material	5.00%	136
7	Insurance , Labour & Finance Cost	3.00%	82
	Service Cost		829
	Sub-Total		3546
8	Turnkey Charges	5.00%	177

Total**3723**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	4728	3723
Total Cost of the Estimate	4728	3723

Item Code No. 5322

Replacement of old HT O/D jointing kit (Straight Through) for 11 kV, 3 C, 240 sq. mm.

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 240 sqmm	No	1	2030.00	2030.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				2840.00

1	Transportation on material	4.00%	114
2	T&P on material cost	1.00%	28
3	Contingencies on material	2.50%	71
5	Erection cost on material	15.00%	426
6	Contractor supervision charges on material	5.00%	142
7	Insurance , Labour & Finance Cost	3.00%	85
	Service Cost		866
	Sub-Total		3706
8	Turnkey Charges	5.00%	185

Total **3892**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	4942	3892
Total Cost of the Estimate	4942	3892

Replacement of old HT O/D jointing kit (Straight Through) for 11 kV, 3 C, 300 sq. mm.

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 300 sqmm	No	1	2030.00	2030.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				2840.00

1	Transportation on material	4.00%	114
2	T&P on material cost	1.00%	28
3	Contingencies on material	2.50%	71
5	Erection cost on material	15.00%	426
6	Contractor supervision charges on material	5.00%	142
7	Insurance , Labour & Finance Cost	3.00%	85
	Service Cost		866
	Sub-Total		3706
8	Turnkey Charges	5.00%	185

Total **3892**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	4942	3892
Total Cost of the Estimate	4942	3892

Replacement of old HT I/D termination joints for 11 kV, 3 C, 95 sq. mm. XLPE cable

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	11 kV heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No	1	1169.00	1169.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				1979.00

1	Transportation on material	4.00%	79
2	T&P on material cost	1.00%	20
3	Contingencies on material	2.50%	49
5	Erection cost on material	15.00%	297
6	Contractor supervision charges on material	5.00%	99
7	Insurance , Labour & Finance Cost	3.00%	59
	Service Cost		604
	Sub-Total		2583
8	Turnkey Charges	5.00%	129

Total**2712**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3444	2712
Total Cost of the Estimate	3444	2712

Replacement of old HT I/D termination joints for 11 kV, 3 C, 120 sq. mm. XLPE cable

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	11 kV heat shrinkable Indoor termination joint kit for 3 C X 120 sqmm	No	1	1538.00	1538.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				2348.00

1	Transportation on material	4.00%	94
2	T&P on material cost	1.00%	23
3	Contingencies on material	2.50%	59
5	Erection cost on material	15.00%	352
6	Contractor supervision charges on material	5.00%	117
7	Insurance , Labour & Finance Cost	3.00%	70
	Service Cost		716
	Sub-Total		3064
8	Turnkey Charges	5.00%	153

Total**3217**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	4086	3217
Total Cost of the Estimate	4086	3217

Replacement of old HT I/D termination joints for 11 kV, 3 C, 240 sq. mm. XLPE cable

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	11 kV heat shrinkable Indoor termination joint kit for 3 C X 240 sqmm	No	1	1582.00	1582.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				2392.00

1	Transportation on material	4.00%	96
2	T&P on material cost	1.00%	24
3	Contingencies on material	2.50%	60
5	Erection cost on material	15.00%	359
6	Contractor supervision charges on material	5.00%	120
7	Insurance , Labour & Finance Cost	3.00%	72
	Service Cost		730
	Sub-Total		3122
8	Turnkey Charges	5.00%	156

Total**3278**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	4163	3278
Total Cost of the Estimate	4163	3278

Replacement of old HT I/D termination joints for 11 kV, 3 C, 300 sq. mm. XLPE cable

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No	1	1662.00	1662.00
2	Sundries	LS	1	810.00	810.00
	Cost of Material				2472.00

1	Transportation on material	4.00%	99
2	T&P on material cost	1.00%	25
3	Contingencies on material	2.50%	62
5	Erection cost on material	15.00%	371
6	Contractor supervision charges on material	5.00%	124
7	Insurance , Labour & Finance Cost	3.00%	74
	Service Cost		754
	Sub-Total		3226
8	Turnkey Charges	5.00%	161

Total**3387**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	4302	3387
Total Cost of the Estimate	4302	3387

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE Amoured 2C 16 Sqmm cable	Rmt	1000	52.00	52000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**94510.00**

1	Transportation on material	4.00%	3780
2	T&P on material cost	1.00%	945
3	Contigencies on material	2.50%	2363
5	Erection cost on material	15.00%	14177
6	Contractor supervision charges on material	5.00%	4726
7	Insurance , Labour & Finance Cost	3.00%	2835
Service Cost			28826
Sub-Total			123336
8	Turnkey Charges	5.00%	6167

Total**129502**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	164466	129502
Total Cost of the Estimate	164466	129502

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T.XLPE Armoured 3.5 Core cable 120 sq.mm.	Rmt	1000	329.00	329000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**371510.00**

1	Transportation on material	4.00%	14860
2	T&P on material cost	1.00%	3715
3	Contigencies on material	2.50%	9288
5	Erection cost on material	15.00%	55727
6	Contractor supervision charges on material	5.00%	18576
7	Insurance , Labour & Finance Cost	3.00%	11145
	Service Cost		113311
	Sub-Total		484821
8	Turnkey Charges	5.00%	24241

Total**509062**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	646502	509062
Total Cost of the Estimate	646502	509062

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE cable 3.5 Core 240 mm2	Rmt	1000	628.00	628000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**670510.00**

1	Transportation on material	4.00%	26820
2	T&P on material cost	1.00%	6705
3	Contigencies on material	2.50%	16763
5	Erection cost on material	15.00%	100577
6	Contractor supervision charges on material	5.00%	33526
7	Insurance , Labour & Finance Cost	3.00%	20115
	Service Cost		204506
	Sub-Total		875016
8	Turnkey Charges	5.00%	43751

Total**918766**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1166822	918766
Total Cost of the Estimate	1166822	918766

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE cable 3.5 Core 300 mm2	Rmt	1000	725.00	725000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**767510.00**

1	Transportation on material	4.00%	30700
2	T&P on material cost	1.00%	7675
3	Contigencies on material	2.50%	19188
5	Erection cost on material	15.00%	115127
6	Contractor supervision charges on material	5.00%	38376
7	Insurance , Labour & Finance Cost	3.00%	23025
	Service Cost		234091
	Sub-Total		1001601
8	Turnkey Charges	5.00%	50080

Total**1051681**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1335621	1051681
Total Cost of the Estimate	1335621	1051681

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE Armoured 3.5 Core cable 185 sq.mm.	Rmt	1000	490.00	490000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**532510.00**

1	Transportation on material	4.00%	21300
2	T&P on material cost	1.00%	5325
3	Contigencies on material	2.50%	13313
5	Erection cost on material	15.00%	79877
6	Contractor supervision charges on material	5.00%	26626
7	Insurance , Labour & Finance Cost	3.00%	15975
	Service Cost		162416
	Sub-Total		694926
8	Turnkey Charges	5.00%	34746

Total**729672**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	926674	729672
Total Cost of the Estimate	926674	729672

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt	1000	204.00	204000.00
2	R.C.C. Pipe 150 mm 2 M	No	30	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**246510.00**

1	Transportation on material	4.00%	9860
2	T&P on material cost	1.00%	2465
3	Contigencies on material	2.50%	6163
5	Erection cost on material	15.00%	36977
6	Contractor supervision charges on material	5.00%	12326
7	Insurance , Labour & Finance Cost	3.00%	7395
Service Cost			75186
Sub-Total			321696
8	Turnkey Charges	5.00%	16085

Total**337780**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	428977	337780
Total Cost of the Estimate	428977	337780

Cost Data for conversion of 1 Km 33 KV Overhead line by 3 C, 300 Sqmm XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	RT/U Rs.	Amount
1	XLPE Cable 33 KV, 3 C / 300 mm sq.	Rmt	1000.00	1737.00	1737000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	33 kV Heat shrik Straight through joint (Al) kit for XLPE 3 C X 300 sqmm	No.	4.00	36900.00	147600.00
5	33 kV Heat shrik Outdoor termination joint (Al) kit for XLPE 3 C X 300 sqmm	No.	2.00	19028.00	38056.00
6	Sand	Cmt.	250.00	222.00	55500.00

Cost of material**2098716.00**

1	Transportation on material	4.00%	83949
2	T&P on material cost	1.00%	20987
3	Contingencies on material	2.50%	52468
5	Erection cost on material	15.00%	314807
6	Contractor supervision charges on material	5.00%	104936
7	Insurance , Labour & Finance Cost	3.00%	62961
	Service Cost		640108
	Sub-Total		2738824
8	Turnkey Charges	5.00%	136941

Total**2875766**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3652186	2875766
Total Cost of the Estimate	3652186	2875766

Cost Data for conversion of 1 Km 22 KV Overhead line by 3 C, 300 Sqmm XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	RT/U Rs.	Amount
1	XLPE Cable 22 KV, 3 C / 300 mm sq.	Rmt	1000.00	1464.00	1464000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	22 kV Heat shrik Straight through joint (Al) kit for XLPE 3 C X 300 sqmm	No.	4.00	24600.00	98400.00
5	22 kV Heat shrik Outdoor termination joint (Al) kit for XLPE 3 C X 300 sqmm	No.	2.00	13715.00	27430.00
6	Sand	Cmt	250.00	222.00	55500.00

Cost of material**1765890.00**

1	Transportation on material	4.00%	70636
2	T&P on material cost	1.00%	17659
3	Contigencies on material	2.50%	44147
5	Erection cost on material	15.00%	264884
6	Contractor supervision charges on material	5.00%	88295
7	Insurance , Labour & Finance Cost	3.00%	52977
	Service Cost		538596
	Sub-Total		2304486
8	Turnkey Charges	5.00%	115224

Total**2419711**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3073002	2419711
Total Cost of the Estimate	3073002	2419711

Cost Data for conversion of 1 Km 22 KV Overhead line by 3 C, 95 Sqmm XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	RT/U Rs.	Amount
1	XLPE Cable 22 KV, 3 C / 95 mm sq.	Rmt	1000.00	846.00	846000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	22 KV st. through joints for 3 C / 95 mm sq.	No.	4.00	12077.00	48308.00
5	22 kV Heat shrink Indoor termination joint (AI) kit for XLPE 3 C X 95 sqmm	No.	2.00	9023.00	18046.00
6	Sand	Cmt	250.00	222.00	55500.00

Cost of material**1088414.00**

1	Transportation on material	4.00%	43537
2	T&P on material cost	1.00%	10884
3	Contingencies on material	2.50%	27210
5	Erection cost on material	15.00%	163262
6	Contractor supervision charges on material	5.00%	54421
7	Insurance , Labour & Finance Cost	3.00%	32652
	Service Cost		331966
	Sub-Total		1420380
8	Turnkey Charges	5.00%	71019

Total**1491399**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1894058	1491399
Total Cost of the Estimate	1894058	1491399

Cost Data for conversion of 1 Km 11 KV Overhead line by 3 C, 300 Sqmm XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	RT/U Rs.	Amount
1	XLPE Cable 11 KV, 3 C / 300 mm sq.	Rmt	1000.00	1194.00	1194000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	11 kV heat shrinkable Straight through joint kit for 3 C X 300 sqmm	No.	4.00	5289.00	21156.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 300 sqmm	No.	2.00	2030.00	4060.00
6	Sand	Cmt	250.00	222.00	55500.00

Cost of material**1395276.00**

1	Transportation on material	4.00%	55811
2	T&P on material cost	1.00%	13953
3	Contingencies on material	2.50%	34882
5	Erection cost on material	15.00%	209291
6	Contractor supervision charges on material	5.00%	69764
7	Insurance , Labour & Finance Cost	3.00%	41858
	Service Cost		425559
	Sub-Total		1820835
8	Turnkey Charges	5.00%	91042

Total**1911877**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	2428059	1911877
Total Cost of the Estimate	2428059	1911877

Cost Data for conversion of 1 Km 11 KV Overhead line by 3 C, 185 Sqmm XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	RT/U Rs.	Amount
1	XLPE Cable 11 KV, 3 C / 185 mm sq.	Rmt	1000.00	858.00	858000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	11 kV heat shrinkable Straight through joint kit for 3 C X 185 sqmm	No.	4.00	5043.00	20172.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 185 sqmm	No.	2.00	1907.00	3814.00
6	Sand	Cmt	250.00	222.00	55500.00

Cost of material**1058046.00**

1	Transportation on material	4.00%	42322
2	T&P on material cost	1.00%	10580
3	Contingencies on material	2.50%	26451
5	Erection cost on material	15.00%	158707
6	Contractor supervision charges on material	5.00%	52902
7	Insurance , Labour & Finance Cost	3.00%	31741
	Service Cost		322704
	Sub-Total		1380750
8	Turnkey Charges	5.00%	69038

Total**1449788**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1841212	1449788
Total Cost of the Estimate	1841212	1449788

Cost Data for conversion of 1 Km 11 KV Overhead line by 3 C, 95 Sqmm XLPE under ground Cable

Sr.No.	Particulars	Unit	Qty.	RT/U Rs.	Amount
1	XLPE Cable 11 KV, 3 C / 95 mm sq.	Rmt	1000.00	592.00	592000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Half round cement pipe (150mm X 1mtr)	No.	940.00	110.00	103400.00
4	11 kV heat shrinkable Straight through joint kit for 3 C X 95 sqmm	No.	4.00	4182.00	16728.00
5	11 kV heat shrinkable Outdoor termination joint kit for 3 C X 95 sqmm	No.	2.00	1459.00	2918.00
6	Sand	Cmt	250.00	222.00	55500.00

Cost of material**787706.00**

1	Transportation on material	4.00%	31508
2	T&P on material cost	1.00%	7877
3	Contingencies on material	2.50%	19693
5	Erection cost on material	15.00%	118156
6	Contractor supervision charges on material	5.00%	39385
7	Insurance , Labour & Finance Cost	3.00%	23631
	Service Cost		240250
	Sub-Total		1027956
8	Turnkey Charges	5.00%	51398

Total**1079354**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1370766	1079354
Total Cost of the Estimate	1370766	1079354

Conversion of Overhead LT Line to underground by 3.5 C, 300 sqmm XLPE cable

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	L.T. XLPE cable 3.5 Core 300 mm2	RMT	1000	725.00	725000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					767510.00
1	Transportation on material		4.00%		30700
2	T&P on material cost		1.00%		7675
3	Contigencies on material		2.50%		19188
5	Erection cost on material		15.00%		115127
6	Contractor supervision charges on material		5.00%		38376
7	Insurance , Labour & Finance Cost		3.00%		23025
Service Cost					234091
Sub-Total					1001601
8	Turnkey Charges		5.00%		50080
Total					1051681

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1335621	1051681
Total Cost of the Estimate	1335621	1051681

Conversion of Overhead LT Line to underground by 3.5 C, 240 sqmm XLPE cable

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	L.T. XLPE cable 3.5 Core 240 mm ²	RMT	1000	628.00	628000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**670510.00**

1	Transportation on material	4.00%	26820
2	T&P on material cost	1.00%	6705
3	Contigencies on material	2.50%	16763
5	Erection cost on material	15.00%	100577
6	Contractor supervision charges on material	5.00%	33526
7	Insurance , Labour & Finance Cost	3.00%	20115

Service Cost**204506****Sub-Total****875016**

8	Turnkey Charges	5.00%	43751
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Total**918766**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1166822	918766
Total Cost of the Estimate	1166822	918766

Conversion of Overhead LT Line to underground by 3.5 C, 185 sqmm XLPE cable

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	L.T. XLPE Armoured 3.5 Core cable185 sq.mm.	RMT	1000	490.00	490000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**532510.00**

1	Transportation on material	4.00%	21300
2	T&P on material cost	1.00%	5325
3	Contigencies on material	2.50%	13313
5	Erection cost on material	15.00%	79877
6	Contractor supervision charges on material	5.00%	26626
7	Insurance , Labour & Finance Cost	3.00%	15975

Service Cost**162416****Sub-Total****694926**

8	Turnkey Charges	5.00%	34746
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Total**729672**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	926674	729672
Total Cost of the Estimate	926674	729672

Cost Dat Conversion of overhead LT Line to underground 3.5 x 120 sqmm cable for 1 Km

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt	1000	329.00	329000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**371510.00**

1	Transportation on material	4.00%	14860
2	T&P on material cost	1.00%	3715
3	Contigencies on material	2.50%	9288
5	Erection cost on material	15.00%	55727
6	Contractor supervision charges on material	5.00%	18576
7	Insurance , Labour & Finance Cost	3.00%	11145
	Service Cost		113311
	Sub-Total		484821
8	Turnkey Charges	5.00%	24241

Total**509062**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	646502	509062
Total Cost of the Estimate	646502	509062

Coverion of Overhead LT Line to underground by 3.5 C, 70 sqmm XLPE cable

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	RMT	1000	204.00	204000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
2	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**246510.00**

1	Transportation on material	4.00%	9860
2	T&P on material cost	1.00%	2465
3	Contigencies on material	2.50%	6163
5	Erection cost on material	15.00%	36977
6	Contractor supervision charges on material	5.00%	12326
7	Insurance , Labour & Finance Cost	3.00%	7395

Service Cost**75186****Sub-Total****321696**

8	Turnkey Charges	5.00%	16085
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Total**337780**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	428977	337780
Total Cost of the Estimate	428977	337780

Cost Dat Conversion of overhead LT Line to underground 3.5 x 70 sqmm cable for 1 Km

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T.XLPE Armoured 3.5 Core cable 70 sq.mm.	Rmt	1000	204.00	204000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**246510.00**

1	Transportation on material	4.00%	9860
2	T&P on material cost	1.00%	2465
3	Contigencies on material	2.50%	6163
5	Erection cost on material	15.00%	36977
6	Contractor supervision charges on material	5.00%	12326
7	Insurance , Labour & Finance Cost	3.00%	7395
	Service Cost		75186
	Sub-Total		321696
8	Turnkey Charges	5.00%	16085

Total**337780**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	428977	337780
Total Cost of the Estimate	428977	337780

Coverion of Overhead LT Line to underground by 3.5 C, 50 sqmm XLPE cable

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	RMT	1000	150.00	150000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**192510.00**

1	Transportation on material	4.00%	7700
2	T&P on material cost	1.00%	1925
3	Contigencies on material	2.50%	4813
5	Erection cost on material	15.00%	28877
6	Contractor supervision charges on material	5.00%	9626
7	Insurance , Labour & Finance Cost	3.00%	5775

Service Cost**58716****Sub-Total****251226**

8	Turnkey Charges	5.00%	12561
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Total**263787**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	335006	263787
Total Cost of the Estimate	335006	263787

Coverion of Overhead LT Line to underground by 3.5 C, 16 sqmm XLPE cable

Sr.No	Description of Material	Unit	Qty.	RT/U Rs.	Amount
1	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	1000	78.00	78000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00

