

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 26 of 2023

Petition seeking approval for adoption of tariff discovered for long term procurement of 8.7 MW solar power under ‘Pradhan Mantri Kisan Urja Suraksha Evem Uthhan Mahabhiyan’ (PM-KUSUM).

M/s Maharashtra State Electricity Distribution Company Ltd. (MSEDCL)... Petitioner

1	Mr. Appasaheb Pawar.	}	
2	Mr. Balasaheb Jamdar.		
3	Mr. Balasaheb Ghumbre.		
4	Mr. Jayshree More.		
5	Ms. Megha Rajput.		
6	Mr. Sachin Kagde.		
7	Ms. Tara Dandgaval.		
			... Respondents

Coram

Sanjay Kumar, Chairperson
I.M. Bohari, Member
Mukesh Khullar, Member

Appearance:

For the Petitioner	:	Smt. Kavita Gharat, CE (RE)
For the Respondent	:	Ms. Balasaheb Jamdar (Rep.) Ms. Jayshree More (Rep.) Ms. Tara Dandgaval (Rep.)

ORDER

Date: 17 March 2023

1. Maharashtra State Electricity Distribution Company Ltd. (MSEDCL) has filed the present Petition on 31 January 2023 seeking approval for adoption of tariff for long term power

procurement from 8.7 MW solar projects selected through competitive bidding process under Section 63 of the Electricity Act 2003 under component A of ‘Pradhan Mantri Kisan Urja Suraksha Evem Uthhan Mahabhiyan’ (PM-KUSUM). MSEDCL has stated that under this scheme the project capacity is ranging from 0.5 to 2 MW and is connected to distribution network.

2. MSEDCL’s main prayers are as follows:

“

- a) *To admit the Petition as per the provisions under Section 63 of the Electricity Act (EA), 2003.*
- b) *To accord approval for adoption of tariff as mentioned in table under para 4.3 and signing of PPA with successful bidder for 8.7MW solar power capacity.*
- c) *To allow MSEDCL to consider this power for meeting its Solar RPO requirement.*
- d) *To consider the submission made by the Petitioner and consider the same positively while deciding the Petition as well as for further actions;*

...”

3. MSEDCL in its Case has stated as follows:

3.1 The Government of India on 08 February 2019 launched PM KUSUM Scheme and issued guidelines on 22 July 2019 for implementation of decentralized solar projects with capacity 0.5 to 2 MW under Component-A. Along with guidelines dated 22 July 2019, MNRE has provided standard PPA document.

3.2 MNRE on 13 January 2021 had sanctioned 500 MW capacity to MSEDCL under Component-A.

3.3 Details of the previous Tenders and responses under PM-KUSUM-A scheme are depicted in table below:

Sr No	Name of Scheme	Tender floated (MW)	Bid Capacity received (MW)	Capacity finalized (MW)	Remarks
1	PM KUSUM-A	500	12.5	12.5	Tariff adopted by the Commission and LOAs are issued.
2		487	46.75	31.75	
3		444	13	10.5	
4		445	15	14	
5		431	139.25	132.75	
			226.5	201.5	

3.4 MSEDCL observed that the tender under PM-KUSUM Scheme is getting very low response, therefore the matter was discussed with some of the prospective bidders. The prospective bidders informed following difficulties:

- i. Getting low interest loans from banks.
- ii. Recently there is increase in costing of solar modules due to increase in GST, BCD and dollar exchange rates.
- iii. Ceiling Tariff rate decided by MSEDCL for competitive bidding is unviable for small capacity projects.

In order to address above difficulties, MSEDCL decided to re-float the tender of 298 MW under decentralized solar project scheme but without any ceiling tariff.

3.5 On 03 August 2022, MSEDCL floated the tender. Last date of bid submission was 13 September 2022.

3.6 Total 10 bids were received with a total cumulative capacity of 11.2 MW. Technical bids were opened on 15 September 2022. During technical scrutiny of bid of Shri.Mukund Ralegankar was disqualified due non submission of EMD as per criteria.

