Maharashtra State Electricity Distribution Company Ltd.

Addendum VI

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Date: 13.06.2024

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BTR No. PHPS/01

MSEDCL has floated Request for Selection of Procurement of 1,000 MW Energy Storage Capacity (For 8 Hours discharge with maximum 5 Hours continuous discharge) for 40 years from ISTS/InSTS Connected Pumped Hydro Storage Plant/s through competitive bidding vide BTR No. PHPS/01 date:09.03.2024 on Bharat Electronictender.com. In this regards some modifications and additions will be made to RfS as below:

S.N.	Clause No	Original Clause	Modified Clause
1.	**RfS** Clause 2.41	"Scheduled Commissioning Date" shall be 48 months from the Effective date of ESFA.	"Scheduled Commissioning Date" shall be **36 months** for at least 50% capacity and full COD in **48 months** from the Effective date of ESFA."
2.	**RfS** 3.28	Performance Bank Guarantee: A Performance Bank Guarantee (PBG) of Rs.12 Lakh/MW for each project as per Format 6.4, is to be submitted by the successful bidder to MSEDCL within 30 days from the date of issue of Letter of Award or before signing of ESFA.	A Performance Bank Guarantee (PBG) of **Rs.10 Lakh/MW** for each project as per Format 6.4, is to be submitted by the successful bidder to MSEDCL within 30 days from the date of issue of Letter of Award or before signing of ESFA. Bidder/s shall be allowed to submit EMD/PBG in form of Payment on Order Instrument (PoI) as an option along with cash deposits or BG.
3.	**RfS** 3.10	Procurer shall be responsible for all transmission charges and losses and any other charges as applicable under the respective regulations beyond Delivery Point.	Clause as per RfS dated: 09.03.2024.
4.	**RfS** Clause 3.9(ii)	The Bidder/s participating as a Single Bidder or as a consortium may seek qualification on the basis of technical capability of its Affiliate(s) for the purpose of meeting the qualification requirements as per clause 3.9(ii) (b)	The Bidder/s participating as a Single Bidder or as a consortium may seek qualification on the basis of technical capability of its Affiliate(s) for the purpose of meeting the qualification requirements as per Clauses 3.9(ii) (C)
5.	**RfS** **3.15**	Allotment of Contracted Capacity: In case the partial capacity offered to the last Successful Bidder is greater than or equal to 30% of the total Quoted Capacity by such Bidder, it shall be mandatory for the last Bidder to accept the partial capacity offered against its Quoted Capacity, subject to the total	Allotment of Contracted Capacity: In case the partial capacity offered to the last Successful Bidder is greater than or equal to 50% of the total Quoted Capacity by such Bidder, it shall be mandatory for the last Bidder to accept the partial capacity offered against its Quoted Capacity, subject to the total cumulative capacity awarded

		cumulative capacity awarded under the RfS not exceeding Se.	under the RfS not exceeding Se.
6.	RfS 3.19	ESS Annual Availability: The Annual availability shall commence from the date of signing of ESFA	The Annual availability shall commence from COD of the Contracted Capacity.
7.	RfS Clause 5	Other Provisions ESSD shall undertake the following activities to achieve the objectives of speedy establishment and implementation of ESS facility at any location of Maharashtra	ESSD shall undertake the following activities to achieve the objectives of speedy establishment and implementation of ESS facility at any location of INDIA
8.	RfS Format 6.6	Format for Financial Requirement - Net Worth Bidders to note that financial parameters of FY 2022-23 (or Calendar Year 2022 as the case may be) shall be considered only if audited annual financial statements of the bidding company/ consortium members/affiliates for the financial Year 2022-23 (or Calendar Year 2023 as the case may be) are not available as on due date of bid submission.	Format for Financial Requirement - Net Worth Bidders to note that financial parameters of FY 2023-24 (or Calendar Year 2023 as the case may be) shall be considered only if audited annual financial statements of the bidding company/ consortium members/affiliates for the financial Year 2023-24 (or Calendar Year 2023 as the case may be) are not available as on due date of bid submission.
9.	RfS Annex. 7.1	Round Trip Efficiency: >75%. Inclusive of all losses upto metering point. Metering at STU injection/ drawl point as per CEA metering regulation.	Round Trip Efficiency: >75%. Inclusive of all losses upto metering point. Metering at STU/CTU injection/ drawl point as per CEA metering regulation.
10.	RfS 3.11, 3.13, 3.19,3.20, Evaluation Criteria	The minimum annual availability of the project shall be 95%.	The minimum annual availability of the project shall be 90% per annum.
11.	RfS 3.9 ii (C)	Qualification Requirements--Bidder/s who have completed EPC in infrastructure projects viz. Power, Hydroelectric, water body projects, dams, metro, road, reservoirs, tunnels etc., with total Project cost equivalent to or more than the amount corresponding to the amount calculated at the rate of Rs 2 Crores/MW for the Quoted Capacity.	Qualification Requirements--Bidder/s who have completed EPC / Item Rate Contracts in infrastructure projects viz. Power, Hydroelectric, water body projects, dams, metro, road, reservoirs, tunnels etc., with total Project cost equivalent to or more than the amount corresponding to the amount calculated at the rate of Rs 2 Crores/MW for the Quoted Capacity.
12	RfS 2.17	Delivery Point": The point at STU/MSETCL periphery, where the power from the Project is injected into the identified STU Substation (including the dedicated transmission line connecting the Project(s) with the substation system) as specified in the RfS document.	Delivery Point": for intra-state PHESS, The Delivery Point shall be the point at STU/MSETCL periphery, where the power from the Project is injected into the identified STU Substation (including the dedicated transmission line connecting the Project(s) with the Maharashtra STU substation system) and for ISTS connected PHESS, Delivery Point shall be point at interface point at CTU substation.