Cost of material**120510.00**

1	Transportation on material	4.00%	4820
2	T&P on material cost	1.00%	1205
3	Contigencies on material	2.50%	3013
5	Erection cost on material	15.00%	18077
6	Contractor supervision charges on material	5.00%	6026
7	Insurance , Labour & Finance Cost	3.00%	3615

Service Cost**36756****Sub-Total****157266**

8	Turnkey Charges	5.00%	7863
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Total**165129**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	209712	165129
Total Cost of the Estimate	209712	165129

Cost Dat Conversion of overhead LT Line to underground 2 C x 16 sqmm cable for 1 Km

Sr.No.	Particulars	Unit	Qty	Rate (Rs.)	Amount
1	L.T. XLPE Amoured 2C 16 Sqmm cable	Rmt	1000	52.00	52000.00
2	R.C.C. Pipe 150 mm 2 M	No	30.00	572.00	17160.00
3	Misc. (Bricks,sand,tremination kit and etc.)	LS	1	25350.00	25350.00
Cost of material					94510.00
1	Transportation on material		4.00%		3780
2	T&P on material cost		1.00%		945
3	Contigencies on material		2.50%		2363
5	Erection cost on material		15.00%		14177
6	Contractor supervision charges on material		5.00%		4726
7	Insurance , Labour & Finance Cost		3.00%		2835
Service Cost					28826
Sub-Total					123336
8	Turnkey Charges		5.00%		6167
Total					129502

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	164466	129502
Total Cost of the Estimate	164466	129502

Estimate for R. & M work of 33/11 KV Sub-Station [Indoor to Outdoor] 2 x 5 MVA

Sr no.	Description	Unit	Qty.	Rate	Total cost
1	Renovation of existing 33/11 KV indoor S/S to out door S/S as specified in relevant sections of volume II, sheet no.28.1of volume III & drawings in volume IV	No.	1	5166459.50	5166459.50
Total					5166459.50

1	Transportation on material	4.00%	206658
2	T&P on material cost	1.00%	51665
3	Contingencies on material	2.50%	129161
5	Erection cost on material	5.00%	258323
6	Contractor supervision charges on material	5.00%	258323
7	Insurance , Labour & Finance Cost	3.00%	154994
Service Cost			1059124
Sub-Total			6225584
8	Turnkey Charges	5.00%	311279

Total**6536863**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	8321100	6536863
Total Cost of the Estimate	8321100	6536863

Estimate For R. & M. work [indoor to Outdoor] at 33 KV Sub-Station

Sr.No.	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
11 KV SIDE					
1	11 kv 250 MVA OD Switchgears comprising of 1 Incomer and 3 single feeder with associated OD panels, Islators, C.T. & P.T. etc.	Set	2	852243.00	1704486.00
2	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
3	11 KV OD type VCB with directional relay with Bus coupler complete	Set	1	472539.00	472539.00
4	Take off structure for 3 outgoing feeder as per Sheet:A	No.	1	489026.40	489026.40
5	11 kv SF6, Motorized, SCADA Compatible RMU 2 Iso + 1 Br	Set	2	349751.00	699502.00
6	11 kv Pin Insulators with G.I. Pins	No.	18	135.00	2430.00
7	XLPE Cable 11 KV, 3 C / 300 mm sq.	Rmt	400	1194.00	477600.00
8	11 kV heat shrinkable Straight through joint kit for 3 C X 300 sqmm	No.	8	5289.00	42312.00
9	AAAC 232 mm2	Rmt	300	127.40	38220.00
10	Clamps and Connectors as per Sheet:B	No.	1	126395.00	126395.00
11	Structure for 11 KV Main Bus as per Sheet:C	No.	1	228565.00	228565.00
12	Station Transformer 11/0.4 KV 100 KVA as per sheet:E	No.	1	209024.20	209024.20
13	Control cables for S/S as per Sheet :D	No.	1	173825.90	173825.90
14	Earthing works as per sheet :F	No.	1	272973.00	272973.00
15	Concreting ration 1:3:6	CUM	75	3027.00	227025.00
Cost of material					5166459.50

Sheet: A

Estimate for Take off structure for 11 KV Feeders 3 outlets at 1x5 MVA,33/11 KV Sub Str.

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	16	9254.00	148064.00
2	MS Channel 100x50x6 mm	Kg.	2130.00	51.80	110334.00
3	MS angle 50x50x6 mm	Kg.	100.00	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	150.00	48.50	7275.00
5	11KV A.B. Switch, 400 A	Nos.	10	9240.00	92400.00
6	Disc Insulator 11 KV 70 KN	Nos.	72	344.00	24768.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	72	322.00	23184.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	18	135.00	2430.00
9	Earthing Sets H.T	Sets	6	342.00	2052.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	6	1268.00	7608.00
11	AAAC 100 mm2	Rmt.	200.00	51.82	10364.00
12	G.I.Strip (25 X 3 mm)	Kg.	80.00	66.78	5342.40
13	G.I.Nut Bolts	Kg.	50.00	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	15.00	3027.00	45405.00
15	Miscellaneous material	LS	1	475.00	475.00
				Total:	489026.40

Sheet: B

Estimate for Crimping Type Clamps & Connectors at 2 x 5 MVA, 3311 kv sub strn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	20	718.00	14360.00
b)	DOG TO DOG or equivalent AAAC	Nos.	60	559.00	33540.00
2	T-Connector for 100 sq mm conductor	Nos.	47	733.00	34451.00
3	T-Connector for 200 sq mm conductor(Compression type)	Nos.	9	3352.00	30168.00
4	T Connectors suitable for 200 sqmm twin conductor	Nos.	18	865.00	15570.00
5	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	126395.00

Sheet: C

Estimate for Structure of 11 KV Main Bus at 2x5 MVA, 33/11 KV Sub-Station (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	RSJ 152x152, 8 m long	No.	8	13269.00	106152.00
2	MS Channel 100x50x6 mm	Kg.	650	51.80	33670.00
3	MS Flat 75x10 mm	Kg.	100	48.50	4850.00
4	Concreting ration 1:3:6	Cmt.	7	3027.00	21189.00
5	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
6	Strain Hardware for 0.2 ACSR or equivalent AAAC for twin conductor	No.	12	463.00	5556.00
7	AAAC 232 mm2	Rmt.	400	127.40	50960.00
8	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	228565.00

Sheet: D

Estimate for multistand control cable

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Amoured 2C 16 Sqmm cable	Rmt	200	52.00	10400.00
6	PVC pipe 110 mm dia 4Kg/sqcm pressure	Rmt	70	106.00	7420.00
7	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	173825.90

Sheet: E

Estimate for 100 KVA, 11/0.43 KV Station Transformer for 1x5 MVA S/S. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate in Rs.	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	130	51.80	6734.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	20	204.00	4080.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Bentonite clay	Kg.	225	13.00	2925.00
15	Plinth for station Transformer	Cmt	7.6	3027.00	23005.20
16	AAAC 55 mm2	Mtr	30	28.56	856.80
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	209024.20

Sheet: F

Estimate for Earthing Work

Sr.No.	Description of Material	Unit	Qty.	Rate in Rs.	Amt.Rs.
1	MS Flat 75x10 mm	Kg.	800	48.50	38800.00
2	M.S. Flats(50 X 10mm)	Kg	700	48.50	33950.00
3	G.I.Strip (25 X 3 mm)	Kg	500	66.78	33390.00
4	Earthing Sets H.T with clamp	Set	20	7080.00	141600.00
5	Bentonite clay	Kg.	1500	13.00	19500.00
6	RCC Ring work for earthing pits	No.	20	266.00	5320.00
7	Welding Rods	No.	50	3.50	175.00
8	Hiring of welding machine	No.	1	238.00	238.00
				Total:	272973.00

Item Code No. 5705A					
Replacement of 33 kV Ct 200-100/1-1-1 A, 3 Core					
Sr.No	Description	Unit	Qty.	Rate	Amount
1	C.T.-33KV200-100/1-1-1A/3Core	No	1	23853.00	23853.00
	Cost of Material				23853.00

1	Transportation on material	4.00%	954
2	T&P on material cost	1.00%	239
3	Contigencies on material	2.50%	596
5	Erection cost on material	5.00%	1193
6	Contractor supervision charges on material	5.00%	1193
7	Insurance , Labour & Finance Cost	3.00%	716
	Service Cost		4890
	Sub-Total		28743
8	Turnkey Charges	5.00%	1437

Total **30180**

Particulars	DPR Amount	Tender/ Estimate Amount
		61.06%
Cost with overheads on Material	38418	30180
Total Cost of the Estimate	38418	30180

Item Code No. 5705B					
Replacement of 33 kV Ct 400-200/1-1-1 A, 3 Core					
Sr.No	Description	Unit	Qty.	Rate	Amount
1	33 kV C. T. (400-200/1-1-1)	No	1	25011.00	25011.00
	Cost of Material				25011.00

1	Transportation on material	4.00%	1000
2	T&P on material cost	1.00%	250
3	Contingencies on material	2.50%	625
5	Erection cost on material	5.00%	1251
6	Contractor supervision charges on material	5.00%	1251
7	Insurance , Labour & Finance Cost	3.00%	750
	Service Cost		5127
	Sub-Total		30138
8	Turnkey Charges	5.00%	1507

Total **31645**

Particulars	DPR Amount	Tender/ Estimate Amount
		61.06%
Cost with overheads on Material	40283	31645
Total Cost of the Estimate	40283	31645

Item Code No. 5707A

Replacement of 11 kV Ct 400-200/5-5 A, 3 Core O/D

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	11 KV CT 400 - 200 / 5 - 5 Outdoor	No	1	10611.00	10611.00
	Cost of Material				10611.00

1	Transportation on material	4.00%	424
2	T&P on material cost	1.00%	106
3	Contigencies on material	2.50%	265
5	Erection cost on material	5.00%	531
6	Contractor supervision charges on material	5.00%	531
7	Insurance , Labour & Finance Cost	3.00%	318
	Service Cost		2175
	Sub-Total		12786
8	Turnkey Charges	5.00%	639

Total

13426

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	17090	13426
Total Cost of the Estimate	17090	13426

Item Code No. 5707B

Replacement of 11 kV Ct 400-200-100/5-5-5 A, 3 Core I/D

Sr.No.	Description	Unit	Qty.	Rate	Amount
1	CT - 11 KV 400 - 200 - 100/ 5-5-5 A / 3 Core I/D	No	1	14235.00	14235.00
	Cost of Material				14235.00

1	Transportation on material	4.00%	569
2	T&P on material cost	1.00%	142
3	Contigencies on material	2.50%	356
5	Erection cost on material	5.00%	712
6	Contractor supervision charges on material	5.00%	712
7	Insurance , Labour & Finance Cost	3.00%	427
	Service Cost		2918
	Sub-Total		17153
8	Turnkey Charges	5.00%	858

Total **18011**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	22927	18011
Total Cost of the Estimate	22927	18011

Item Code No. 5708

Replacement of 33 kV PT

Sr.No.	Description	Unit	Qty	Rate	Amt
1	33 KV P.T.	No	1	18876.00	18876.00
	Cost of material				18876.00

1	Transportation on material	4.00%	755
2	T&P on material cost	1.00%	189
3	Contigencies on material	2.50%	472
5	Erection cost on material	5.00%	944
6	Contractor supervision charges on material	5.00%	944
7	Insurance , Labour & Finance Cost	3.00%	566
	Service Cost		3870
	Sub-Total		22746
8	Turnkey Charges	5.00%	1137

Total **23883**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	30402	23883
Total Cost of the Estimate	30402	23883

Item Code No. 5709

Replacement of 22 kV PT

Sr.No.	Description	Unit	Qty	Rate	Amt
1	22 KV P.T.	No	1	17855.00	17855.00
	Cost of material				17855.00

1	Transportation on material	4.00%	714
2	T&P on material cost	1.00%	179
3	Contigencies on material	2.50%	446
5	Erection cost on material	5.00%	893
6	Contractor supervision charges on material	5.00%	893
7	Insurance , Labour & Finance Cost	3.00%	536
	Service Cost		3660
	Sub-Total		21515
8	Turnkey Charges	5.00%	1076

Total **22591**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	28757	22591
Total Cost of the Estimate	28757	22591

Item Code No. 5710

Replacement of 11 kV PT

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11 KV PT	Set	1	8965.00	8965.00
	Cost of material				8965.00

1	Transportation on material	4.00%	359
2	T&P on material cost	1.00%	90
3	Contigencies on material	2.50%	224
5	Erection cost on material	5.00%	448
6	Contractor supervision charges on material	5.00%	448
7	Insurance , Labour & Finance Cost	3.00%	269
	Service Cost		1838
	Sub-Total		10803
8	Turnkey Charges	5.00%	540

Total **11343**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	14439	11343
Total Cost of the Estimate	14439	11343

Item Code No. 5714

Replacement of 11 kV VCB 400Amp (Indoor Type)

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11 KV VCB 400 A Indoor	Set	1	281346.00	281346.00
	Cost of material				281346.00

1	Transportation on material	4.00%	11254
2	T&P on material cost	1.00%	2813
3	Contigencies on material	2.50%	7034
5	Erection cost on material	5.00%	14067
6	Contractor supervision charges on material	5.00%	14067
7	Insurance , Labour & Finance Cost	3.00%	8440
	Service Cost		57676
	Sub-Total		339022
8	Turnkey Charges	5.00%	16951

Total

355973

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	453136	355973
Total Cost of the Estimate	453136	355973

Item Code No. 5715

Replacement of 11 kV VCB 400Amp (Outdoor Type)

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11 KV VCB 400 A Outdoor	Set	1	103600.00	103600.00
	Cost of material				103600.00

1	Transportation on material	4.00%	4144
2	T&P on material cost	1.00%	1036
3	Contigencies on material	2.50%	2590
5	Erection cost on material	5.00%	5180
6	Contractor supervision charges on material	5.00%	5180
7	Insurance , Labour & Finance Cost	3.00%	3108
	Service Cost		21238
	Sub-Total		124838
8	Turnkey Charges	5.00%	6242

Total

131080

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	166858	131080
Total Cost of the Estimate	166858	131080

Replacement of 11 kV VCB 800Amp (Indoor Type)

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11 KV VCB 800 A Indoor	Set	1	288818.00	288818.00
	Cost of material				288818.00

1	Transportation on material	4.00%	11553
2	T&P on material cost	1.00%	2888
3	Contigencies on material	2.50%	7220
5	Erection cost on material	5.00%	14441
6	Contractor supervision charges on material	5.00%	14441
7	Insurance , Labour & Finance Cost	3.00%	8665
	Service Cost		59208
	Sub-Total		348026
8	Turnkey Charges	5.00%	17401

Total**365427**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	465170	365427
Total Cost of the Estimate	465170	365427

Item Code No. 5717

Replacement of 11 kV VCB 800Amp (Ourdoor Type)

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11 KV VCB 800 A Outdoor	Set	1	117466.00	117466.00
	Cost of material				117466.00

1	Transportation on material	4.00%	4699
2	T&P on material cost	1.00%	1175
3	Contigencies on material	2.50%	2937
5	Erection cost on material	5.00%	5873
6	Contractor supervision charges on material	5.00%	5873
7	Insurance , Labour & Finance Cost	3.00%	3524
	Service Cost		24081
	Sub-Total		141547
8	Turnkey Charges	5.00%	7077

Total

148624

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	189191	148624
Total Cost of the Estimate	189191	148624

Item Code No. 5718

Replacement of 33 kV Isolator 800Amp (With EB)

Sr.No.	Description	Unit	Qty	Rate	Amt
1	33 KV Isolators with EB (800 A)	Set	1	55190.00	55190.00
	Cost of material				55190.00

1	Transportation on material	4.00%	2208
2	T&P on material cost	1.00%	552
3	Contigencies on material	2.50%	1380
5	Erection cost on material	5.00%	2760
6	Contractor supervision charges on material	5.00%	2760
7	Insurance , Labour & Finance Cost	3.00%	1656
	Service Cost		11314
	Sub-Total		66504
8	Turnkey Charges	5.00%	3325

Total

69829

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	88889	69829
Total Cost of the Estimate	88889	69829

Item Code No. 5720

Replacement of 11 kV Isolator Without EB

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11 KV Isolators without EB (800 Amp.)	Set	1	26630.00	26630.00
	Cost of material				26630.00

1	Transportation on material	4.00%	1065
2	T&P on material cost	1.00%	266
3	Contigencies on material	2.50%	666
5	Erection cost on material	5.00%	1332
6	Contractor supervision charges on material	5.00%	1332
7	Insurance , Labour & Finance Cost	3.00%	799
	Service Cost		5459
	Sub-Total		32089
8	Turnkey Charges	5.00%	1604

Total **33694**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	42890	33694
Total Cost of the Estimate	42890	33694

Item Code No. 5721

Replacement of 22 kV Isolator Without EB

Sr.No.	Description	Unit	Qty	Rate	Amt
1	22 KV Isolators without EB (800 Amp.)	Set	1	35680.00	35680.00
	Cost of material				35680.00

1	Transportation on material	4.00%	1427
2	T&P on material cost	1.00%	357
3	Contigencies on material	2.50%	892
5	Erection cost on material	5.00%	1784
6	Contractor supervision charges on material	5.00%	1784
7	Insurance , Labour & Finance Cost	3.00%	1070
	Service Cost		7314
	Sub-Total		42994
8	Turnkey Charges	5.00%	2150

Total **45144**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	57466	45144
Total Cost of the Estimate	57466	45144

Item Code No. 5722

Replacement of 33 kV Isolator Without EB

Sr.No.	Description	Unit	Qty	Rate	Amt
1	33 KV Isolators without EB (800 Amp.)	Set	1	50510.00	50510.00
	Cost of material				50510.00

1	Transportation on material	4.00%	2020
2	T&P on material cost	1.00%	505
3	Contigencies on material	2.50%	1263
5	Erection cost on material	5.00%	2526
6	Contractor supervision charges on material	5.00%	2526
7	Insurance , Labour & Finance Cost	3.00%	1515
	Service Cost		10355
	Sub-Total		60865
8	Turnkey Charges	5.00%	3043

Total **63908**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	81351	63908
Total Cost of the Estimate	81351	63908

Replacement of 22 kV Lightning Arrestor (Station type)

Sr.No.	Description	Unit	Qty	Rate	Amt
1	22 KV Lightning Arrestors (Station type)	Set	1	11884.00	11884.00
	Cost of material				11884.00

1	Transportation on material	4.00%	475
2	T&P on material cost	1.00%	119
3	Contigencies on material	2.50%	297
5	Erection cost on material	5.00%	594
6	Contractor supervision charges on material	5.00%	594
7	Insurance , Labour & Finance Cost	3.00%	357
	Service Cost		2436
	Sub-Total		14320
8	Turnkey Charges	5.00%	716

Total**15036**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	19140	15036
Total Cost of the Estimate	19140	15036

Replacement of 33 kV Lightning Arrestor (Station type)

Sr.No.	Description	Unit	Qty	Rate	Amt
1	33 KV Lightning Arrestors (Station type)	Set	1	13571.00	13571.00
	Cost of material				13571.00