3.7 Financial bids for 09 qualified bidders (10.7MW) were opened on 29 September 2022. The details are as below:

Sr.No.	Name of Bidder	Capacity MW	Price Bid
1	Mr. Appasaheb Pawar	1	3.60
2	Mr. BalasahebJamdar	1	3.50
3	Ms.Jayshree More	1	4.00
4	Ms. Tara Dandgaval	0.7	3.90
5	Ms.Sangeeta Malik	1	4.12
6	Mr. Balasaheb Ghumbre	2	3.29
7	Ms. Megha Rajput	2	3.29
8	Mr. Sachin Kagde	1	3.29
9	Mr. Vijaysingh Rajput	1	3.29
		10.7	

3.8 Two bidders Ms. Megha Rajput and Mr. Vijaysingh Rajput submitted their bids on the same 33/11 kV Hatale S/Stn. The cumulative bid capacity was 3 MW exceeding the spare available capacity at S/Stn i.e 2 MW. To address above issue, RfS Clause No.4.2.B (iii) reads as below:

“

Total aggregate capacity of the Solar Power Projects short-listed for any sub-station is higher than the sub-station's available capacity, MSEDCL shall conduct e-

reverse auction for the specific sub-station”

3.9 Accordingly, MSEDCL conducted reverse auction on 3 October 2022. The results of reverse auction is as below:

Sr.No.	Name of Bidder	Bid Capacity (MW)	Rate derived (Rs. per Unit)
1	Ms. Megha Rajput	2	3.28
2	Mr. Vijaysingh Rajput	1	3.29

3.10 Quoted rates by some of the bidders are much higher as compared to recently discovered market rates. Hence, bidders were called on 06 October 2022 to negotiate their quoted rate. The revised rates offered by the bidders are as below:

Sr. No.	Name of Bidder	Capacity per location MW	Quoted rates (Rs/kWh)	Revised Tariff after Negotiation
1	Mr. Appasaheb Pawar	1	3.60	3.29
2	Mr. Balasaheb Jamdar	1	3.50	3.29
3	Ms. Jayshree More	1	4.00	3.35
4	Ms. Tara Dandgaval	0.7	3.90	3.35
5	Ms. Sangeeta Malik	1	4.12	3.97
6	Mr. Balasaheb Ghumbre	2	3.29	3.29
7	Ms. Megha Rajput	2	3.29	3.28
8	Mr. Sachin Kagde	1	3.29	3.29
		9.7		

3.11 Tariff reasonability calculations as per current market conditions for decentralized solar projects is worked out as below:

Particular	Rates (Rs/kWh)	Remarks
Tariff at STU Periphery from Solar Project	2.90	Tariff discovered in recent 500 MW Inter/Intra Solar Tender
InSTS Loss (3.18%)	0.09	As per MERC Order 327 of 2019
33 kV Wheeling Loss (7.5%)	0.22	As per MERC Order 322 of 2019
Resultant Tariff	3.21	

3.12 The solar project under PM KUSUM component A is of 0.5 to 2 MW capacity, therefore it is essential to consider economies of scale of decentralized solar projects as compared to large scale projects as additional capital cost incurs.

- 3.13 On enquiry with the solar project developers (who carry out both type of projects i.e small capacity decentralized solar project & large capacity grid connected solar projects) it has been learned that additional capital cost of around Rs 50 Lakh/MW is needed for decentralized project. Therefore, there will be an additional impact to the tune of Rs.0.25 per unit on above mentioned resultant tariff.
- 3.14 The Commission vide its Order in Case No.80 of 2020 dated 16 May 2020 approved ceiling tariff for decentralized project as 3.30 P.U. Hence, MSEDCL accepted offers up to Rs 3.30 P.U. Accordingly, the revised accepted offer are as follows:

Sr. No.	Name of Bidder	Capacity per location MW	Revised Tariff after Negotiation Rs.P.U
1	Mr. Appasaheb Pawar	1	3.29
2	Mr. Balasaheb Jamdar	1	3.29
3	Ms. Jayshree More	1	3.30
4	Ms. Tara Dandgaval	0.7	3.30
5	Mr. Balasaheb Ghumbre	2	3.29
6	Ms. Megha Rajput	2	3.28
7	Mr. Sachin Kagde	1	3.29
		8.7	

- 3.15 MSEDCL submitted the present Petition for adoption of above-mentioned Tariff for 8.7 MW solar power discovered through competitive bidding process under Section 63 of the Electricity Act, 2003.
4. At the e-hearing through video conferencing held on 14 February 2023, MSEDCL reiterated its submissions made in the Petition. The representatives of the Respondent supported the Petition.