| 13. | **RfS**
Clause 3.13 (i) | **Bidding Component**
Selection of bidders shall be through a competitive bidding process, based on the lowest quoted Total Storage Cost discovered (expressed in INR/MW/annum) during E-Reverse Auction. Bidder shall quote the combination of the following.
- Component A: Annual Fixed Charges (AFC) and
- Component B: Cycle Loss (CL)
The Bidder/s shall quote the AFC (expressed in INR/MW/annum) and declare the Cycle Loss (expressed in %) of the Projects at the time of submission of response to Tender which is constant during the entire term of the ESFA.
Total Storage Cost, which is combination of AFC & Cycle Loss, shall be arrived at and denominated up to two decimal places as per the below formula:
Total Storage Cost = Component A+ (Component A x Component B)
For illustration: If a Bidder declares a Cycle Loss of 15% for a Contracted Capacity of 500 MW, with an Annual Fixed Charge of INR 50,00,000/MW, then
Total Storage Cost computed as per above formula shall be INR 57,50,000/MW/annum. | **Bidding Component**
Selection of bidders shall be through a competitive bidding process, based on the lowest quoted Total Storage Cost discovered (expressed in INR/MW/annum) during E-Reverse Auction. Bidder shall quote the combination of the following.
- **Component A**: Annual Fixed Charges (AFC) and
- **Component B**: Cycle Loss (CL) [It cannot be changed in e-RA]
The Bidder/s shall quote the AFC (expressed in INR/MW/annum) and declare the Cycle Loss (expressed in %) of the Projects at the time of submission of response to Tender which is constant during the entire term of the ESFA.
    a. For **intra state Developer** Total Storage Cost, which is combination of AFC & Cycle Loss, shall be arrived at and denominated up to two decimal places as per the below formula: Total Storage Cost = Component A+ (Component A x Component B). For illustration If a bidder declares a cycle loss of 15% for contracted capacity of 500MW with an annual fixed charge of INR 50,00,000/MW, then Total storage cost computed as per above formula shall be INR 57,50,000/MW/annum.
For interstate state Developer All India **Transmission Charges** declared by NLDC for the month in which bid will be submitted and weekly **Transmission losses** are considered for calculation of total storage cost for evaluation purpose only. Illustration is given in **Table A** enclosed. |

Sd/-
Chief Engineer (Power Purchase)
MSEDCL

	TABLE A	
	Bid Evaluation for Inter State PSP (for illustration purpose)	
SR No		
1	Contracted Capacity (MW)	**1000**
2	Hours of Operation in Pumping mode per Day	**10**
3	Hours of Operation in Generation mode per Day	**8**
4	AFC Quoted by Bidders (Rs/MW/Year)	₹ 50,00,000.00
5	Annual AFC calculated = (4*1)	₹ 5,00,00,00,000.00
6	Cycle loss Quoted by Bidders (%)	25.00%
7	Capacity Required in Pumping Mode (MW) considering declared Cycle loss MW	1250
8	All India Trasmission loss Declared By NLDC for the month in which of Bid Submission Date occurred is to be considered (% Monthly Avg)	3.50%
9	Power to be scheduled by Procurer considering Transmission Loss 3.5%	1293.75
10	Extra Power required for pumping due to T/L considering 10 Hrs pumping MWh	143718.75
11	APC considered (Rs/KWh)	5.5
12	Burden due to Extra pumping power = (10*11)	₹ 79,04,53,125.00
13	Bidderes Quote Considering Declared Cycle loss considered for evaluation =(4+(4*6)	₹ 62,50,000.00
14	Storage Cost considering Cycle Loss (Rs/Per Year)	₹ 6,25,00,00,000.00
15	All India Trasmission Charge Declared By NLDC for the month in which of Bid Submission Date occurred is to be considered (Rs/Unit)	0.52
16	Possible Generation per year (KWh) considering 95% availability and 8 hr/day Generation	2628000000
17	Transmission Charges considered for evaluation (Rs/year) =(15*16)	₹ 1,36,65,60,000.00
18	Total storage cost considering All India Transmission Charges (Rs/Year) =(14+17)	₹ 7,61,65,60,000.00
19	Rate to be considered for Evaluation considering Transmission Charges (Rs/MW/Year) =(18/1)	₹ 76,16,560.00
20	Discharge received at Maharashtra periphery considering TL of 3.5% (MW)	965
21	Power loss due to transmission loss in discharge mode considering 8 Hrs Discharge (MWh/Year)	91980
22	Burden-Power loss due to transmission loss at discharging cycles (Rs) =(11*21)	₹ 50,58,90,000.00
23	Total Burden considering Transmission losses (Rs/Year) =(12+22)	₹ 1,29,63,43,125.00
24	Burden to beConsidered for evaluation (Rs/MW/Year) =(23/1)	**₹ 12,96,343.13**
25	Final Rate to be considered for Evaluation (Rs/MW/Year) =19+24	₹ 89,12,903.13

Calculation of Actual AFC payable to Interstate Bidder after ERA	
IPO Rate to be displayed to bidder (Rs/MW/Year) (A)	₹ 89,12,903.13
Final Rate Quoted by Bidder in ERA (RS/MW/Year) (B)	**₹ 85,00,000.00**
Total Storage Cost ©=B*1	₹ 8,50,00,00,000.00
Total Annual Storage Cost Excluding Transmission Charges and Transmission loss component and Cycle loss component Rs D= C-14-17-23	₹ 4,58,70,96,875.00
Final Payable AFC to Bidder (RS/MW/Year) E=D/1	**₹ 45,87,096.88**