1	Transportation on material	4.00%	543
2	T&P on material cost	1.00%	136
3	Contigencies on material	2.50%	339
5	Erection cost on material	5.00%	679
6	Contractor supervision charges on material	5.00%	679
7	Insurance , Labour & Finance Cost	3.00%	407
	Service Cost		2782
	Sub-Total		16353
8	Turnkey Charges	5.00%	818

Total

17171

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	21857	17171
Total Cost of the Estimate	21857	17171

Replacement of 22 kV Lightning Arrester (Screw type)

Sr.No.	Description	Unit	Qty	Rate	Amt
1	22 KV Lightning Arrestors (Screw type)	Set	1	8568.00	8568.00
	Cost of material				8568.00

1	Transportation on material	4.00%	343
2	T&P on material cost	1.00%	86
3	Contigencies on material	2.50%	214
5	Erection cost on material	5.00%	428
6	Contractor supervision charges on material	5.00%	428
7	Insurance , Labour & Finance Cost	3.00%	257
	Service Cost		1756
	Sub-Total		10324
8	Turnkey Charges	5.00%	516

Total**10841**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	13800	10841
Total Cost of the Estimate	13800	10841

Replacement of C&R pannel with differential protection for 33 kV

Sr.No.	Description	Unit	Qty	Rate	Amt
1	C&R panel for 33 KV Transformer with Diff. Protection	Set	1	62334.00	62334.00
	Cost of material				62334.00

1	Transportation on material	4.00%	2493
2	T&P on material cost	1.00%	623
3	Contigencies on material	2.50%	1558
5	Erection cost on material	5.00%	3117
6	Contractor supervision charges on material	5.00%	3117
7	Insurance , Labour & Finance Cost	3.00%	1870
	Service Cost		12778
	Sub-Total		75112
8	Turnkey Charges	5.00%	3756

Total**78868**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	100395	78868
Total Cost of the Estimate	100395	78868

Item Code No. 5729

Replacement of control pannel 22 kV

Sr.No.	Description	Unit	Qty	Rate	Amt
1	Replacement of Control Panel 22 KV	Set	1	65982.00	65982.00
	Cost of material				65982.00

1	Transportation on material	4.00%	2639
2	T&P on material cost	1.00%	660
3	Contigencies on material	2.50%	1650
5	Erection cost on material	5.00%	3299
6	Contractor supervision charges on material	5.00%	3299
7	Insurance , Labour & Finance Cost	3.00%	1979
	Service Cost		13526
	Sub-Total		79508
8	Turnkey Charges	5.00%	3975

Total **83484**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	106271	83484
Total Cost of the Estimate	106271	83484

Item Code No. 5732

Replacement 30 V, 100 AH Lead Acid Battery sets

Sr.No.	Description	Unit	Qty	Rate	Amt
1	30 V, 100 AH Lead Acid Battery sets	No.	1	36000.00	36000.00
	Cost of material				36000.00

1	Transportation on material	4.00%	1440
2	T&P on material cost	1.00%	360
3	Contigencies on material	2.50%	900
5	Erection cost on material	5.00%	1800
6	Contractor supervision charges on material	5.00%	1800
7	Insurance , Labour & Finance Cost	3.00%	1080
	Service Cost		7380
	Sub-Total		43380
8	Turnkey Charges	5.00%	2169

Total **45549**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	57982	45549
Total Cost of the Estimate	57982	45549

Replacement Battery chargers suitable for above

Sr.No.	Description	Unit	Qty	Rate	Amt
1	Battery chargers suitable for above	No	1	36000.00	36000.00
	Cost of material				36000.00

1	Transportation on material	4.00%	1440
2	T&P on material cost	1.00%	360
3	Contigencies on material	2.50%	900
5	Erection cost on material	5.00%	1800
6	Contractor supervision charges on material	5.00%	1800
7	Insurance , Labour & Finance Cost	3.00%	1080
	Service Cost		7380
	Sub-Total		43380
8	Turnkey Charges	5.00%	2169

Total**45549**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	57982	45549
Total Cost of the Estimate	57982	45549

Replacement of Battery with Battery Charger

Sr.No.	Description	Unit	Qty	Rate	Amt
1	30 V, 100 AH Lead Acid Battery sets	No	1	36000.00	36000.00
2	Battery chargers suitable for above	No	1	36000.00	36000.00
Cost of material					72000.00

1	Transportation on material	4.00%	2880
2	T&P on material cost	1.00%	720
3	Contigencies on material	2.50%	1800
5	Erection cost on material	5.00%	3600
6	Contractor supervision charges on material	5.00%	3600
7	Insurance , Labour & Finance Cost	3.00%	2160
Service Cost			14760
Sub-Total			86760
8	Turnkey Charges	5.00%	4338

Total**91098**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	115963	91098
Total Cost of the Estimate	115963	91098

Item Code No. 5740

Replacement of I/D Switchgear, 11kV, 250 MVA with 2 I/C + 8 OG + 1 B/C

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11kV I D switchgear (2 I/c+1 B/c+8O/G)	Set	1	3117222.00	3117222.00
	Cost of material				3117222.00

1	Transportation on material	4.00%	124689
2	T&P on material cost	1.00%	31172
3	Contigencies on material	2.50%	77931
5	Erection cost on material	5.00%	155861
6	Contractor supervision charges on material	5.00%	155861
7	Insurance , Labour & Finance Cost	3.00%	93517
	Service Cost		639031
	Sub-Total		3756253
8	Turnkey Charges	5.00%	187813

Total

3944065

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	5020598	3944065
Total Cost of the Estimate	5020598	3944065

Item Code No. 5741

Replacement of O/D Switchgear, 11kV, 250 MVA with 1 I/C + 3 OG +1 B/C

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11 KV 250 MVA OD switchgear comprising of one incomer ,3 O/G & 1 B/C with associated OD panels, Isolators, CT & PT etc.	Set	1	1069860.00	1069860.00
	Cost of material				1069860.00

1	Transportation on material	4.00%	42794
2	T&P on material cost	1.00%	10699
3	Contingencies on material	2.50%	26747
5	Erection cost on material	5.00%	53493
6	Contractor supervision charges on material	5.00%	53493
7	Insurance , Labour & Finance Cost	3.00%	32096
	Service Cost		219321
	Sub-Total		1289181
8	Turnkey Charges	5.00%	64459

Total **1353640**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	1723117	1353640
Total Cost of the Estimate	1723117	1353640

Item Code No. 5742

Replacement of O/D Switchgear, 11kV, 250 MVA with 2 I/C + 4 OG

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11 KV 250 MVA OD switchgear comprising of 2 incomer & 4 single feeders with associated OD pannels , Isolators CT & PT etc	Set	1	1497803.00	1497803.00
	Cost of material				1497803.00

1	Transportation on material	4.00%	59912
2	T&P on material cost	1.00%	14978
3	Contigencies on material	2.50%	37445
5	Erection cost on material	5.00%	74890
6	Contractor supervision charges on material	5.00%	74890
7	Insurance , Labour & Finance Cost	3.00%	44934
	Service Cost		307050
	Sub-Total		1804853
8	Turnkey Charges	5.00%	90243

Total **1895095**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	2412362	1895095
Total Cost of the Estimate	2412362	1895095

Item Code No. 5743

Replacement of O/D Switchgear, 11kV, 250 MVA with 1 I/C + 1 OG

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11 KV 250 MVA O.D. Switch gear with one I/C+ one O/G	Set	1	427944.00	427944.00
	Cost of material				427944.00

1	Transportation on material	4.00%	17118
2	T&P on material cost	1.00%	4279
3	Contigencies on material	2.50%	10699
5	Erection cost on material	5.00%	21397
6	Contractor supervision charges on material	5.00%	21397
7	Insurance , Labour & Finance Cost	3.00%	12838
	Service Cost		87729
	Sub-Total		515673
8	Turnkey Charges	5.00%	25784

Total

541456

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	689247	541456
Total Cost of the Estimate	689247	541456

Item Code No. 5744

Replacement of I/D Switchgear, 11kV, 500 MVA with 2 I/C + 8 OG + 1 B/C

Sr.No.	Description	Unit	Qty	Rate	Amt
1	11kV I D switchgear (2 I/c+1 B/c+8O/G)	Set	1	3117222.00	3117222.00
	Cost of material				3117222.00

1	Transportation on material	4.00%	124689
2	T&P on material cost	1.00%	31172
3	Contigencies on material	2.50%	77931
5	Erection cost on material	5.00%	155861
6	Contractor supervision charges on material	5.00%	155861
7	Insurance , Labour & Finance Cost	3.00%	93517
	Service Cost		639031
	Sub-Total		3756253
8	Turnkey Charges	5.00%	187813

Total

3944065

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	5020598	3944065
Total Cost of the Estimate	5020598	3944065

Sr. No.	Description of Material	Unit	QTY	Rate/Unit	Rs.	Amount	Rs.
1	33 KV Isolators without EB (800 Amp.)	Set	1.00	50510.00			50510.00
	Cost of material						50510.00

1	Transportation on material	4.00%					2020
2	T&P on material cost	1.00%					505
3	Contigencies on material	2.50%					1263
5	Erection cost on material	5.00%					2526
6	Contractor supervision charges on material	5.00%					2526
7	Insurance , Labour & Finance Cost	3.00%					1515
	Service Cost						10355
	Sub-Total						60865
8	Turnkey Charges	5.00%					3043

Total**63908**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	81351	63908
Total Cost of the Estimate	81351	63908

33 kV Isolator ,800 A without EB with structure and PT

Sr. No.	Description of Material	Unit	QTY	Rate/Unit	Rs.	Amount	Rs.
1	33 KV P.T.	No	3	18876.00			56628.00
2	33 KV Isolators without EB (800 Amp.)	Set	1	50510.00			50510.00
4	AAAC 100 mm2	mtr	300.00	51.82			15546.00
3	Structure for 33 KV PT	Kg	315	51.80			16317.00
5	Marshalling Box	No	1	4284.00			4284.00
6	Armoured Copper control cable 4C X 2.5 Sq mm	m	50	87.60			4380.00
7	Disc Insulator 11 KV 70 KN	No	18	344.00			6192.00
8	Strain Hardware for Dog0.1 or Equ.AAAC.	Set	3	322.00			966.00
9	G.I.Nut Boltss Washer & Misc Material	LS	1	2060.00			2060.00
	Cost of material			Total			156883.00

1	Transportation on material	4.00%	6275
2	T&P on material cost	1.00%	1569
3	Contigencies on material	2.50%	3922
5	Erection cost on material	5.00%	7844
6	Contractor supervision charges on material	5.00%	7844
7	Insurance , Labour & Finance Cost	3.00%	4706

Service Cost**32161****Sub-Total****189044**

8	Turnkey Charges	5.00%	9452
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Total**198496**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	252676	198496
Total Cost of the Estimate	252676	198496

Item Code No. 5747						
11 kV Isolator ,400 A with EB (Indoor)						
Sr. No.	Description of Material	Unit	QTY	Rate/Unit	Rs.	Amount
1	11 KV Isolator with EB 400 A	Set	1	27267.00		27267.00
	Cost of material			Total		27267.00

1	Transportation on material	4.00%				1091
2	T&P on material cost	1.00%				273
3	Contigencies on material	2.50%				682
5	Erection cost on material	5.00%				1363
6	Contractor supervision charges on material	5.00%				1363
7	Insurance , Labour & Finance Cost	3.00%				818
	Service Cost					5590
	Sub-Total					32857
8	Turnkey Charges	5.00%				1643

Total **34500**

Particulars	DPR Amount	Tender/ Estimate Amount
		61.06%
Cost with overheads on Material	43916	34500
Total Cost of the Estimate	43916	34500

Item Code No. 5748

Replacement of 33/11 kv 5 MVA Power transformer

Sr.No	Description	Unit	Qty.	Rate	Amount
1	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
	Cost of material			Total	3003469.00

1	Transportation on material	4.00%	120139
2	T&P on material cost	1.00%	30035
3	Contigencies on material	2.50%	75087
5	Erection cost on material	5.00%	150173
6	Contractor supervision charges on material	5.00%	150173
7	Insurance , Labour & Finance Cost	3.00%	90104
	Service Cost		615711
	Sub-Total		3619180
8	Turnkey Charges	5.00%	180959

Total **3800139**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	4837387	3800139
Total Cost of the Estimate	4837387	3800139

Item Code No. 5749

Replacement of 33/11 kv 5 MVA Power transformer

Sr.No	Description	Unit	Qty.	Rate	Amount
1	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
	Cost of material			Total	4687202.00

1	Transportation on material	4.00%	187488
2	T&P on material cost	1.00%	46872
3	Contigencies on material	2.50%	117180
5	Erection cost on material	5.00%	234360
6	Contractor supervision charges on material	5.00%	234360
7	Insurance , Labour & Finance Cost	3.00%	140616
	Service Cost		960876
	Sub-Total		5648078
8	Turnkey Charges	5.00%	282404

Total **5930482**

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	7549208	5930482
Total Cost of the Estimate	7549208	5930482

Item Code No. 5751

Replacement of 22/11 kv 5 MVA Power transformer

Sr.No	Description	Unit	Qty.	Rate	Amount
1	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	1	3305209.00	3305209.00
	Cost of material			Total	3305209.00

1	Transportation on material	4.00%	132208
2	T&P on material cost	1.00%	33052
3	Contigencies on material	2.50%	82630
5	Erection cost on material	5.00%	165260
6	Contractor supervision charges on material	5.00%	165260
7	Insurance , Labour & Finance Cost	3.00%	99156
	Service Cost		677568
	Sub-Total		3982777
8	Turnkey Charges	5.00%	199139

Total

4181916

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	5323370	4181916
Total Cost of the Estimate	5323370	4181916

Item Code No. 5752

Replacement of 22/11 kv 5 MVA Power transformer

Sr.No	Description	Unit	Qty.	Rate	Amount
1	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	1	4769649.00	4769649.00
	Cost of material			Total	4769649.00

1	Transportation on material	4.00%	190786
2	T&P on material cost	1.00%	47696
3	Contigencies on material	2.50%	119241
5	Erection cost on material	5.00%	238482
6	Contractor supervision charges on material	5.00%	238482
7	Insurance , Labour & Finance Cost	3.00%	143089
	Service Cost		977778
	Sub-Total		5747427
8	Turnkey Charges	5.00%	287371

Total

6034798

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	7681997	6034798
Total Cost of the Estimate	7681997	6034798

Replacement of DB's for 25/63 KVA Distribution transformer with Kitkat DB

Sr.No	Description	Unit	Qty.	Rate	Amount
1	L.T.Dist.Boxes 25/63 KVA with KITKAT	No	1	10800.00	10800.00
2	G.I.Wire 8 SWG/ 6 SWG	Kg.	5	57.40	287.00
3	Earthing with GI pipe	LS	1	291.00	291.00
4	Sundries	LS	1	810.00	810.00
5	MS angle 50x50x6 mm	Kg	20.00	51.80	1036.00
	Cost of Material				13224.00

1	Transportation on material	4.00%	529
2	T&P on material cost	1.00%	132
3	Contigencies on material	2.50%	331
5	Erection cost on material	15.00%	1984
6	Contractor supervision charges on material	5.00%	661
7	Insurance , Labour & Finance Cost	3.00%	397
	Service Cost		4033
	Sub-Total		17257
8	Turnkey Charges	5.00%	863

Total**18120**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	23012	18120
Total Cost of the Estimate	23012	18120

Replacement of DB's for 100 KVA Distribution transformer with Kitkat DB

Sr.No	Description	Unit	Qty.	Rate	Amount
1	L.T.Dist.Boxes 100 KVA with KITKAT	No	1	11834.00	11834.00
2	G.I.Wire 8 SWG/ 6 SWG	Kg.	5	57.40	287.00
3	Earthing with GI pipe	LS	1	291.00	291.00
4	Sundries	LS	1	810.00	810.00
5	MS angle 50x50x6 mm	Kg	20.00	51.80	1036.00
	Cost of Material				14258.00

1	Transportation on material	4.00%	570
2	T&P on material cost	1.00%	143
3	Contigencies on material	2.50%	356
5	Erection cost on material	15.00%	2139
6	Contractor supervision charges on material	5.00%	713
7	Insurance , Labour & Finance Cost	3.00%	428
	Service Cost		4349
	Sub-Total		18607
8	Turnkey Charges	5.00%	930

Total**19537**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	24812	19537
Total Cost of the Estimate	24812	19537

Replacement of DB's for 200 KVA Distribution transformer with Kitkat DB

Sr.No	Description	Unit	Qty.	Rate	Amount
1	L.T.Dist.Boxes 200 KVA with KitKat	No	1	23400.00	23400.00
2	G.I.Wire 8 SWG/ 6 SWG	Kg.	5	57.40	287.00
3	Earthing with GI pipe	LS	1	291.00	291.00
4	Sundries	LS	1	810.00	810.00
5	MS angle 50x50x6 mm	Kg	20.00	51.80	1036.00
	Cost of Material				25824.00

1	Transportation on material	4.00%	1033
2	T&P on material cost	1.00%	258
3	Contigencies on material	2.50%	646
5	Erection cost on material	15.00%	3874
6	Contractor supervision charges on material	5.00%	1291
7	Insurance , Labour & Finance Cost	3.00%	775
	Service Cost		7876
	Sub-Total		33700
8	Turnkey Charges	5.00%	1685

Total**35385**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	44939	35385
Total Cost of the Estimate	44939	35385

Replacement of DB's for 315 KVA Distribution transformer with 6 way feeder pillar with ACB

Sr.No	Description	Unit	Qty.	Rate	Amount
1	6 way feeder pillar with ACB	No	1	61963.00	61963.00
2	G.I.Wire 8 SWG/ 6 SWG	Kg.	5	57.40	287.00
3	Earthing with GI pipe	LS	1	291.00	291.00
4	Sundries	LS	1	810.00	810.00
5	MS angle 50x50x6 mm	Kg	20.00	51.80	1036.00
	Cost of Material				64387.00

1	Transportation on material	4.00%	2575
2	T&P on material cost	1.00%	644
3	Contigencies on material	2.50%	1610
5	Erection cost on material	15.00%	9658
6	Contractor supervision charges on material	5.00%	3219
7	Insurance , Labour & Finance Cost	3.00%	1932
	Service Cost		19638
	Sub-Total		84025
8	Turnkey Charges	5.00%	4201

Total**88226**

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	112046	88226
Total Cost of the Estimate	112046	88226

Replacement of LT C.T. Operated Electronic Meter 100/5A with Communication Port RS-232.