Commission's Analysis and Rulings

5. MSEDCL has filed this Petition for adoption of tariff discovered for 8.7 MW Solar project under PM-KUSUM Component-A scheme selected through competitive bidding process under Section 63 of the Electricity Act, 2003.
6. The Commission notes that under component A of PM KUSUM, Solar PV project of 0.5 to 2 MW capacity is to be setup by farmers/ group of farmers/ cooperatives/ panchayats/ Farmer Producer Organizations & Water User associations. Option of independent developer setting up such a project by taking land from the farmers on lease agreement is also available under this scheme. MNRE has sanctioned 500 MW capacity under KUSUM-A scheme for MSEDCL. Under this scheme, MSEDCL is eligible for procurement-based incentive of Rs. 0.40 per unit or Rs. 6.6 lakh per MW of installed capacity, whichever is less, for a period of

5 years from CoD of the project.

7. Accordingly, MSEDCL floated a tender for procurement of 500 MW Solar power under PM-KUSUM Component-A wherein 0.5 to 2 MW of solar projects are to be setup and connected to 11 or 22 kV level in MSEDCL's substation. On previous occasions, MSEDCL fixed ceiling rate for this bidding process and used model PPA provided by MNRE for bidding purpose without any deviation.
8. As MSEDCL has received less response against bid capacity, it re-floated the tenders for remaining capacity. Details of Bids floated, discovered tariff and its adoption Order by the Commission till date are tabulated below:

Sr No.	Tender floated (MW)	Bid Capacity received (MW)	Capacity finalized (MW)	Tariff Discovered (Rs per Unit)	Tariff adoption Order
1	500	12.5	12.5	3.05-3.10	16 February 2022 in Case No. 9 of 2022
2	487	46.75	31.75	2.93-3.10	25 April 2022 in Case No. 23 of 2022
3	444	13	10.5	3.10	4 May 2022 in Case No. 51 of 2022
4	445	15	14	3.05-3.10	21 July 2022 in Case No. 114 of 2022
5	500	139.25	132.75	3.10	11 November 2022 in Case No. 182 of 2022
		226.5	201.5		

9. For increasing participation, MSEDCL refloated the tender for further balance capacity of 298 MW out of 500 MW on 03 August 2022 for long term procurement of solar power without any ceiling tariff through competitive bidding.
10. With regards to ceiling tariff and increasing participation in tenders under 'Mukhyamantri Saur Krishi Vaahini Yojana'(which is also decentralized Solar project), the Commission in its Order dated 19 December 2019 in Case No. 323 of 2019 has noted following:

“
*10. Having ruled as above, the Commission notes that even after repeated extension of bid deadline, there has been very poor response to the bidding process. As against 1350 MW, bid has been received only for 5 MW and that too by a single bidder that participated in the tender. Therefore, in the opinion of the Commission, there is a need for MSEDCL to review their bidding conditions on holistic basis, considering the overall market scenario in the country so as to attract more bidders. **Ceiling rate may be one of bottlenecks causing poor response.**”*

In view of above, for testing of market it is appropriate on part of MSEDCL to float tender without any ceiling.

11. After competitive bidding process and subsequent negotiations, MSEDCL has received following tariff:

Sr.No.	Name of Bidder	Capacity MW	Tariff offered (Rs/kWh)	Revised Tariff after Negotiation (Rs/kWh)
1	Mr. Appasaheb Pawar	1	3.60	3.29
2	Mr. BalasahebJamdar	1	3.50	3.29
3	Ms. Jayshree More	1	4.00	3.35
4	Ms. Tara Dandgaval	0.7	3.90	3.35
5	Ms. Sangeeta Malik	1	4.12	3.97
6	Mr. Balasaheb	2	3.29	3.29
7	Ms. Megha Rajput	2	3.29	3.28
8	Mr. Sachin Kagde	1	3.29	3.29
		9.7		

Clearly, in spite of no ceiling tariff MSEDCL has received lukewarm response to present tender.