Sr.No	Description	Unit	Qty.	Rate	Amount
1	100/5A CT Operated Meter	No.	1.00	4282.00	4282.00
	Cost of Material				4282.00

1	Transportation on material	4.00%	171
2	T&P on material cost	1.00%	43
3	Contigencies on material	2.50%	107
5	Erection cost on material	15.00%	642
6	Contractor supervision charges on material	5.00%	214
7	Insurance , Labour & Finance Cost	3.00%	128
	Service Cost		1306
	Sub-Total		5588
8	Turnkey Charges	5.00%	279

Total**5867**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	7452	5867
Total Cost of the Estimate	7452	5867

Replacement of DB's for 63/100 KVA Distribution transformer with MCCB DB

Sr.No	Description	Unit	Qty.	Rate	Amount
1	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
2	G.I.Wire 8 SWG/ 6 SWG	Kg.	5	57.40	287.00
3	Earthing with GI pipe	LS	1	291.00	291.00
4	Sundries	LS	1	810.00	810.00
5	MS angle 50x50x6 mm	Kg	20.00	51.80	1036.00
	Cost of Material				15246.00

1	Transportation on material	4.00%	610
2	T&P on material cost	1.00%	152
3	Contigencies on material	2.50%	381
5	Erection cost on material	15.00%	2287
6	Contractor supervision charges on material	5.00%	762
7	Insurance , Labour & Finance Cost	3.00%	457
	Service Cost		4650
	Sub-Total		19896
8	Turnkey Charges	5.00%	995

Total**20891**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	26531	20891
Total Cost of the Estimate	26531	20891

Replacement of DB's for 200 KVA Distribution transformer with MCCB DB

Sr.No	Description	Unit	Qty.	Rate	Amount
1	L.T.Dist.Boxes 200 KVA with MCCB	No	1	24768.00	24768.00
2	G.I.Wire 8 SWG/ 6 SWG	Kg.	5	57.40	287.00
3	Earthing with GI pipe	LS	1	291.00	291.00
4	Sundries	LS	1	810.00	810.00
5	MS angle 50x50x6 mm	Kg	20.00	51.80	1036.00
	Cost of Material				27192.00

1	Transportation on material	4.00%	1088
2	T&P on material cost	1.00%	272
3	Contigencies on material	2.50%	680
5	Erection cost on material	15.00%	4079
6	Contractor supervision charges on material	5.00%	1360
7	Insurance , Labour & Finance Cost	3.00%	816
	Service Cost		8294
	Sub-Total		35486
8	Turnkey Charges	5.00%	1774

Total**37260**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	47320	37260
Total Cost of the Estimate	47320	37260

Replacement of DB's for 315 KVA Distribution transformer with 6 way feeder pillar with ACB

Sr.No	Description	Unit	Qty.	Rate	Amount
1	6 way feeder pillar with ACB	No	1	61963.00	61963.00
2	G.I.Wire 8 SWG/ 6 SWG	Kg.	5	57.40	287.00
3	Earthing with GI pipe	LS	1	291.00	291.00
4	Sundries	LS	1	810.00	810.00
5	MS angle 50x50x6 mm	Kg	20.00	51.80	1036.00
	Cost of Material				64387.00

1	Transportation on material	4.00%	2575
2	T&P on material cost	1.00%	644
3	Contigencies on material	2.50%	1610
5	Erection cost on material	15.00%	9658
6	Contractor supervision charges on material	5.00%	3219
7	Insurance , Labour & Finance Cost	3.00%	1932
	Service Cost		19638
	Sub-Total		84025
8	Turnkey Charges	5.00%	4201

Total**88226**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	112046	88226
Total Cost of the Estimate	112046	88226

Item Code No. 5816

Replacement of 11 kV Pin Insulator with pin

Sr.No	Description	Unit	Qty.	Rate	Amount
1	11 kV Pin Insulators with G.I. Pins	No.	1.00	135.00	135.00
	Cost of Material				135.00

1	Transportation on material	4.00%	5
2	T&P on material cost	1.00%	1
3	Contigencies on material	2.50%	3
5	Erection cost on material	15.00%	20
6	Contractor supervision charges on material	5.00%	7
7	Insurance , Labour & Finance Cost	3.00%	4
	Service Cost		41
	Sub-Total		176
8	Turnkey Charges	5.00%	9

Total

185

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	235	185
Total Cost of the Estimate	235	185

Item Code No. 5817

Replacement of 22 kV Pin Insulators with G.I. Pins

Sr.No	Description	Unit	Qty.	Rate	Amount
1	22 kV Pin Insulators with G.I. Pins	No.	1.00	336.00	336.00
	Cost of Material				336.00

1	Transportation on material	4.00%			13
2	T&P on material cost	1.00%			3
3	Contigencies on material	2.50%			8
5	Erection cost on material	15.00%			50
6	Contractor supervision charges on material	5.00%			17
7	Insurance , Labour & Finance Cost	3.00%			10
	Service Cost				102
	Sub-Total				438
8	Turnkey Charges	5.00%			22

Total

460

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	585	460
Total Cost of the Estimate	585	460

Item Code No. 5818

Replacement of 33 kV Pin Insulator with pin

Sr.No	Description	Unit	Qty.	Rate	Amount
1	33 kV Pin Insulators with G.I. Pins	No.	1.00	541.00	541.00
	Cost of Material				541.00

1	Transportation on material	4.00%	22
2	T&P on material cost	1.00%	5
3	Contigencies on material	2.50%	14
5	Erection cost on material	15.00%	81
6	Contractor supervision charges on material	5.00%	27
7	Insurance , Labour & Finance Cost	3.00%	16
	Service Cost		165
	Sub-Total		706
8	Turnkey Charges	5.00%	35

Total **741**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	941	741
Total Cost of the Estimate	941	741

Replacement of 11 kV Disc Insulator

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	Disc Insulator 11 KV 70 KN	No	1	344.00	344.00
	Cost of material				344.00

1	Transportation on material	4.00%			14
2	T&P on material cost	1.00%			3
3	Contigencies on material	2.50%			9
5	Erection cost on material	15.00%			52
6	Contractor supervision charges on material	5.00%			17
7	Insurance , Labour & Finance Cost	3.00%			10
	Service Cost				105
	Sub-Total				449
8	Turnkey Charges	5.00%			22

Total**471**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	599	471
Total Cost of the Estimate	599	471

Replacement of RSJ pole with required Accessories 100 X 116, 11 Mt

Sr.No	Description of Material	Unit	Qty.	Rate in Rs.	Amount
1	RSJ 116x100, 11 m long	No.	1	11311.00	11311.00
2	M.S. Flats(50 X 10mm)	Kg	7.0	48.50	339.50
3	MS Channel 100x50x6 mm	Kg	33	51.80	1709.40
4	MS angle 50x50x6 mm	Kg	14	51.80	725.20
5	22 kV Pin Insulators with G.I. Pins	No	3	336.00	1008.00
6	H.T.Stay Set	Set	1	598.00	598.00
7	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	8.000	57.45	459.60
8	G.I.Wire 8 SWG/ 6 SWG	Kg.	3.000	57.40	172.20
9	Danger Board in yard.	No	1	50.00	50.00
10	Earthing Sets H.T	Set	1	342.00	342.00
11	G.I.Barbed Wire 'A' type.	Kg.	5.000	64.27	321.35
12	Sundries	LS	1	810.00	810.00
12	Concreting ration 1:3:6	Cmt.	0.5	3027.00	1513.50

Cost of material**19359.75**

1	Transportation on material	4.00%	774
2	T&P on material cost	1.00%	194
3	Contigencies on material	2.50%	484
5	Erection cost on material	15.00%	2904
6	Contractor supervision charges on material	5.00%	968
7	Insurance , Labour & Finance Cost	3.00%	581
	Service Cost		5905
	Sub-Total		25264
8	Turnkey Charges	5.00%	1263

Total**26528**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	33690	26528
Total Cost of the Estimate	33690	26528

Replacement of RSJ pole with required Accessories 100 X 116, 10 Mt

Sr.No	Description of Material	Unit	Qty.	Rate in Rs.	Amount
1	RSJ 116x100, 10 m long	No.	1	10283.00	10283.00
2	M.S. Flats(50 X 10mm)	Kg	7.0	48.50	339.50
3	MS Channel 100x50x6 mm	Kg	33	51.80	1709.40
4	MS angle 50x50x6 mm	Kg	14	51.80	725.20
5	22 kV Pin Insulators with G.I. Pins	No	3	336.00	1008.00
6	H.T.Stay Set	Set	1	598.00	598.00
7	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	8.000	57.45	459.60
8	G.I.Wire 8 SWG/ 6 SWG	Kg.	3.000	57.40	172.20
9	Danger Board in yard.	No	1	50.00	50.00
10	Earthing Sets H.T	Set	1	342.00	342.00
11	G.I.Barbed Wire 'A' type.	Kg.	5.000	64.27	321.35
12	Sundries	LS	1	810.00	810.00
12	Concreting ration 1:3:6	Cmt.	0.5	3027.00	1513.50

Cost of material**18331.75**

1	Transportation on material	4.00%	733
2	T&P on material cost	1.00%	183
3	Contigencies on material	2.50%	458
5	Erection cost on material	15.00%	2750
6	Contractor supervision charges on material	5.00%	917
7	Insurance , Labour & Finance Cost	3.00%	550
	Service Cost		5591
	Sub-Total		23923
8	Turnkey Charges	5.00%	1196

Total**25119**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	31901	25119
Total Cost of the Estimate	31901	25119

Replacement of RSJ pole 152 X 152, 13 Mt

Sr.No	Description of Material	Unit	Qty.	Rate in Rs.	Amount
1	RSJ 152x152, 13 m long	No.	1	21562.00	21562.00
2	MS Channel 100x50x6 mm	Kg.	33	51.80	1709.40
3	G.I.Angle 50x50x6mm	Kg.	14	70.08	981.12
4	G.I Flat 50x10 mm	Kg.	7	66.78	467.46
5	33 kV Pin Insulators with G.I. Pins	No.	3	541.00	1623.00
6	Earthing Sets H.T	Set	1	342.00	342.00
7	H.T.Stay Set	Set	1	598.00	598.00
8	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	8.000	57.45	459.60
9	G.I.Wire 8 SWG/ 6 SWG	Kg.	2	57.40	114.80
10	G.I.Nut Bolts	Kg.	1	82.90	82.90
11	Sundries	LS	1	810.00	810.00
12	Concreting ration 1:3:6	Cmt.	0.5	3027.00	1513.50

Cost of material**28750.28**

1	Transportation on material	4.00%	1150
2	T&P on material cost	1.00%	288
3	Contigencies on material	2.50%	719
5	Erection cost on material	15.00%	4313
6	Contractor supervision charges on material	5.00%	1438
7	Insurance , Labour & Finance Cost	3.00%	863

Service Cost**8769****Sub-Total****37519**

8	Turnkey Charges	5.00%	1876
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Total**39395**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	50031	39395
Total Cost of the Estimate	50031	39395

Replacement of RSJ pole 152 X 152, 11 Mt

Sr.No	Description of Material	Unit	Qty.	Rate in Rs.	Amount
1	RSJ 152x152, 11 m long	No.	1	18245.00	18245.00
2	MS Channel 100x50x6 mm	Kg.	33	51.80	1709.40
3	G.I.Angle 50x50x6mm	Kg.	14	70.08	981.12
4	G.I Flat 50x10 mm	Kg.	7	66.78	467.46
5	33 kV Pin Insulators with G.I. Pins	No.	3	541.00	1623.00
6	Earthing Sets H.T	Set	1	342.00	342.00
7	H.T.Stay Set	Set	1	598.00	598.00
8	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	8.000	57.45	459.60
9	G.I.Wire 8 SWG/ 6 SWG	Kg.	2	57.40	114.80
10	G.I.Nut Bolts	Kg.	1	82.90	82.90
11	Sundries	LS	1	810.00	810.00
12	Concreting ration 1:3:6	Cmt.	0.5	3027.00	1513.50

Cost of material**26946.78**

1	Transportation on material	4.00%	1078
2	T&P on material cost	1.00%	269
3	Contingencies on material	2.50%	674
5	Erection cost on material	15.00%	4042
6	Contractor supervision charges on material	5.00%	1347
7	Insurance , Labour & Finance Cost	3.00%	808

Service Cost**8219****Sub-Total****35166**

8	Turnkey Charges	5.00%	1758
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Total**36924**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	46893	36924
Total Cost of the Estimate	46893	36924

Replacement of HT poles RSJ 9 mtr 100 X 116 mm

Sr.No	Particulars	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	No	1.00	9254.00	9254.00
2	M.S. Flats(50 X 10mm)	Kg	7.0	48.50	339.50
3	MS Channel 100x50x6 mm	Kg	33	51.80	1709.40
4	MS angle 50x50x6 mm	Kg	14	51.80	725.20
5	22 kV Pin Insulators with G.I. Pins	No	3	336.00	1008.00
6	H.T.Stay Set	Set	1	598.00	598.00
7	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	8.000	57.45	459.60
8	G.I.Wire 8 SWG/ 6 SWG	Kg.	3.000	57.40	172.20
9	Danger Board in yard.	No	1	50.00	50.00
10	Earthing Sets H.T	Set	1	342.00	342.00
11	G.I.Barbed Wire 'A' type.	Kg.	5.000	64.27	321.35
12	Sundries	LS	1	810.00	810.00
13	Concreting ration 1:3:6	Cmt.	0.50	3027.00	1513.50
	Cost of material				17302.75

1	Transportation on material	4.00%	692
2	T&P on material cost	1.00%	173
3	Contigencies on material	2.50%	433
5	Erection cost on material	15.00%	2595
6	Contractor supervision charges on material	5.00%	865
7	Insurance , Labour & Finance Cost	3.00%	519
	Service Cost		5277
	Sub-Total		22580
8	Turnkey Charges	5.00%	1129

Total**23709**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	30110	23709
Total Cost of the Estimate	30110	23709

Replacement of HT poles RSJ 9 mtr 116 X 100 mm

Sr.No	Particulars	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	No	1.00	9254.00	9254.00
2	M.S. Flats(50 X 10mm)	Kg	7.0	48.50	339.50
3	M.S.Channel 75x40x6 mm	Kg	23	51.80	1191.40
4	MS angle 50x50x6 mm	Kg	14	51.80	725.20
5	11 kV Pin Insulators with G.I. Pins	No	3	135.00	405.00
6	H.T.Stay Set	Set	1	598.00	598.00
7	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	8.000	57.45	459.60
8	G.I.Wire 8 SWG/ 6 SWG	Kg.	3.000	57.40	172.20
9	Danger Board in yard.	No	1	50.00	50.00
10	Earthing Sets H.T	Set	1	342.00	342.00
11	G.I.Barbed Wire 'A' type.	Kg.	5.000	64.27	321.35
12	Sundries	LS	1	810.00	810.00
13	Concreting ration 1:3:6	Cmt.	0.50	3027.00	1513.50
	Cost of material				16181.75

1	Transportation on material	4.00%	647
2	T&P on material cost	1.00%	162
3	Contigencies on material	2.50%	405
5	Erection cost on material	15.00%	2427
6	Contractor supervision charges on material	5.00%	809
7	Insurance , Labour & Finance Cost	3.00%	485
	Service Cost		4935
	Sub-Total		21117
8	Turnkey Charges	5.00%	1056

Total**22173**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	28159	22173
Total Cost of the Estimate	28159	22173

Replacement of LT poles with required accessories (125 X 70 mm X 9 M) with stay

Sr.No	Particulars	Unit	Qty.	Rate	Amount
1	RSJ 125x70, 9 m long	No	1	5268.00	5268.00
2	MS angle 50x50x6 mm	Kg	5	51.80	259.00
3	MS Flat 50 X 8 mm	Kg	1.5	48.50	72.75
4	L.T.Shackle Insulator	No	4	10.00	40.00
5	L.T.Shackle hardware	Pair	4	37.00	148.00
6	Earthing Sets L.T.	Set	1	166.00	166.00
7	L.T. Stay sets	Set	1	472.00	472.00
8	G.I.Stay Wire 7/3.15mm(10SWG)	Kg.	7.000	57.45	402.15
9	Painting/Hardware & support with numbering of pole	No	1	225.00	225.00
10	G.I.Wire 8 SWG/ 6 SWG	Kg.	2.000	57.40	114.80
11	Sundries	LS	1	810.00	810.00
12	Concreting ration 1:3:6	Cmt.	0.30	3027.00	908.10
	Cost of material				8885.80

1	Transportation on material	4.00%	355
2	T&P on material cost	1.00%	89
3	Contingencies on material	2.50%	222
5	Erection cost on material	15.00%	1333
6	Contractor supervision charges on material	5.00%	444
7	Insurance , Labour & Finance Cost	3.00%	267
	Service Cost		2710
	Sub-Total		11596
8	Turnkey Charges	5.00%	580
	Total		12176

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	15463	12176
Total Cost of the Estimate	15463	12176

Replacement of LT poles with required accessories (125 X 70 mm X 8 M) with stay

Sr.No	Particulars	Unit	Qty.	Rate	Amount
1	RSJ 125x70, 8 m long	No	1	4683.00	4683.00
2	MS angle 50x50x6 mm	Kg	5	51.80	259.00
3	MS Flat 50 X 8 mm	Kg	1.5	48.50	72.75
4	L.T.Shackle Insulator	No	4	10.00	40.00
5	L.T.Shackle hardware	Pair	4	37.00	148.00
6	Earthing Sets L.T.	Set	1	166.00	166.00
7	L.T. Stay sets	Set	1	472.00	472.00
8	G.I.Stay Wire 7/3.15mm(10SWG)	Kg.	7.000	57.45	402.15
9	Painting/Hardware & support with numbering of pole	No	1	225.00	225.00
10	G.I.Wire 8 SWG/ 6 SWG	Kg.	2.000	57.40	114.80
11	Sundries	LS	1	810.00	810.00
12	Concreting ration 1:3:6	Cmt.	0.30	3027.00	908.10
	Cost of material				8300.80

1	Transportation on material	4.00%	332
2	T&P on material cost	1.00%	83
3	Contingencies on material	2.50%	208
5	Erection cost on material	15.00%	1245
6	Contractor supervision charges on material	5.00%	415
7	Insurance , Labour & Finance Cost	3.00%	249
	Service Cost		2532
	Sub-Total		10833
8	Turnkey Charges	5.00%	542

Total**11374**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	14445	11374
Total Cost of the Estimate	14445	11374

Item Code No. 5912

Cost data for Replacement of LT RSJ 125 x 75, 9 Mt pole

Sr.No	Description of Material	Unit	Qty.	Rate in Rs.	Amount
1	RSJ 125x70, 9 m long	No.	1	5268.00	5268.00
2	Concreting ration 1:3:6	Cmt.	0.30	3027.00	908.10

Cost of material

5268.00

1	Transportation on material	4.00%	211
2	T&P on material cost	1.00%	53
3	Contigencies on material	2.50%	132
5	Erection cost on material	15.00%	790
6	Contractor supervision charges on material	5.00%	263
7	Insurance , Labour & Finance Cost	3.00%	158

Service Cost

1607

Sub-Total

6875

8	Turnkey Charges	5.00%	344
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Total

7218

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	9167	7218
Total Cost of the Estimate	9167	7218

Item Code No. 6001

Replacement of 1 phase meter

Sr.No	Description of Material	Unit	Qty.	Rate in Rs.	Amount
1	S.P. meter with 6LoWPAN tech. with enclosure	No.	1	951.00	951.00
Cost of material					951.00
1	Transportation on material		4.00%		38
2	T&P on material cost		1.00%		10
3	Contigencies on material		2.50%		24
5	Erection cost on material		15.00%		143
6	Contractor supervision charges on material		5.00%		48
7	Insurance , Labour & Finance Cost		3.00%		29
Service Cost					290
Sub-Total					1241
8	Turnkey Charges		5.00%		62
Total					1303
Particulars		DPR Amount	Tender/ Estimate Amount		
		74.02%	37.025%		
Cost with overheads on Material		1655	1303		
Total Cost of the Estimate		1655	1303		

Item Code No. 6002

Replacement of 3 phase meter

Sr.No	Description of Material	Unit	Qty.	Rate in Rs.	Amount
1	LTAC T.P. 10-40A IR port meter	No.	1	N/A	#VALUE!
	Cost of material				#VALUE!
1	Transportation on material		4.00%		#VALUE!
2	T&P on material cost		1.00%		#VALUE!
3	Contigencies on material		2.50%		#VALUE!
5	Erection cost on material		15.00%		#VALUE!
6	Contractor supervision charges on material		5.00%		#VALUE!
7	Insurance , Labour & Finance Cost		3.00%		#VALUE!
	Service Cost				#VALUE!
	Sub-Total				#VALUE!
8	Turnkey Charges		5.00%		#VALUE!
	Total				#VALUE!
	Particulars	DPR Amount	Tender/ Estimate Amount		
		74.02%	37.025%		
	Cost with overheads on Material	#VALUE!	#VALUE!		
	Total Cost of the Estimate	#VALUE!	#VALUE!		

Item Code No. 6003

Replacement of CT operated meter

Sr.No	Description of Material	Unit	Qty.	Rate in Rs.	Amount
1	LTAC T.P. CT embedded 40-200 A Meter (for loads above 20kW)	No.	1	13212.00	13212.00
Cost of material					13212.00
1	Transportation on material		4.00%		528
2	T&P on material cost		1.00%		132
3	Contigencies on material		2.50%		330
5	Erection cost on material		15.00%		1982
6	Contractor supervision charges on material		5.00%		661
7	Insurance , Labour & Finance Cost		3.00%		396
Service Cost					4030
Sub-Total					17242
8	Turnkey Charges		5.00%		862
Total					18104

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	22992	18104
Total Cost of the Estimate	22992	18104

Replacement of Mini Pillars

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	L.T. Mini Feedar Pillar	No	1	8830.00	8830.00
2	Earthing with GI pipe	No	2	291.00	582.00
3	Concreting ration 1:3:6	L. S.	1	3027.00	3027.00
4	G.I.Strip (25 X 3 mm)	KG	2	66.78	133.56
5	Sundries	L. S.	1	810.00	810.00

Cost of material**13382.56**

1	Transportation on material	4.00%	535
2	T&P on material cost	1.00%	134
3	Contigencies on material	2.50%	335
5	Erection cost on material	15.00%	2007
6	Contractor supervision charges on material	5.00%	669
7	Insurance , Labour & Finance Cost	3.00%	401
	Service Cost		4082
	Sub-Total		17464
8	Turnkey Charges	5.00%	873

Total**18337**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	23288	18337
Total Cost of the Estimate	23288	18337

Replacement of 3 Panel Ring Main Unit with 4 Panel Ring Main Unit, 11 kV

Sr.No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	11 kV SF6, Motorized, SCADA Compatible RMU 3 Iso + 1 Br	Set	1	406719.00	406719.00
2	11 kV heat shrinkable Indoor termination joint kit for 3 C X 185 sqmm	No	2	1538.00	3076.00
3	11 kV heat shrinkable Indoor termination joint kit for 3 C X 95 sqmm	No	1	1169.00	1169.00
4	Earthing with GI pipe	No	2	291.00	582.00
5	G.I.Strip (25 X 3 mm)	kg	2	66.78	133.56
6	Sundries such as N/B, Washers, Welding etc.	Ls	1	2900.00	2900.00

Total Cost**414579.56**

1	Transportation on material	4.00%	16583
2	T&P on material cost	1.00%	4146
3	Contigencies on material	2.50%	10364
5	Erection cost on material	15.00%	62187
6	Contractor supervision charges on material	5.00%	20729
7	Insurance , Labour & Finance Cost	3.00%	12437

Service Cost**126447****Sub-Total****541026**

8	Turnkey Charges	5.00%	27051
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Total**568078**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	721451	568078
Total Cost of the Estimate	721451	568078

Replacement of Ring Main Unit (SF - 6) (3 Isolators + 1 Breaker)

Sr.No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	11 kV SF6, Motorized, SCADA Compatible RMU 3 Iso + 1 Br	Set	1	406719.00	406719.00
2	Foundation Structure for RMU for Cable Entry Etc.	No	1	20036.60	20036.60
3	Earthing to equipment with Salt ,Coke, earthing strip Etc.	No	1	13000.00	13000.00
4	Sundries such as N/B, Washers, Welding etc.	kg	1	2900.00	2900.00
Total Cost					442655.60

1	Transportation on material	4.00%	17706
2	T&P on material cost	1.00%	4427
3	Contigencies on material	2.50%	11066
5	Erection cost on material	15.00%	66398
6	Contractor supervision charges on material	5.00%	22133
7	Insurance , Labour & Finance Cost	3.00%	13280

Service Cost**Sub-Total**

8	Turnkey Charges	5.00%	28883
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Total**606549**

9	Foundation for RMU	LS	1	17076.59	17077
Total Cost of Estimate					623625

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	770309	606549
Foundation for RMU	17077	17077
Total Cost of the Estimate	787386	623625

Replacement of Ring Main Unit (SF - 6) (2 Isolators + 2 Breaker)

Sr.No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	11 kV SF6, Motorized, SCADA Compatible RMU 2 Iso + 2 Br	Set	1	492900.00	492900.00
2	Foundation Structure for RMU for Cable Entry Etc.	No	1	20036.60	20036.60
3	Earthing to equipment with Salt ,Coke, earthing strip Etc.	No	1	13000.00	13000.00
4	Sundries such as N/B, Washers, Welding etc.	kg	1	2900.00	2900.00

Total Cost**528836.60**

1	Transportation on material	4.00%	21153
2	T&P on material cost	1.00%	5288
3	Contingencies on material	2.50%	13221
5	Erection cost on material	15.00%	79325
6	Contractor supervision charges on material	5.00%	26442
7	Insurance , Labour & Finance Cost	3.00%	15865

Service Cost**161295****Sub-Total****690132**

8	Turnkey Charges	5.00%	34507
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Total**724638**

9	Foundation for RMU	LS	1	17076.59	17077
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Total Cost of Estimate**741715**

Particulars		
	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	920281	724638
Foundation for RMU	17077	17077
Total Cost of the Estimate	937358	741715

Replacement of Indoor Ring Main Unit (SF - 6) (3 Isolators + 2 Breaker) 22 kV

Sr.No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
1	22 kV SF6, Motorized, SCADA Compatible RMU 3 Iso + 2 Br	Set	1	696500.00	696500.00
2	Foundation Structure for RMU for Cable Entry Etc.	No	1	20036.60	20036.60
3	Earthing to equipment with Salt ,Coke, earthing strip Etc.	No	1	13000.00	13000.00
4	Sundries such as N/B, Washers, Welding etc.	kg	1	2900.00	2900.00

Total Cost**732436.60**

1	Transportation on material	4.00%	29297
2	T&P on material cost	1.00%	7324
3	Contigencies on material	2.50%	18311
5	Erection cost on material	15.00%	109865
6	Contractor supervision charges on material	5.00%	36622
7	Insurance , Labour & Finance Cost	3.00%	21973

Service Cost**223393****Sub-Total****955830**

8	Turnkey Charges	5.00%	47791
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Total**1003621**

9	Foundation for RMU	LS	1	17076.59	17077
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Total Cost of Estimate**1020698**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	1274586	1003621
Foundation for RMU	17077	17077
Total Cost of the Estimate	1291663	1020698

Item Code No. 6701

11KV A.B. Switch, 400 A

Sr.No	Description	Unit	Qty.	Rate	Amount
1	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
2	M.S. Flats(50 X 10mm)	Kg	25	48.50	1212.50
3	M.S.Channel 75x40x6 mm	Kg	43	51.80	2206.68
4	Sundries	LS	1	810.00	810.00
Cost of Material					13469.18

1	Transportation on material	4.00%	539
2	T&P on material cost	1.00%	135
3	Contigencies on material	2.50%	337
5	Erection cost on material	15.00%	2020
6	Contractor supervision charges on material	5.00%	673
7	Insurance , Labour & Finance Cost	3.00%	404
Service Cost			4108
Sub-Total			17577
8	Turnkey Charges	5.00%	879

Total

18456

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	23439	18456
Total Cost of the Estimate	23439	18456

Item Code No. 6723					
11 kV A.B. Switch 400 Amp with DP structure.					
Sr.No	Description of Material	Unit	Qty.	Rate	Amount
1	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
2	MS Channel 100x50x6 mm	Kg	51	51.80	2621.08
3	M.S.Channel 75x40x6 mm	Kg	32	51.80	1657.60
4	H.T.Stay Set	Set	4	598.00	2392.00
5	Strain Hardware forWeasel/Squirrel	Set	10	179.00	1790.00
6	Disc Insulator 11 KV 70 KN	No	6	344.00	2064.00
7	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
8	Sundries	LS	1	810.00	810.00
9	Concreting ration 1:3:6	LS	2	3027.00	6054.00
	Cost of Material				45136.68

1	Transportation on material	4.00%	1805
2	T&P on material cost	1.00%	451
3	Contigencies on material	2.50%	1128
5	Erection cost on material	15.00%	6771
6	Contractor supervision charges on material	5.00%	2257
7	Insurance , Labour & Finance Cost	3.00%	1354
	Service Cost		13767
	Sub-Total		58903
8	Turnkey Charges	5.00%	2945

Total

61849

Particulars	DPR Amount	Tender/ Estimate Amount
		74.02%
Cost with overheads on Material	78547	61849
Total Cost of the Estimate	78547	61849

22 kV A.B. Switch with RSJ pole 110 X 116, 9 mtr DP with allied fabrications.

Sr.No	Description	Unit	Qty.	Rate	Amount
1	22KV A.B.Switch, 400 A	Set	1	14447.00	14447.00
2	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
3	M.S.Channel 75x40x6 mm	Kg	55	51.80	2849.00
4	M.S. Flats(50 X 10mm)	Kg	10	48.50	485.00
5	Disc Insulator 11 KV 45 KN	No	12	244.00	2928.00
6	Strain Hardware forWeasel/Squirrel	Set	6	179.00	1074.00
7	H.T.Stay Set	Set	4	598.00	2392.00
8	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	32.000	57.45	1838.40
9	Earthing Sets H.T	Set	2	342.00	684.00
10	G.I.Wire 8 SWG/ 6 SWG	Kg.	10.00	57.40	574.00
11	Sundries	LS	1	810.00	810.00
12	Concreting ration 1:3:6	LS	2	3027.00	6054.00
Cost of Material					52643.40

1	Transportation on material	4.00%	2106
2	T&P on material cost	1.00%	526
3	Contigencies on material	2.50%	1316
5	Erection cost on material	15.00%	7897
6	Contractor supervision charges on material	5.00%	2632
7	Insurance , Labour & Finance Cost	3.00%	1579
Service Cost			16056
Sub-Total			68700
8	Turnkey Charges	5.00%	3435

Total**72135**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	91610	72135
Total Cost of the Estimate	91610	72135

Supply & replacement of 11 kV V-cross arms & Top pin supports

Sr.No	Description	Unit	Qty.	Rate	Amount
1	11 KV V cross arm with clamp	No	1	639.00	639.00
2	11 KV Top fitting with clamp	No	1	91.00	91.00
5	Sundries	LS	1	810.00	810.00
	Cost of Material				1540.00

1	Transportation on material	4.00%	62
2	T&P on material cost	1.00%	15
3	Contigencies on material	2.50%	39
5	Erection cost on material	15.00%	231
6	Contractor supervision charges on material	5.00%	77
7	Insurance , Labour & Finance Cost	3.00%	46
	Service Cost		470
	Sub-Total		2010
8	Turnkey Charges	5.00%	100

Total**2110**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	2680	2110
Total Cost of the Estimate	2680	2110

Supply & replacement of 22 kV V-cross arms & Top pin supports

Sr.No	Description	Unit	Qty.	Rate	Amount
1	22 KV V cross arm with clamp	No	1	906.00	906.00
2	22 KV Top Fitting	No	1	382.00	382.00
5	Sundries	LS	1	810.00	810.00
	Cost of Material				2098.00

1	Transportation on material	4.00%	84
2	T&P on material cost	1.00%	21
3	Contigencies on material	2.50%	52
5	Erection cost on material	15.00%	315
6	Contractor supervision charges on material	5.00%	105
7	Insurance , Labour & Finance Cost	3.00%	63
	Service Cost		640
	Sub-Total		2738
8	Turnkey Charges	5.00%	137

Total**2875**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3651	2875
Total Cost of the Estimate	3651	2875

Supply & replacement of 33 kV V-cross arms & Top pin supports

Sr.No	Description	Unit	Qty.	Rate	Amount
1	33 KV V Cross Arms	No	1	906.00	906.00
2	33 KV Top Fitting	No	1	382.00	382.00
5	Sundries	LS	1	810.00	810.00
	Cost of Material				2098.00

1	Transportation on material	4.00%	84
2	T&P on material cost	1.00%	21
3	Contigencies on material	2.50%	52
5	Erection cost on material	15.00%	315
6	Contractor supervision charges on material	5.00%	105
7	Insurance , Labour & Finance Cost	3.00%	63
	Service Cost		640
	Sub-Total		2738
8	Turnkey Charges	5.00%	137

Total**2875**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	3651	2875
Total Cost of the Estimate	3651	2875

DP structure & reinstallation of existing 22/0.4 or 11/0.4 kV Distribution transformer on RSJ pole 100 X 116, 9 mtr with Kit Kat DB

Sr.No	Description	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	No	2	9254.00	18508.00
2	MS Channel 100x50x6 mm	Kg	100	51.80	5180.00
3	M.S.Channel 75x40x6 mm	Kg	44	51.80	2279.20
4	MS angle 50x50x6 mm	Kg	22	51.80	1139.60
5	M.S.Flat 50 x 6 mm	Kg	24	48.50	1164.00
6	22 kV Pin Insulators with G.I. Pins	No	3	336.00	1008.00
7	L.T.Dist.Boxes 100 KVA with KITKAT	No	1	11834.00	11834.00
8	L.A.s 22KV (Gapless type) with disconnecter	Set	1	2280.00	2280.00
9	H.T.Stay Set	Set	4	598.00	2392.00
10	Earthing Sets H.T	Set	5	342.00	1710.00
11	22KV H.G.Fuses	Set	1	4467.00	4467.00
12	22KV A.B.Switch, 400 A	Set	1	14447.00	14447.00
13	Danger Board in yard.	No	2	50.00	100.00
14	Painting/Hardware & support with numbering of pole	LS	1	225.00	225.00
15	Sundries	LS	1	810.00	810.00
16	Concreting ration 1:3:6	LS	2	3027.00	6054.00
	Cost of Material				67543.80

1	Transportation on material	4.00%	2702
2	T&P on material cost	1.00%	675
3	Contingencies on material	2.50%	1689
5	Erection cost on material	15.00%	10132
6	Contractor supervision charges on material	5.00%	3377
7	Insurance , Labour & Finance Cost	3.00%	2026
	Service Cost		20601
	Sub-Total		88145
8	Turnkey Charges	5.00%	4407

Total**92552**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	117540	92552
Total Cost of the Estimate	117540	92552

Rerouting of 22 KV Tower line with Narrow Based Towers

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
I)	Erection of 25 nos of towers in place of old rusted towers with pile foundation and caps and reconductoring with 232 sqmm AAAC conductor this includes the cost of tower material	No	25	526440.00	13161000.00
II)					
1	Disc Insulator 11 KV 70 KN	No	1600	344.00	550400.00
2	AAAC 232 mm2	Km	14	127.40	1783.60
3	Strain Hardware for AAAC232 sq.mm.	No	315	603.00	189945.00
4	0.2 ACSR or equivalent AAAC Loop Connector	No	615	820.00	504300.00
5	Suspension Hardware for 0.2 ACSR or equivalent AAAC	No	45	339.00	15255.00
6	Sundries Nutbolts, Binding Tapes wire etc.	L.S.	1	18900.00	18900.00
	Cost of material				14441583.60

1	Transportation on material	4.00%	577663
2	T&P on material cost	1.00%	144416
3	Contingencies on material	2.50%	361040
5	Erection cost on material	15.00%	2166238
6	Contractor supervision charges on material	5.00%	722079
7	Insurance , Labour & Finance Cost	3.00%	433248
	Service Cost		4404683
	Sub-Total		18846267
8	Turnkey Charges	5.00%	942313

Total**19788580**

Particulars	DPR Amount	Tender/ Estimate Amount
	74.02%	37.025%
Cost with overheads on Material	25131244	19788580
Total Cost of the Estimate	25131244	19788580

Replacement of Electromagnetic Relay by Static/Numerical Relays

Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	30 Volt Non directional type Electronic Static relay (Numeric Relay)	No	1	N/A	#VALUE!
	Cost of material				#VALUE!
1	Transportation on material		4.00%		#VALUE!
2	T&P on material cost		1.00%		#VALUE!
3	Contingencies on material		2.50%		#VALUE!
5	Erection cost on material		15.00%		#VALUE!
6	Contractor supervision charges on material		5.00%		#VALUE!
7	Insurance , Labour & Finance Cost		3.00%		#VALUE!
	Service Cost				#VALUE!
	Sub-Total				#VALUE!
8	Turnkey Charges		5.00%		#VALUE!
	Total				#VALUE!
	Particulars		DPR Amount		Tender/ Estimate Amount
			74.02%		37.025%
	Cost with overheads on Material		#VALUE!		#VALUE!
	Total Cost of the Estimate		#VALUE!		#VALUE!