12. The Commission notes that post bidding process, MSEDCL has considered offers within limiting tariff of Rs.3.30 P.U. for procurement. Tariff of Rs.3.30 P.U has been adopted from the Commission's Order in Case No.80 of 2020 dated 16 May 2020. The offers considered by MSEDCL are depicted in table below:

Sr. No.	Name of Bidder	Capacity per location MW	Revised Tariff after Negotiation Rs.P.U.
1	Mr. Appasaheb Pawar	1	3.29
2	Mr. Balasaheb Jamdar	1	3.29
3	Ms. Jayshree More	1	3.30
4	Ms. Tara Dandgaval	0.7	3.30
5	Mr. Balasaheb Ghumbre	2	3.29
6	Ms. Megha Rajput	2	3.28
7	Mr. Sachin Kagde	1	3.29
		8.7	

13. It is pertinent to note that the limiting tariff Rs.3.30 P.U has been a ceiling tariff for 'Mukhyamantri Saur Krishi Vaahini Yojana' projects in Case No.80 of 2020. In past tendering process, MSEDCL discovered the tariff in the range of Rs.2.93-3.10 P.U for projects under PM-KUSUM.

14. The Commission notes that the MSEDCL in its recent two tenders for grid scale solar power procurement, discovered tariff in the range of Rs.2.90-2.97 PU. Resultant tariff after considering impact of InSTS loss and 33 kV network loss works out as below:

Particulars	Tariff Discovered (Rs/Unit)	Impact of InSTS Loss (3.18%)	Impact of 33 kV network Loss (7.50%)	Resultant Tariff (Rs/Unit)
MSEDCL <u>Maharashtra</u> Solar Tranche-VII, 500 MW August-2022	Rs. 2.90-2.91	9.22 Paise/Unit	21.06 Paise/Unit	3.20-3.21
MSEDCL <u>Maharashtra</u> Solar Tranche-IX, 500 MW December-2022	Rs. 2.90-2.97			3.20-3.27

From above it is evident that the tariff considered for adoption is marginally higher than the resultant tariff of InSTS grid connected solar projects. But, under PM-KUSUM Component-A scheme, MSEDCL will get procurement-based incentive (Rs. 0.40 per unit or Rs. 6.6 lakh per MW of installed capacity, whichever is less) from MNRE for first 5 years from CoD of the project. Considering all factors, the current procurement appears to be prudent and market reflective.

15. Accordingly, in line with the mandate under Section 63 of the Electricity Act 2003, the Commission deems it fit to adopt and approve tariff as highlighted in above para 12 for 8.7 MW Cumulative Solar projects on long term basis (for the period of 25 years) under PM-KUSUM Component-A scheme.
16. Having ruled as above, the Commission notes that as against bid capacity of 298 MW, only 8.7 MW bids have been received. Still more quantum is required not only for fulfilling target of 500 MW set by MNRE but also for reducing the power purchase cost. MSEDCL, needs to take extra efforts to give adequate publicity to the scheme/bidding process so that more and more bids are received. MSEDCL should focus on area where barren/degenerated land is available coupled with good availability of solar radiation throughout the year. This will not only help MSEDCL to increase the availability of land for implementing such solar projects but would also provide assured rental income to farmers.
17. Hence, the following Order.

ORDER

- 1. Case No. 26 of 2023 is allowed.**

2. **The Commission accords its approval for procurement of 8.7 MW on long term basis from solar generator as stated in Para 12. Parties shall sign the PPA based on documents published during bidding process.**
3. **The Solar Power procured from these projects shall be eligible towards fulfilment of Maharashtra State Electricity Distribution Co. Ltd.'s Solar RPO for the respective periods.**

Sd/-
(Mukesh Khullar)
Member

Sd/-
(I.M. Bohari)
Member

Sd/-
(Sanjay Kumar)
Chairperson


(Abhijit Deshpande)
Secretary


MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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