Item Code No. 7001					
GIS 33/11 KV 1 x 5 MVA (for cities Amravati, Nagpur, Pune, Bhandup, Kalyan & Nashik)					
Cost data for 33/11 KV, 1 X 5 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	1	1265000.00	1265000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	No.	1	1592963.00	1592963.00
5	XLPE Cable 33 KV, 3 C / 300 mm sq.	Mtr.	200	1737.00	347400.00
6	33 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	67830.00	542640.00
7	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
8	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
9	33 KV Post Insulator	Nos	6	918.00	5508.00
10	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11 KV Indoor GIS Switchgear (I/C) 800 A	No	1	843333.00	843333.00
12	11 KV Indoor GIS Switchgear (O/G) 400A	No.	3	796481.00	2389443.00
	11 KV GIS Bus bar with Buscoupler and Bus riser 800 A	No	0	1204093.00	0.00
13	XLPE Cable 11 KV, 3 C / 300 mm sq.	Mtr.	2000	1194.00	2388000.00
14	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	48	1662.00	79776.00
15	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
16	Earthing complete as per Sheet no.2	Set	2	246832.00	493664.00
17	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	274659.20	549318.40
18	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
19	Clamps and Connectors as per Sheet no.5	No.	1	251340.00	251340.00
20	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
21	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
22	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
23	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	199541.40	199541.40
	Cost of material				17306290.70

1	Transportation on material	4.00%	692252
2	T&P on material cost	1.00%	173063
3	Contigencies on material	2.50%	432657
5	Erection cost on material	5.00%	865315
6	Contractor supervision charges on material	5.00%	865315
7	Insurance , Labour & Finance Cost	3.00%	519189
	Service Cost		3547790
	Sub-Total		20854080
8	Turnkey Charges	5.00%	1042704

Total **21896784**

9	Civil Works As per Sheet 'C'	No.	1	5202820
	Total Cost of Estimate			27099604

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	27873512	21896784
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	34505072	27099604

Sheet
No - 1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x5 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	274659.20

Sheet
No. 5

Cost data for Clamps & Connectors at 2x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	251340.00

Cost data for Yard Lighting of 2X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data for Control cable 2X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0.00
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5202820.06

Item Code No. 7002					
GIS 33/11 KV 1 x 5 MVA (for other Cities)					
Cost data for 33/11 KV, 1 X 5 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 33/11 KV, 5 MVA	No	1	3003469.00	3003469.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	1	1265000.00	1265000.00
4	XLPE Cable 33 KV, 3 C / 300 mm sq.	Mtr.	200	1737.00	347400.00
5	33 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	67830.00	542640.00
6	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
7	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
8	33 KV Post Insulator	Nos	6	918.00	5508.00
9	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
10	11kV I D switchgear (1 l/c+1 B/c+4O/G)	No	1	1703020.00	1703020.00
11	XLPE Cable 11 KV, 3 C / 300 mm sq.	No.	300	1194.00	358200.00
12	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No	4	1662.00	6648.00
	Clamps and Connectors as per Sheet no.4	Mtr.	1	273276.00	273276.00
14	S/S Yard lighting as per Sheet no.5	No.	1	211641.00	211641.00
15	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
16	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	Set	1	196242.40	196242.40
17	Control cables for S/S as per Sheet no.7	No.	1	85383.45	85383.45
18	AC Distribution Board 'B' type	No.	1	24325.00	24325.00
	Cost of material				10984386.85

1	Transportation on material	4.00%	439375
2	T&P on material cost	1.00%	109844
3	Contingencies on material	2.50%	274610
5	Erection cost on material	5.00%	549219
6	Contractor supervision charges on material	5.00%	549219
7	Insurance , Labour & Finance Cost	3.00%	329532
	Service Cost		2251799
	Sub-Total		13236186
8	Turnkey Charges	5.00%	661809
	Total		13897995

9	Civil Works As per Sheet 'C'	No.	1	5202820
	Total Cost of Estimate			19100816

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	17691453	13897995
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	24323014	19100816

Sheet
No - 1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x5 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
	Total:				194970.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	G.I..Flat 50 x 6 mm	Kg.	1500	66.78	100170.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries such as N/B, Washers, Welding etc.	L.S.	1	2900.00	2900.00
				Total:	276342.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	273276.00

Sheet
No.5

Cost data for Yard Lighting of 1X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cum	6	222.00	1332.00
8	Sundries	L.S.	1	810.00	810.00
				Total:	211641.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 33/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0.00
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5202820.06

Item Code No. 7003					
GIS 33/11 KV 2 x 5 MVA (for cities Amravati, Nagpur, Pune, Bhandup, Kalyan & Nashik)					
Cost data for 33/11 KV, 2 X 5 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 33/11 KV, 5 MVA	No	2	3003469.00	6006938.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	2	1265000.00	2530000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	No.	1	1592963.00	1592963.00
5	XLPE Cable 33 KV, 3 C / 300 mm sq.	Mtr.	200	1737.00	347400.00
6	33 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	67830.00	542640.00
7	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
8	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
9	33 KV Post Insulator	Nos	6	918.00	5508.00
10	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11 KV Indoor GIS Switchgear (I/C) 800 A	No	2	843333.00	1686666.00
12	11 KV Indoor GIS Switchgear (O/G) 400A	No.	6	796481.00	4778886.00
13	11 KV GIS Bus bar with Buscoupler and Bus riser 800 A	No	1	1204093.00	1204093.00
14	XLPE Cable 11 KV, 3 C / 300 mm sq.	Mtr.	2000	1194.00	2388000.00
15	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	48	1662.00	79776.00
16	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
17	Earthing complete as per Sheet no.2	Set	2	246832.00	493664.00
18	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	274659.20	549318.40
19	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
20	Clamps and Connectors as per Sheet no.5	No.	1	251340.00	251340.00
21	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
22	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
23	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
24	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	199541.40	199541.40
	Cost of material				26011628.70

1	Transportation on material	4.00%	1040465
2	T&P on material cost	1.00%	260116
3	Contigencies on material	2.50%	650291
5	Erection cost on material	5.00%	1300581
6	Contractor supervision charges on material	5.00%	1300581
7	Insurance , Labour & Finance Cost	3.00%	780349
	Service Cost		5332384
	Sub-Total		31344013
8	Turnkey Charges	5.00%	1567201

Total **32911213**

9	Civil Works As per Sheet 'C'	No.	1	5289109
	Total Cost of Estimate			38200322

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	41894329	32911213
Civil Works As per Sheet 'C'	6741546	5289109
Total Cost of the Estimate	48635875	38200322

Sheet
No - 1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x5 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors			0.00	
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	274659.20

Sheet
No. 5

Cost data for Clamps & Connectors at 2x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	251340.00

Cost data for Yard Lighting of 2X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	1	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data for Control cable 2X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount	
1	Land Development (As per table A) GIS	150490.00	
2	Control room (As per table B) GIS	2930526.21	
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00	
4	Sanitary Water supply	0.00	
5	Electrification (Lumsum)	100000.00	
6	WBM Road (As per table D) GIS	230185.00	
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16	
8	Metal Spreading (As per table F) GIS	96212.00	
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20	
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20	
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00	
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00	
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00	
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75	
15	Construction of retaining wall. (As per table K) GIS	549876.50	
16	Rain Water Harvesting (As per Table L) Indoor	56519.24	
17	Culvert (As per Table M) Indoor	138225.00	
	Total=	5289109.26	

Item Code No. 7004					
GIS 33/11 KV 2 x 5 MVA (Other Cities)					
Cost data for 33/11 KV, 2 X 5 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 33/11 KV, 5 MVA	No	2	3003469.00	6006938.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	2	1265000.00	2530000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	No.	1	1592963.00	1592963.00
5	XLPE Cable 33 KV, 3 C / 300 mm sq.	Mtr.	200	1737.00	347400.00
6	33 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	67830.00	542640.00
7	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
8	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
9	33 KV Post Insulator	Nos	6	918.00	5508.00
10	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11kV I D switchgear (1 I/c+1 B/c+4O/G)	No	1	1703020.00	1703020.00
12	XLPE Cable 11 KV, 3 C / 300 mm sq.	No.	600	1194.00	716400.00
13	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No	8	1662.00	13296.00
14	Clamps and Connectors as per Sheet no.4	Mtr.	1	273276.00	273276.00
15	S/S Yard lighting as per Sheet no.5	No.	1	211641.00	211641.00
16	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
17	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	Set	1	196242.40	196242.40
18	Control cables for S/S as per Sheet no.7	No.	1	85383.45	85383.45
19	AC Distribution Board 'B' type	No.	1	24325.00	24325.00
	Cost of material				17210666.85

1	Transportation on material	4.00%	688427
2	T&P on material cost	1.00%	172107
3	Contingencies on material	2.50%	430267
5	Erection cost on material	5.00%	860533
6	Contractor supervision charges on material	5.00%	860533
7	Insurance , Labour & Finance Cost	3.00%	516320
	Service Cost		3528187
	Sub-Total		20738854
8	Turnkey Charges	5.00%	1036943
	Total		21775796
9	Civil Works As per Sheet 'C'	No.	1
	Total Cost of Estimate		5289109
			27064905

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	27719500	21775796
Civil Works As per Sheet 'C'	6741546	5289109
Total Cost of the Estimate	34461046	27064905

Sheet
No - 1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x5 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	G.I.Flat 50 x 6 mm	Kg.	1500	66.78	100170.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries such as N/B, Washers, Welding etc.	L.S.	1	2900.00	2900.00
				Total:	276342.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	273276.00

Sheet
No.5

Cost data for Yard Lighting of 1X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cum	6	222.00	1332.00
8	Sundries	L.S.	1	810.00	810.00
				Total:	211641.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5289109.26

Item Code No. 7005

GIS 33/11 KV 1 x 10 MVA (for cities Amravati, Nagpur, Pune, Bhandup, Kalyan & Nashik)

Cost data for 33/11 KV, 1X 10 MVA GIS S/s

Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	1	1265000.00	1265000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	No.	1	1592963.00	1592963.00
5	XLPE Cable 33 KV, 3 C / 300 mm sq.	Mtr.	200	1737.00	347400.00
6	33 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	67830.00	542640.00
7	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
8	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
9	33 KV Post Insulator	Nos	6	918.00	5508.00
10	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11 KV Indoor GIS Switchgear (I/C) 800 A	No	1	843333.00	843333.00
12	11 KV Indoor GIS Switchgear (O/G) 400A	No.	4	796481.00	3185924.00
	11 KV GIS Bus bar with Buscoupler and Bus riser 800 A	No	0	1204093.00	0.00
13	XLPE Cable 11 KV, 3 C / 300 mm sq.	Mtr.	2000	1194.00	2388000.00
14	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	48	1662.00	79776.00
15	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
16	Earthing complete as per Sheet no.2	Set	2	246832.00	493664.00
17	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	346332.20	692664.40
18	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
19	Clamps and Connectors as per Sheet no.5	No.	1	251340.00	251340.00
20	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
21	S/S Yard lighting as per Sheet no.7	No.	1	218279.00	218279.00
22	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
23	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	199541.40	199541.40
	Cost of material				19932250.70

1	Transportation on material	4.00%	797290
2	T&P on material cost	1.00%	199323
3	Contigencies on material	2.50%	498306
5	Erection cost on material	5.00%	996613
6	Contractor supervision charges on material	5.00%	996613
7	Insurance , Labour & Finance Cost	3.00%	597968

Service Cost**Sub-Total**

8	Turnkey Charges	5.00%	1200918
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Total**25219280**

9	Civil Works As per Sheet 'C'	No.	1	5202820
	Total Cost of Estimate			30422100

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	32102883	25219280
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	38734444	30422100

Sheet
No - 1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x5 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for 0.2 ACSR	Nos.	36	609.00	21924.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors			0.00	
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	346332.20

Sheet
No. 5

Cost data for Clamps & Connectors at 2x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	251340.00

Sheet
No.7

Cost data for Yard Lighting of 2X 10 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	Armoured Copper control cable 4C X 2.5 Sq mm	Mtr.	250	87.60	21900.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	218279.00

Sheet
No.8

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Sheet
No.9

Cost data for Control cable 2X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount	
1	Land Development (As per table A) GIS	150490.00	
2	Control room (As per table B) GIS	2930526.21	
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00	
4	Sanitary Water supply	0.00	
5	Electrification (Lumsum)	100000.00	
6	WBM Road (As per table D) GIS	230185.00	
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16	
8	Metal Spreading (As per table F) GIS	96212.00	
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20	
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0.00	
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00	
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00	
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00	
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75	
15	Construction of retaining wall. (As per table K) GIS	549876.50	
16	Rain Water Harvesting (As per Table L) Indoor	56519.24	
17	Culvert (As per Table M) Indoor	138225.00	
	Total=	5202820.06	

Item Code No. 7006					
GIS 33/11 KV 1 x 10 MVA (Other cities)					
Cost data for 33/11 KV, 1X 10 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 33/11 KV, 10 MVA	No	1	4687202.00	4687202.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	1	1265000.00	1265000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	1	1265000.00	1265000.00
4	XLPE Cable 33 KV, 3 C / 300 mm sq.	Mtr.	200	1737.00	347400.00
5	33 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	67830.00	542640.00
6	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
7	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
8	33 KV Post Insulator	Nos	6	918.00	5508.00
9	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
10	11kV I D switchgear (1 I/c+1 B/c+4O/G)	No	1	1703020.00	1703020.00
11	XLPE Cable 11 KV, 3 C / 300 mm sq.	No.	300	1194.00	358200.00
12	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No	4	1662.00	6648.00
13	Clamps and Connectors as per Sheet no.4	Mtr.	1	390606.00	390606.00
14	S/S Yard lighting as per Sheet no.5	No.	1	211641.00	211641.00
15	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
16	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	Set	1	196242.40	196242.40
17	Control cables for S/S as per Sheet no.7	No.	1	85383.45	85383.45
18	AC Distribution Board 'B' type	No.	1	24325.00	24325.00
	Cost of material				11520449.85

1	Transportation on material	4.00%	460818
2	T&P on material cost	1.00%	115204
3	Contingencies on material	2.50%	288011
5	Erection cost on material	5.00%	576022
6	Contractor supervision charges on material	5.00%	576022
7	Insurance , Labour & Finance Cost	3.00%	345613
	Service Cost		2361692
	Sub-Total		13882142
8	Turnkey Charges	5.00%	694107
	Total		14576249
9	Civil Works As per Sheet 'C'	No.	1
	Total Cost of Estimate		5202820
			19779069

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	18554837	14576249
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	25186397	19779069

Sheet
No - 1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x5 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	G.I.Flat 50 x 6 mm	Kg.	1500	66.78	100170.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries such as N/B, Washers, Welding etc.	L.S.	1	2900.00	2900.00
				Total:	276342.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
7	Wedge Connectors			0.00	
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
				Total:	390606.00

Sheet
No.5

Cost data for Yard Lighting of 1X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cum	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	211641.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0.00
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5202820.06

Item Code No. 7007					
GIS 33/11 KV 2 x 10 MVA(for cities Amravati, Nagpur, Pune, Bhandup, Kalyan & Nashik)					
Cost data for 33/11 KV, 2X 10 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 33/11 KV, 10 MVA	No	2	4687202.00	9374404.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	2	1265000.00	2530000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	No.	1	1592963.00	1592963.00
5	XLPE Cable 33 KV, 3 C / 300 mm sq.	Mtr.	200	1737.00	347400.00
6	33 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	67830.00	542640.00
7	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
8	33 KV Lightning Arrestors (Station type)	Set	4	13571.00	54284.00
9	33 KV Post Insulator	Nos	6	918.00	5508.00
10	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11 KV Indoor GIS Switchgear (I/C) 800 A	No	2	843333.00	1686666.00
12	11 KV Indoor GIS Switchgear (O/G) 400A	No.	8	796481.00	6371848.00
13	11 KV GIS Bus bar with Buscoupler and Bus riser 800 A	No	1	1204093.00	1204093.00
14	XLPE Cable 11 KV, 3 C / 300 mm sq.	Mtr.	2000	1194.00	2388000.00
15	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	48	1662.00	79776.00
16	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
17	Earthing complete as per Sheet no.2	Set	2	246832.00	493664.00
18	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	346332.20	692664.40
19	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
20	Clamps and Connectors as per Sheet no.5	No.	1	251340.00	251340.00
21	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
22	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
23	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
24	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	199541.40	199541.40
	Cost of material				31115402.70

1	Transportation on material	4.00%	1244616
2	T&P on material cost	1.00%	311154
3	Contigencies on material	2.50%	777885
5	Erection cost on material	5.00%	1555770
6	Contractor supervision charges on material	5.00%	1555770
7	Insurance , Labour & Finance Cost	3.00%	933462
	Service Cost		6378658
	Sub-Total		37494060
8	Turnkey Charges	5.00%	1874703

Total **39368763**

9	Civil Works As per Sheet 'C'	No.	1	5314200
	Total Cost of Estimate			44682963

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	50114468	39368763
Civil Works As per Sheet 'C'	6773527	5314200
Total Cost of the Estimate	56887994	44682963

Sheet
No - 1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x5 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 1x 10 MVA,33/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for 0.2 ACSR	Nos.	36	609.00	21924.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	346332.20

Sheet
No. 5

Cost data for Clamps & Connectors at 2x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
				Total:	251340.00

Cost data for Yard Lighting of 2X 10 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data for Control cable 2X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	25090.97
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5314200.23

Item Code No. 7008					
GIS 33/11 KV 2 x 10 MVA (Other Cities)					
Cost data for 33/11 KV, 2X 10 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 33/11 KV, 10 MVA	No	2	4687202.00	9374404.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	2	1265000.00	2530000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	Mtr.	1	1592963.00	1592963.00
5	XLPE Cable 33 KV, 3 C / 300 mm sq.	No.	200	1737.00	347400.00
6	33 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	Set	8	67830.00	542640.00
7	33 KV Isolators with EB (800 A)	Set	2	55190.00	110380.00
8	33 KV Lightning Arrestors (Station type)	Nos	4	13571.00	54284.00
9	33 KV Post Insulator	Nos	6	918.00	5508.00
10	Gantry Structure/Steel section for 33 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11kV I D switchgear (2 I/c+1 B/c+8O/G)	No	1	3117222.00	3117222.00
12	XLPE Cable 11 KV, 3 C / 300 mm sq.	No.	600	1194.00	716400.00
13	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No	8	1662.00	13296.00
14	Clamps and Connectors as per Sheet no.4	Mtr.	1	452460.00	452460.00
15	S/S Yard lighting as per Sheet no.5	No.	1	215879.00	215879.00
16	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
17	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	Set	1	196242.40	196242.40
18	Control cables for S/S as per Sheet no.7	No.	1	171605.90	171605.90
19	AC Distribution Board 'B' type	No.	1	24325.00	24325.00
	Cost of material				22261979.30

1	Transportation on material	4.00%	890479
2	T&P on material cost	1.00%	222620
3	Contingencies on material	2.50%	556549
5	Erection cost on material	5.00%	1113099
6	Contractor supervision charges on material	5.00%	1113099
7	Insurance , Labour & Finance Cost	3.00%	667859
	Service Cost		4563706
	Sub-Total		26825685
8	Turnkey Charges	5.00%	1341284
	Total		28166969
9	Civil Works As per Sheet 'C'	No.	1
	Total Cost of Estimate		5314200
			33481170

Particulars	DPR Amount	Tender/ Estimate Amount
		61.06%
Cost with overheads on Material	35855144	28166969
Civil Works As per Sheet 'C'	6773527	5314200
Total Cost of the Estimate	42628671	33481170

Sheet
No - 1

Cost data for 33 KV Gantry M.S.Structure/Steel Section for 1x5 MVA S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 10 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 2x10 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 2x10 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
7	Wedge Connectors			0.00	
a)	DOG TO DOG or equivalent AAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
				Total:	452460.00

Sheet
No.5

Cost data for Yard Lighting of 2X 10 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 10 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 2 X 10 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	25090.97
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5314200.23

Item Code No. 7009					
GIS 22/11 KV 1 x 5 MVA(for cities Amravati, Nagpur, Pune, Bhandup, Kalyan & Nashik)					
Cost data for 22/11 KV, 1 X 5 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	1	3305209.00	3305209.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	1	1265000.00	1265000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	No.	1	1592963.00	1592963.00
5	XLPE Cable 22 KV, 3 C / 300 mm sq.	Mtr.	200	1464.00	292800.00
6	22 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	16325.00	130600.00
7	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
8	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
9	22 KV Post Insulator	Nos	6	835.00	5010.00
10	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11 KV Indoor GIS Switchgear (I/C) 800 A	No	1	843333.00	843333.00
12	11 KV Indoor GIS Switchgear (O/G) 400A	No.	3	796481.00	2389443.00
	11 KV GIS Bus bar with Buscoupler and Bus riser 800 A	No	0	1204093.00	0.00
13	XLPE Cable 11 KV, 3 C / 300 mm sq.	Mtr.	2000	1194.00	2388000.00
14	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	48	1662.00	79776.00
15	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
16	Earthing complete as per Sheet no.2	Set	2	246832.00	493664.00
17	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	274659.20	549318.40
18	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
19	Clamps and Connectors as per Sheet no.5	No.	1	183453.00	183453.00
20	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
21	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
22	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
23	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	195591.40	195591.40
	Cost of material				17035021.70

1	Transportation on material	4.00%	681401
2	T&P on material cost	1.00%	170350
3	Contigencies on material	2.50%	425876
5	Erection cost on material	5.00%	851751
6	Contractor supervision charges on material	5.00%	851751
7	Insurance , Labour & Finance Cost	3.00%	511051
	Service Cost		3492179
	Sub-Total		20527201
8	Turnkey Charges	5.00%	1026360

Total **21553561**

9	Civil Works As per Sheet 'C'	No.	1	5202820
	Total Cost of Estimate			26756381

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	27436606	21553561
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	34068167	26756381

Sheet
No.1

Cost data for 22 KV Gantry M.S.structure/steel section for 2x5 MVA Sub stn. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x5 MVA at 22/11 KV sub stn. (outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No.3

Cost data of Structure for 22 KV CT & PT at 2x5 MVA 22/11 KV Sub Stn.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 2x5 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors			0.00	
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	274659.20

Cost data for Clamps & Connectors at 2x5 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	183453.00

Cost data for Yard Lighting of 2x5 MVA , 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
					215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x5 MVA 22/11 KV sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	195591.40

Cost data for Control cable 2X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0.00
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
		5202820.06

Item Code No. 7010					
GIS 22/11 KV 1 x 5 MVA (other cities)					
Cost data for 22/11 KV, 1 X 5 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	1	3305209.00	3305209.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	1	1265000.00	1265000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	1	1265000.00	1265000.00
4	XLPE Cable 22 KV, 3 C / 300 mm sq.	Mtr.	200	1464.00	292800.00
5	22 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	16325.00	130600.00
6	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
7	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
8	22 KV Post Insulator	Nos	6	835.00	5010.00
9	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
10	11kV I D switchgear (1 I/c+1 B/c+4O/G)	No	1	1703020.00	1703020.00
11	XLPE Cable 11 KV, 3 C / 300 mm sq.	No.	300	1194.00	358200.00
12	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No	4	1662.00	6648.00
13	Clamps and Connectors as per Sheet no.4	Mtr.	1	273276.00	273276.00
14	S/S Yard lighting as per Sheet no.5	No.	1	211641.00	211641.00
15	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
16	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	Set	1	196242.40	196242.40
17	Control cables for S/S as per Sheet no.7	No.	1	85383.45	85383.45
18	AC Distribution Board 'B' type	No.	1	24325.00	24325.00
	Cost of material				9519954.85

1	Transportation on material	4.00%	380798
2	T&P on material cost	1.00%	95200
3	Contingencies on material	2.50%	237999
5	Erection cost on material	5.00%	475998
6	Contractor supervision charges on material	5.00%	475998
7	Insurance , Labour & Finance Cost	3.00%	285599
	Service Cost		1951591
	Sub-Total		11471546
8	Turnkey Charges	5.00%	573577
	Total		12045123
9	Civil Works As per Sheet 'C'	No.	1
	Total Cost of Estimate		5202820
			17247943

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	15332839	12045123
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	21964400	17247943

Sheet
No.1

Cost data for 22 KV Gantry M.S.structure/steel section for 2x5 MVA Sub stn. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	G.I.Flat 50 x 6 mm	Kg.	1500	66.78	100170.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries such as N/B, Washers, Welding etc.	L.S.	1	2900.00	2900.00
				Total:	276342.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
				Total:	273276.00

Sheet
No.5

Cost data for Yard Lighting of 1X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cum	6	222.00	1332.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	211641.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Str

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0.00
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5202820.06

Item Code No. 7011					
GIS 22/11 KV 2 x 5 MVA (for cities Amravati, Nagpur, Pune, Bhandup, Kalyan & Nashik)					
Cost data for 22/11 KV, 2 X 5 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	2	3305209.00	6610418.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	2	1265000.00	2530000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	No.	1	1592963.00	1592963.00
5	XLPE Cable 22 KV, 3 C / 300 mm sq.	Mtr.	200	1464.00	292800.00
6	22 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	16325.00	130600.00
7	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
8	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
9	22 KV Post Insulator	Nos	6	835.00	5010.00
10	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11 KV Indoor GIS Switchgear (I/C) 800 A	No	2	843333.00	1686666.00
12	11 KV Indoor GIS Switchgear (O/G) 400A	No.	6	796481.00	4778886.00
13	11 KV GIS Bus bar with Buscoupler and Bus riser 800 A	No	1	1204093.00	1204093.00
14	XLPE Cable 11 KV, 3 C / 300 mm sq.	Mtr.	2000	1194.00	2388000.00
15	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	48	1662.00	79776.00
16	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
17	Earthing complete as per Sheet no.2	Set	2	246832.00	493664.00
18	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	274659.20	549318.40
19	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
20	Clamps and Connectors as per Sheet no.5	No.	1	183453.00	183453.00
21	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
22	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
23	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
24	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	195591.40	195591.40
	Cost of material				26042099.70

1	Transportation on material	4.00%	1041684
2	T&P on material cost	1.00%	260421
3	Contigencies on material	2.50%	651052
5	Erection cost on material	5.00%	1302105
6	Contractor supervision charges on material	5.00%	1302105
7	Insurance , Labour & Finance Cost	3.00%	781263
	Service Cost		5338630
	Sub-Total		31380730
8	Turnkey Charges	5.00%	1569037

Total **32949767**

9	Civil Works As per Sheet 'C'	No.	1	5289109
	Total Cost of Estimate			38238876

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	41943406	32949767
Civil Works As per Sheet 'C'	6741546	5289109
Total Cost of the Estimate	48684951	38238876

Sheet
No.1

Cost data for 22 KV Gantry M.S.structure/steel section for 2x5 MVA Sub stn. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x5 MVA at 22/11 KV sub stn. (outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No.3

Cost data of Structure for 22 KV CT & PT at 2x5 MVA 22/11 KV Sub Stn.(Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 2x5 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Disc Insulator 11 KV 70 KN	Nos.	36	344.00	12384.00
7	Strain Hardware for Dog0.1 or Equ.AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 100 mm ²	Rmt.	150	51.82	7773.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors			#N/A	
a)	DOG TO DOG or equivalent AAAC	Nos.	18	559.00	10062.00
b)	T-Connector for 100 sq mm conductor	Nos.	18	733.00	13194.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	274659.20

Cost data for Clamps & Connectors at 2x5 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	183453.00

Cost data for Yard Lighting of 2x5 MVA , 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cmt	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
					215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x5 MVA 22/11 KV sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kV Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	10	204.00	2040.00
11	L.T. XLPE armoured cable 3 1/2 C 50 sq.mm.	Rmt.	50	150.00	7500.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	195591.40

Cost data for Control cable 2X5 MVA 22/11 KV Sub.Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5289109.26

Item Code No. 7012					
GIS 22/11 KV 2 x 5 MVA (other cities)					
Cost data for 22/11 KV, 2 X 5 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 22/11 KV, 5 MVA (DY-11)	No	2	3305209.00	6610418.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	2	1265000.00	2530000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	No.	1	1592963.00	1592963.00
5	XLPE Cable 22 KV, 3 C / 300 mm sq.	Mtr.	200	1464.00	292800.00
6	22 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	16325.00	130600.00
7	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
8	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
9	22 KV Post Insulator	Nos	6	835.00	5010.00
10	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11kV I D switchgear (2 I/c+1 B/c+8O/G)	No	1	3117222.00	3117222.00
12	XLPE Cable 11 KV, 3 C / 300 mm sq.	No.	600	1194.00	716400.00
13	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No	8	1662.00	13296.00
14	Clamps and Connectors as per Sheet no.4	Mtr.	1	452460.00	452460.00
15	S/S Yard lighting as per Sheet no.5	No.	1	215879.00	215879.00
16	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
17	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	Set	1	196242.40	196242.40
18	Control cables for S/S as per Sheet no.7	No.	1	171605.90	171605.90
19	AC Distribution Board 'B' type	No.	1	24325.00	24325.00
	Cost of material				18996821.30

1	Transportation on material	4.00%	759873
2	T&P on material cost	1.00%	189968
3	Contigencies on material	2.50%	474921
5	Erection cost on material	5.00%	949841
6	Contractor supervision charges on material	5.00%	949841
7	Insurance , Labour & Finance Cost	3.00%	569905
	Service Cost		3894348
	Sub-Total		22891170
8	Turnkey Charges	5.00%	1144558
	Total		24035728
9	Civil Works As per Sheet 'C'	No.	1
	Total Cost of Estimate		5289109
			29324837

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	30596280	24035728
Civil Works As per Sheet 'C'	6741546	5289109
Total Cost of the Estimate	37337826	29324837

Sheet
No.1

Cost data for 22 KV Gantry M.S.structure/steel section for 2x5 MVA Sub stn. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 2x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 2x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
7	Wedge Connectors			#N/A	
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
				Total:	452460.00

Sheet
No.5

Cost data for Yard Lighting of 2X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 2 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5289109.26

Item Code No. 7013

GIS 22/11 KV 1 x 10 MVA (for cities Amravati, Nagpur, Pune, Bhandup, Kalyan & Nashik)

Cost data for 22/11 KV, 1X 10 MVA GIS S/s

Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	1	4769649.00	4769649.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	1	1265000.00	1265000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	No.	1	1592963.00	1592963.00
5	XLPE Cable 22 KV, 3 C / 300 mm sq.	Mtr.	200	1464.00	292800.00
6	22 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	16325.00	130600.00
7	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
8	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
9	22 KV Post Insulator	Nos	6	835.00	5010.00
10	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11 KV Indoor GIS Switchgear (I/C) 800 A	No	1	843333.00	843333.00
12	11 KV Indoor GIS Switchgear (O/G) 400A	No.	4	796481.00	3185924.00
	11 KV GIS Bus bar with Buscoupler and Bus riser 800 A	No	0	1204093.00	0.00
13	XLPE Cable 11 KV, 3 C / 300 mm sq.	Mtr.	2000	1194.00	2388000.00
14	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	48	1662.00	79776.00
15	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
16	Earthing complete as per Sheet no.2	Set	2	246832.00	493664.00
17	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	345540.20	691080.40
18	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
19	Clamps and Connectors as per Sheet no.5	No.	1	188223.00	188223.00
20	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
21	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
22	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
23	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	199541.40	199541.40
	Cost of material				19446424.70

1	Transportation on material	4.00%	777857
2	T&P on material cost	1.00%	194464
3	Contigencies on material	2.50%	486161
5	Erection cost on material	5.00%	972321
6	Contractor supervision charges on material	5.00%	972321
7	Insurance , Labour & Finance Cost	3.00%	583393

Service Cost

Sub-Total

8	Turnkey Charges	5.00%	1171647
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Total

24604589

9	Civil Works As per Sheet 'C'	No.	1	5202820
	Total Cost of Estimate			29807409

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	31320412	24604589
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	37951972	29807409

Sheet
No. 1

Cost data for 22 KV Gantry M.S.Structure/Steel Section for 2x 10 MVA, 22/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 10 MVA at 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No.3

Cost data of Structure for 22 KV CT & PT at 2x 10 MVA, 22/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 2x5 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Strain Hardware for 0.2 ACSR	Nos.	36	609.00	21924.00
7	Strain Hardware for Dog 0.1 or Equ. AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	345540.20

Cost data for Clamps & Connectors at 2x10 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	30	718.00	21540.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	188223.00

Cost data for Yard Lighting of 2X10 MVA, 22/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x10 MVA 22/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data Control cable 2 X10 MVA 22/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0.00
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5202820.06

Item Code No. 7014					
GIS 22/11 KV 1 x 10 MVA (other cities)					
Cost data for 22/11 KV, 1X 10 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	1	4769649.00	4769649.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	1	1265000.00	1265000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	1	1265000.00	1265000.00
4	XLPE Cable 22 KV, 3 C / 300 mm sq.	Mtr.	200	1464.00	292800.00
5	22 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	16325.00	130600.00
6	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
7	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
8	22 KV Post Insulator	Nos	6	835.00	5010.00
9	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
10	11kV I D switchgear (1 I/c+1 B/c+4O/G)	No	1	1703020.00	1703020.00
11	XLPE Cable 11 KV, 3 C / 300 mm sq.	No.	300	1194.00	358200.00
12	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No	4	1662.00	6648.00
13	Clamps and Connectors as per Sheet no.4	Mtr.	1	390606.00	390606.00
14	S/S Yard lighting as per Sheet no.5	No.	1	211641.00	211641.00
15	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
16	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	Set	1	196242.40	196242.40
17	Control cables for S/S as per Sheet no.7	No.	1	85383.45	85383.45
18	AC Distribution Board 'B' type	No.	1	24325.00	24325.00
	Cost of material				11101724.85

1	Transportation on material	4.00%	444069
2	T&P on material cost	1.00%	111017
3	Contingencies on material	2.50%	277543
5	Erection cost on material	5.00%	555086
6	Contractor supervision charges on material	5.00%	555086
7	Insurance , Labour & Finance Cost	3.00%	333052
	Service Cost		2275854
	Sub-Total		13377578
8	Turnkey Charges	5.00%	668879
	Total		14046457
9	Civil Works As per Sheet 'C'	No.	1
	Total Cost of Estimate		5202820
			19249277

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	17880438	14046457
Civil Works As per Sheet 'C'	6631561	5202820
Total Cost of the Estimate	24511999	19249277

Sheet
No. 1

Cost data for 22 KV Gantry M.S.Structure/Steel Section for 2x 10 MVA, 22/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 1x 5 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	G.I.Flat 50 x 6 mm	Kg.	1500	66.78	100170.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries such as N/B, Washers, Welding etc.	L.S.	1	2900.00	2900.00
				Total:	276342.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 1x5 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 1x5 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	24	992.00	23808.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 33 KV C.T.	Nos.	6	1450.00	8700.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	6	2100.00	12600.00
7	Wedge Connectors				
a)	DOG TO DOG or equivalent AAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
				Total:	390606.00

Sheet
No.5

Cost data for Yard Lighting of 1X 5 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	7	3027.00	21189.00
6	Red Bricks	No.	1000	5.50	5500.00
7	Sand	Cum	6	222.00	1332.00
8	Sundries	L. S.	-	810.00	810.00
				Total:	211641.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 1x 5 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Cost data for Control cable 1 X 5 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	125	331.39	41423.75
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	130	216.24	28111.20
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	55	87.60	4818.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	50	55.11	2755.50
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	100	78.00	7800.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	85383.45

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	0.00
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	0.00
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
		5202820.06

Item Code No. 7015					
GIS 22/11 KV 2 x 10 MVA (for cities Amravati, Nagpur, Pune, Bhandup, Kalyan & Nashik)					
Cost data for 22/11 KV, 2X 10 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	2	4769649.00	9539298.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	2	1265000.00	2530000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	No.	1	1592963.00	1592963.00
5	XLPE Cable 22 KV, 3 C / 300 mm sq.	Mtr.	200	1464.00	292800.00
6	22 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	No.	8	16325.00	130600.00
7	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
8	22 KV Lightning Arrestors (Station type)	Set	4	11884.00	47536.00
9	22 KV Post Insulator	Nos	6	835.00	5010.00
10	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11 KV Indoor GIS Switchgear (I/C) 800 A	No	2	843333.00	1686666.00
12	11 KV Indoor GIS Switchgear (O/G) 400A	No.	8	796481.00	6371848.00
13	11 KV GIS Bus bar with Buscoupler and Bus riser 800 A	No	1	1204093.00	1204093.00
14	XLPE Cable 11 KV, 3 C / 300 mm sq.	Mtr.	2000	1194.00	2388000.00
15	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No.	48	1662.00	79776.00
16	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
17	Earthing complete as per Sheet no.2	Set	2	246832.00	493664.00
18	Take off structure for 3 outgoing feeder as per Sheet no.4	No.	2	345540.20	691080.40
19	11 kV Pin Insulators with G.I. Pins	No.	24	135.00	3240.00
20	Clamps and Connectors as per Sheet no.5	No.	1	188223.00	188223.00
21	L.As. 11 KV (Gapless type) with disconnector	Set	2	1268.00	2536.00
22	S/S Yard lighting as per Sheet no.7	No.	1	215879.00	215879.00
23	Control cables for S/S as per Sheet no.9	No.	1	171605.90	171605.90
24	11/0.43 KV x 100 KVA station Transformer as per Sheet no.8	No.	1	199541.40	199541.40
	Cost of material				30714423.70

1	Transportation on material	4.00%	1228577
2	T&P on material cost	1.00%	307144
3	Contigencies on material	2.50%	767861
5	Erection cost on material	5.00%	1535721
6	Contractor supervision charges on material	5.00%	1535721
7	Insurance , Labour & Finance Cost	3.00%	921433
	Service Cost		6296457
	Sub-Total		37010881
8	Turnkey Charges	5.00%	1850544

Total **38861425**

9	Civil Works As per Sheet 'C'	No.	1	5314200
	Total Cost of Estimate			44175625

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	49468651	38861425
Civil Works As per Sheet 'C'	6773527	5314200
Total Cost of the Estimate	56242178	44175625

Sheet
No. 1

Cost data for 22 KV Gantry M.S.Structure/Steel Section for 2x 10 MVA, 22/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 10 MVA at 22/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No.3

Cost data of Structure for 22 KV CT & PT at 2x 10 MVA, 22/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 22 KV PT	Kg.	315	51.80	16317.00
2	Structure for 22 KV CT	Kg.	360	51.80	18648.00
3	Structure for 22 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No : 4

Cost data for Take off structure for 11 KV Feeders 3 outlets at 2x5 MVA 22/11 KV Sub Stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	RSJ 116x100, 9 m long	Nos.	8	9254.00	74032.00
2	MS Channel 100x50x6 mm	Kg.	1610	51.80	83398.00
3	MS angle 50x50x6 mm	Kg.	100	51.80	5180.00
4	MS Flat 75x10 mm	Kg.	80	48.50	3880.00
5	11KV A.B. Switch, 400 A	Nos.	3	9240.00	27720.00
6	Strain Hardware for 0.2 ACSR	Nos.	36	609.00	21924.00
7	Strain Hardware for Dog 0.1 or Equ. AAAC.	Nos.	36	322.00	11592.00
8	11 kV Pin Insulators with G.I. Pins	Nos.	9	135.00	1215.00
9	Earthing Sets H.T	Sets	3	342.00	1026.00
10	L.As. 11 KV (Gapless type) with disconnector	Sets	3	1268.00	3804.00
11	AAAC 232 mm ²	Rmt.	150	127.40	19110.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	G.I.Nut Bolts	Kg.	50	82.90	4145.00
14	Concreting ration 1:3:6	Cmt.	4	3027.00	12108.00
15	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	18	718.00	12924.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	18	3352.00	60336.00
16	Miscellaneous material	LS	1	475.00	475.00
				Total:	345540.20

Cost data for Clamps & Connectors at 2x10 MVA 22/11 kv sub stn. (Outdoor)

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Wedge Connectors				
a)	PANTHER TO PANTHER or equivalent AAAC	Nos.	30	718.00	21540.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
2	Clamps for 22 KV Isolator	Nos.	18	1020.00	18360.00
3	Connectors for T/F Bushing	Nos.	6	3783.00	22698.00
4	Clamps for 22 KV C.T.	Nos.	6	1425.00	8550.00
5	Clamps for 22 KV P.T.	Nos.	3	1425.00	4275.00
6	Clamp for 22 KV VCB	Nos.	6	2040.00	12240.00
				Total:	188223.00

Cost data for Yard Lighting of 2X10 MVA, 22/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x10 MVA 22/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	MS Channel 100x50x6 mm	Kg.	290	51.80	15022.00
2	M.S.Channel 75x40x6 mm	Kg.	15	51.80	777.00
3	MS Flat 75x10 mm	Kg.	20	48.50	970.00
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV A.B. Switch, 400 A	Set	1	9240.00	9240.00
7	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
8	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
9	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
10	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
11	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
12	Earthing Sets H.T	Nos.	3	342.00	1026.00
13	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
14	Coal	Kg.	200	15.00	3000.00
15	Salt	Kg.	200	7.00	1400.00
16	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
17	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
18	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	199541.40

Cost data Control cable 2 X10 MVA 22/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	25090.97
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5314200.23

Item Code No. 7016					
GIS 22/11 KV 2 x 10 MVA (other cities)					
Cost data for 22/11 KV, 2X 10 MVA GIS S/s					
Sr. No.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
Sr. No	Description	Unit	Qty.	Rate/Unit Rs.	Total Cost Rs.
A	33/22 kV Switchgear part				
1	Power Transformer 22/11 KV, 10 MVA (DY-11)	No	2	4769649.00	9539298.00
2	33 KV Indoor GIS Switchgear (I/C) 1250A	No.	2	1265000.00	2530000.00
3	33 KV Indoor GIS Switchgear (O/G TF) 1250A	No.	2	1265000.00	2530000.00
4	33 KV GIS Bus bar with Buscoupler and Bus riser 1250 A	Mtr.	1	1592963.00	1592963.00
5	XLPE Cable 22 KV, 3 C / 300 mm sq.	No.	200	1464.00	292800.00
6	22 kV Silicon coated touchproof Indoor termination joint (AI) kit for XLPE 3 C X 300 sqmm	Set	8	16325.00	130600.00
7	22 KV Isolators with EB (800 A)	Set	2	41547.00	83094.00
8	22 KV Lightning Arrestors (Station type)	Nos	4	11884.00	47536.00
9	22 KV Post Insulator	Nos	6	835.00	5010.00
10	Gantry Structure/Steel section for 22 KV Bus as per Sheet No.1	Nos	1	194970.00	194970.00
B	11 kV Switchgear part				
11	11kV I D switchgear (2 I/c+1 B/c+8O/G)	No	1	3117222.00	3117222.00
12	XLPE Cable 11 KV, 3 C / 300 mm sq.	No.	600	1194.00	716400.00
13	11 kV heat shrinkable Indoor termination joint kit for 3 C X 300 sqmm	No	8	1662.00	13296.00
14	Clamps and Connectors as per Sheet no.4	Mtr.	1	452460.00	452460.00
15	S/S Yard lighting as per Sheet no.5	No.	1	215879.00	215879.00
16	Battery set 30 Volt, 100 AH with Battery charger	No.	1	72000.00	72000.00
17	11/0.43 KV x 100 KVA station Transformer as per Sheet no.6	Set	1	196242.40	196242.40
18	Control cables for S/S as per Sheet no.7	No.	1	171605.90	171605.90
19	AC Distribution Board 'B' type	No.	1	24325.00	24325.00
	Cost of material				21925701.30

1	Transportation on material	4.00%	877028
2	T&P on material cost	1.00%	219257
3	Contingencies on material	2.50%	548143
5	Erection cost on material	5.00%	1096285
6	Contractor supervision charges on material	5.00%	1096285
7	Insurance , Labour & Finance Cost	3.00%	657771
	Service Cost		4494769
	Sub-Total		26420470
8	Turnkey Charges	5.00%	1321024
	Total		27741494
9	Civil Works As per Sheet 'C'	No.	1
	Total Cost of Estimate		5314200
			33055694

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	35313535	27741494
Civil Works As per Sheet 'C'	6773527	5314200
Total Cost of the Estimate	42087061	33055694

Sheet
No. 1

Cost data for 22 KV Gantry M.S.Structure/Steel Section for 2x 10 MVA, 22/11 kv S/S (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Column type HG(6Nos.)-496.0 kg.	MT	2.976	48500.00	144336.00
2	Beam type HA(4 Nos.)-261.0 Kg.	MT	1.044	48500.00	50634.00
				Total:	194970.00

Sheet
No.2

Cost data for Earthing Work at 2x 10 MVA at 33/11 KV S/S

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	M.S.Flat 50 x 6 mm	Kg.	1500	48.50	72750.00
2	Earthing Sets H.T of C.I.pipe 150 mm 3 mtr.	No.	22	6300.00	138600.00
3	Coal	Kg.	1310	15.00	19650.00
4	Salt	Kg.	1310	7.00	9170.00
5	RCC Ring work for earthing pits	No.	22	266.00	5852.00
6	Sundries	L.S.	1	810.00	810.00
				Total:	246832.00

Sheet
No.3

Cost data of Structure for 33 KV CT & PT at 2x10 MVA, 33/11 KV S/Stn.

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt.Rs.
1	Structure for 33 KV PT	Kg.	315	51.80	16317.00
2	Structure for 33 KV CT	Kg.	360	51.80	18648.00
3	Structure for 33 KV L.A.	Kg.	155	51.80	8029.00
4	Structure for Power T/F Neutral Earthing	Kg.	50	51.80	2590.00
5	G.I.Nut Bolts	Kg.	30	82.90	2487.00
				Total:	48071.00

Sheet
No.4

Cost data for Clamps & Connectors at 2x10 MVA, 33/11 KV S/S

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	T-Connector for 200 sq mm conductor(Compression type)	Nos.	60	3352.00	201120.00
2	Clamps for 33 KV Isolator	Nos.	42	992.00	41664.00
3	Connectors for T/F Bushing	Nos.	12	3783.00	45396.00
4	Clamps for 33 KV C.T.	Nos.	12	1450.00	17400.00
5	Clamps for 33 KV P.T.	Nos.	3	1450.00	4350.00
6	Clamps for 33 KV V.C.B.	Nos.	12	2100.00	25200.00
7	Wedge Connectors				
a)	DOG TO DOG or equivalent AAAC	Nos.	30	559.00	16770.00
b)	T-Connector for 200 sq mm conductor(Compression type)	Nos.	30	3352.00	100560.00
				Total:	452460.00

Sheet
No.5

Cost data for Yard Lighting of 2X 10 MVA, 33/11 KV sub station. (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	Flood lights with control gear box & 250w SV Lamp	No.	14	6300.00	88200.00
2	Tubular pole 9 Mtr. Long 88.9C, 137.7 mm	No.	14	4815.00	67410.00
3	L.T. XLPE Armoured cable 4core 16sq.mm.	Mtr.	250	78.00	19500.00
4	L.T. 2 Core Cable 2.5 sqmm Armoured	Mtr.	100	77.00	7700.00
5	Concreting ration 1:3:6	Cmt	8	3027.00	24216.00
6	Red Bricks	No.	1200	5.50	6600.00
7	Sand	Cum	6.5	222.00	1443.00
8	Sundries	L.S.	-	810.00	810.00
				Total:	215879.00

Sheet
No.6

Cost data for 100 KVA, 11/0.43 KV Station Transformer for 2x 10 MVA, 33/11 S/S (Outdoor).

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	G.I.Channel 100x50x6mm	Kg.	290	70.08	20323.20
2	G.I.Channel 75x40x6mm	Kg.	15	70.08	1051.20
3	G.I Flat 75x10 mm	Kg.	20	66.78	1335.60
4	Dist. Transformer 100 KVA, 11/0.43 kv	No.	1	112770.00	112770.00
5	L.T.Dist.Boxes 100 KVA with MCCB	No	1	12822.00	12822.00
6	11KV H.G.Fuses	Nos.	1	1964.00	1964.00
7	L.As. 11 KV (Gapless type) with disconnector	Set	1	1268.00	1268.00
8	11 kv Pin Insulators with G.I. Pins	Nos.	6	135.00	810.00
9	L.T.XLPE Armoured 3.5 Core cable120 sq.mm.	Rmt.	10	329.00	3290.00
10	L.T.XLPE Armoured 3.5 Core cable70 sq.mm.	Rmt.	50	204.00	10200.00
11	Earthing Sets H.T	Nos.	3	342.00	1026.00
12	G.I.Strip (25 X 3 mm)	Kg.	40	66.78	2671.20
13	Coal	Kg.	200	15.00	3000.00
14	Salt	Kg.	200	7.00	1400.00
15	Plinth for station Transformer	Cmt.	5.6	3027.00	16951.20
16	Half round cement pipe (150mm X 1mtr)	Nos.	30	110.00	3300.00
17	G.I.Nut Boltss Washer & Misc Material	L.S	1	2060.00	2060.00
				Total:	196242.40

Sheet
No.7

Cost data for Control cable 2 X 10 MVA, 33/11KV S/Stn

Sr.No.	Description of material	Unit	Qty.	Rate	Amount
1	Armoured Copper control cable 19C X 2.5 Sq mm	Rmt	250	331.39	82847.50
2	Armoured Copper control cable 12C X 2.5 Sq mm	Rmt	260	216.24	56222.40
3	Armoured Copper control cable 4C X 2.5 Sq mm	Rmt	125	87.60	10950.00
4	Armoured Copper control cable 2Cx2.5 sq.mm.	Rmt	100	55.11	5511.00
5	L.T. XLPE Armoured cable 4core 16sq.mm.	RMT	200	78.00	15600.00
6	Miscellaneous material	L.S	1	475.00	475.00
				TOTAL	171605.90

C Cost data for civil works for 22/11 KV Sub Station.

Sr.No.	Particular	Amount
1	Land Development (As per table A) GIS	150490.00
2	Control room (As per table B) GIS	2930526.21
3	Store room of size 8.0m X 6.0 m (As per table C) GIS	0.00
4	Sanitary Water supply	0.00
5	Electrification (Lumsum)	100000.00
6	WBM Road (As per table D) GIS	230185.00
7	Chain link fencing and Barbed wire fencing (As per table E) GIS	537350.16
8	Metal Spreading (As per table F) GIS	96212.00
9	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
10	Equipment Foundations for 1X 5 MVA or 1X10 MVA (As table G2) Hybrid / Indoor / GIS	86289.20
11	Fire Wall for 2 x 10 MVA Power Transformer (as per table G3) Hybrid / Indoor / GIS	25090.97
12	Water Supply arrangement for C/Room and Switch Yard.(As per table H) GIS	52836.00
13	Borewell including pumpset and allied accessories. (As per table I) GIS	101071.00
14	Const.of cable trench with covers in S/Yard. (As per table J) GIS	173239.75
15	Construction of retaining wall. (As per table K) GIS	549876.50
16	Rain Water Harvesting (As per Table L) Indoor	56519.24
17	Culvert (As per Table M) Indoor	138225.00
	Total=	5314200.23

Item Code No. 1230

COST DATA FOR 11 kV SPECIAL DESIGNED TRANSFORMER

S.N.	Description of material	Unit	Qty.	Rate	Amt. Rs.
1	11kV Specially Designed Transformer with all accessories, Control cable, Relays, Contactors, Indicators etc.	Set	1	121670.00	121670
2	11 KV CT for SDT	No	1	10611.00	10611.00
3	11kV Gang operated Three pole double throw change over switch	Set	1	13400.00	13400
4	11kV DP structure with L.A. as per sheet 'A'	No	1	47890.90	47890.90
5	Permanent earthing system by use of Pipe in pipe arrangement, with earthing materials Bentonite clay, salt, coal etc	No	2	6607.00	13214
6	GI Pipe 20 mm	rmt	15	70.08	1051.20
7	16 mm 2 Single core multistrand copper Armored cable.	rmt	15	109.00	1635.00
8	CT Box SMC Type Meter Box (Hinge Type) Size: 400X300X190 mm	No.	1	755.00	755.00
9	Relay Box MS fabricated with powder coating suitable for outdoor installation of Relay.	No.	1	1164.00	1164.00
10	1" PVC pipe for laying control cable	rmt	25	73.00	1825.00
	Cost of Material				213216.10

1	Transportation on material	4.00%	8528.64
2	T&P on material cost	1.00%	2132.16
3	Contingencies on material	2.50%	5330.40
4	Erection cost on material	5.00%	10660.81
5	Contractor supervision charges on material	5.00%	10660.81
6	Insurance , Labour & Finance Cost	3.00%	6396.48
B	Service Cost		43709.30
c	Sub-Total		256925.40
7	Profit	5.00%	12846.27
D	Centages		
E	Tender Cost		269772

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	343406	269772
Total Cost of the Estimate	343406	269772

SHEET A DOUPLE POLE STRUCTURE FOR SPECIAL DESIGN TRANSFORMER

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
2	M.S. Flats(50 X 10mm)	Kg.	12	48.50	582.00
3	M.S.Flat 50 x 6 mm	Kg.	10	48.50	485.00
4	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
5	M.S.Channel 75x40x6 mm	Kg.	42	51.80	2175.60
6	MS angle 50x50x6 mm	Kg.	30	51.80	1554.00
7	11 kV Pin Insulators with G.I. Pins	No.	3	135.00	405.00
8	Strain Hardware for 55 Sq.mm AAAC	Set	6	140.00	840.00
9	Disc Insulator 11 KV 70 KN	No.	6	344.00	2064.00
10	H.T.Stay Set	No.	4	598.00	2392.00
11	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	24	57.45	1378.80
12	Earthing Sets H.T	No	3	342.00	1026.00
13	G.I.Wire 8 SWG/ 6 SWG	kg.	5	57.40	287.00
14	L.As. 11 KV (Gapless type) with disconnector	No.	2	1268.00	2536.00
15	Danger Board in yard.	No.	2	50.00	100.00
16	Concreting ration 1:3:6	Cmt.	2.5	3027.00	7567.50
17	Sundries, such as Nut-Bolts, wedge connectos, Washers, Jumper & Minor fabrication., painting, earthing materials	L.S.	1	810.00	810.00
	Sub-Total A				47890.90

S.N.	Description of material	Unit	Qty.	RT/U Rs.	Amt. Rs.
1	22kV Specially Designed Transformer with all accessories, control cables, Relays, Contactors, Indicators etc.	Set	1	180250.00	180250
2	22 kV CT for SDT	No	1	23767.00	23767.00
3	22kV Gang operated Three pole double throw change over switch	Set	1	6795.00	6795
4	22kV DP structure with L.A. as per sheet 'A'	No	1	52581.90	52581.90
5	Permanent earthing system by use of Pipe in pipe arrangement, with earthing materials Bentonite clay, salt, coal etc	No	2	6607.00	13214
6	GI Pipe 20 mm	No	15	70.08	1051.20
7	16 mm 2 Single core multistrand copper Armored cable.	rmt	15	109.00	1635.00
8	CT Box SMC Type Meter Box (Hinge Type) Size: 400X300X190 mm	No	1	755.00	755.00
9	Relay Box MS fabricated with powder coating suitable for outdoor installation of Relay.	No.	1	1164.00	1164.00
10	1" PVC pipe for laying control cable	rmt	25	73.00	1825.00
	Cost of Material				283038.10

1	Transportation on material	4.00%	11321.52
2	T&P on material cost	1.00%	2830.38
3	Contingencies on material	2.50%	7075.95
4	Erection cost on material	5.00%	14151.91
5	Contractor supervision charges on material	5.00%	14151.91
6	Insurance , Labour & Finance Cost	3.00%	8491.14
B	Service Cost		58022.81
c	Sub-Total		341060.91
7	Profit	5.00%	17053.05
D	Centages		
E	Tender Cost		358114

Particulars	DPR Amount	Tender/ Estimate Amount
	61.06%	26.525%
Cost with overheads on Material	455861	358114
Total Cost of the Estimate	455861	358114

SHEET A DOUPLE POLE STRUCTURE FOR SPECIAL DESIGN TRANSFORMER

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 116x100, 9 m long	No.	2	9254.00	18508.00
2	M.S. Flats(50 X 10mm)	Kg.	12	48.50	582.00
3	M.S.Flat 50 x 6 mm	Kg.	10	48.50	485.00
4	MS Channel 100x50x6 mm	Kg.	100	51.80	5180.00
5	M.S.Channel 75x40x6 mm	Kg.	42	51.80	2175.60
6	MS angle 50x50x6 mm	Kg.	30	51.80	1554.00
7	22 kV Pin Insulators with G.I. Pins	No.	3	336.00	1008.00
8	Strain Hardware for 55 Sq.mm AAAC	No.	6	140.00	840.00
9	Disc Insulator 11 KV 70 KN	No.	12	344.00	4128.00
10	H.T.Stay Set	No.	4	598.00	2392.00
11	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	24	57.45	1378.80
12	Earthing Sets H.T	No	3	342.00	1026.00
13	G.I.Wire 8 SWG/ 6 SWG	kg.	5	57.40	287.00
14	L.A.s 22KV (Gapless type) with disconnecter	No.	2	2280.00	4560.00
15	Danger Board in yard.	No.	2	50.00	100.00
16	Concreting ration 1:3:6	Cmt.	2.5	3027.00	7567.50
16	Sundries, such as Nut-Bolts, wedge connectos, Washers, Jumper & Minor fabrication., painting, earthing materials	L.S.	1	810.00	810.00
	Sub-Total A				52581.90