

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case Nos. 198 of 2019

Case of Maharashtra State Electricity Distribution Co. Ltd. seeking approval for procurement of additional 300 MW Solar Power from M/S EESL on long term basis.

Coram

Anand B. Kulkarni, Chairperson
I.M. Bohari, Member

Maharashtra State Electricity Distribution Co. Ltd.	: Petitioner
Energy Efficiency Services Ltd.	: Impleaded Respondent 1
Maharashtra Energy Development Agency	: Impleaded Respondent 2

Appearance

For the:	
Petitioner	: Smt. Kavita Gharat (Rep)
Impleaded Respondent 1	: None
Impleaded Respondent 2	: Sh. Manoj Pise (Rep)

ORDER

Date: 3 September, 2019

1. Maharashtra State Electricity Distribution Co. Ltd. (**MSEDCL**) has filed this Case dated 7 August, 2019 seeking approval for procurement of 'additional' 300 MW Solar Power from M/S EESL on long term basis from ground mounted Solar Power projects proposed to be set up in the premises of existing MSEDCL/MSETCL substations/Govt. & Gram panchayat lands for fulfillment of its Solar RPO Targets.

2. **MSEDCL's main prayers are as follows:**

- a) *To approve procurement of the additional 300 MW solar power from the solar power projects to be developed by EESL, on the spare land available in the existing MSEDCL's/ MSETCL's/ Govt. /Grampanchayat lands on Long term basis for 25 year*

at a rate of Rs.3.00 per unit, with minimum projected capacity of 0.3 MW to maximum project capacity of 10 MW from M/s EESL for fulfillment of RPO of MSEDCL and to give day time supply to farmers under 'Mukhyamantri Saur Krushi Vahini Yojna'.

- b) To allow MSEDCL to consider this solar power for meeting the Solar RPO requirements.

3. MSEDCL in its Case has stated as follows:

- 3.1. Previously, it had filed a Petition on 27 November, 2017 before the Commission seeking approval for procurement of around 200 MW Solar Power from individual Projects of the capacity ranging between 0.5 MW to 1 MW, on long term basis from rooftop/ground mounted Solar Power projects proposed to be set up in the premises of its existing substations. MSEDCL has also sought approval for consideration of this Solar Power for fulfillment of its Solar RPO targets.
- 3.2. The Commission vide its Order dated 9 January, 2018 in Case No. 164 of 2017 has approved MSEDCL's proposal of long term procurement of 200 MW Solar Power, to be developed by EESL, for 25 years under MOU route at a rate of Rs 3.00/unit.
- 3.3. Accordingly, Power Purchase Agreement (PPA) was executed between MSEDCL & M/s EESL dated 20 January, 2018 for establishing Solar projects with cumulative capacity of 200 MW on spare lands available at MSEDCL substations under the "Mukhyamantri Saur Krishi Vahini Yojana".
- 3.4. As per Regulation 7.1 of the MERC (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate Framework) Regulations, 2016 the revised RPO targets are as below:

Year	Quantum of purchase (in%) from RE sources (in terms of energy equivalent in kWh)		
	Solar	Non-Solar (other RE)	Total
2017-18	2.00%	10.50%	12.50%
2018-19	2.75%	11.00%	13.75%
2019-20	3.50%	11.50%	15.00%

- 3.5. MSEDCL's Solar RPO Status is as below:

Period	Shortfall in MUs
FY 2016-17	671
FY 2017-18	1476
FY 2018-19 (Provisional)	1512
Total	3659

- 3.6. MSEDCL is trying to fulfill the above said shortfall in Solar RPO target by way of purchase of Solar RECs and energy. Considering the existing shortfall and future RPO targets, MSEDCL needs to procure additional RE power for fulfillment of RPO targets.
- 3.7. Further, MSEDCL is facing difficulties in purchasing RECs due to non-availability of sufficient quantities of RECs and increased rates of RECs in the market. In such a scenario with increasing targets of RPOs on year to year basis, it is necessary that MSEDCL should contract sufficient Renewable power through the long term contracts.
- 3.8. The Government of Maharashtra vide its G.R. dated 14 June, 2017 and 17 March, 2018 declared 'Mukhyamantri Saur Krishi Vahini Yojana' with the objective of supplying day power to the agriculture consumer and MSEDCL is appointed as implementing agency for this scheme.
- 3.9. MSEDCL has already floated tenders of around 3800 MW capacity for procurement of Solar Power under this scheme. However, only for 235 MW capacity PPA is executed and for 1350 MW capacity where tariff discovered was in the range of Rs. 3.16/unit to Rs. 3.30/unit, the Commission has directed to renegotiate the tariff. But except 1 bidder all other successful bidders have denied re-negotiation of tariff. Out of this 1350 MW, 180 MW bidder has already opted to exit from bidding process.
- 3.10. Therefore, MSEDCL intends to develop small Solar Power plants on vacant lands of MSEDCL/MSETCL/Govt./Grampanchayat lands on same terms and conditions as per earlier PPA executed with EESL. EESL has given consent for establishment of additional capacity of 300 MW at the rate of Rs. 3.00/unit on vacant lands of MSEDCL/MSETCL/Grampanchayat/Govt. lands. The evacuation & land development will be done by MSEDCL.
- 3.11. Tariffs discovered in recent tenders floated on 5 October, 2018 by MSEDCL for procurement of Solar Power of 1000 MW were in the range of Rs. 2.74 to Rs. 2.75/unit at STU periphery from solar PV projects connected at inter/intrastate transmission network. MSEDCL has converted this STU periphery tariff at 11kV distribution level adding the Maharashtra intra-state transmission charges and 33 KV level distribution/wheeling charges and losses.
- 3.12. The detailed calculation for determination of solar tariff at 11 kV distribution voltage level from inter/intra-state projects with delivery point at Maharashtra State periphery is as shown below:

Particular	Rate (Rs/kWh)	Remarks
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Tariff at STU Periphery from Solar Power Project	2.74	Tariff as determined in MSEDCL 1000 MW Tender dated April 2018 and as adopted by MERC
InSTS Loss (3.30%)	0.09	Page 15 & 20 of MERC Order in Case No. 265 of 2018 - Revision of Intra-State Transmission Tariff determined in Order dated 22 July, 2016 in Case No. 91 of 2016 in pursuance of Mid-term Review process
InSTS Charges	0.29	
33kV Wheeling Loss (6%)	0.19	Page 467 of MERC Order in Case No. 195 of 2017 - MTR Petition of MSEDCL for Truing-up of Aggregate Revenue Requirement (ARR) of FY16 and FY17, Provisional Truing-up of ARR of FY18 and Revised Projections of ARR for FY19 and FY20
33kV Wheeling Charge	0.15	
Resultant Tariff	3.46	

3.13. Thus, the tariff rate of Rs. 3.00/unit executed with EESL is competitive as compared to rates discovered in competitive bidding of solar projects under ‘Mukhyamantri Saur Krishi Vahini Yojana’. Also, the expenditure on power evacuation arrangement will be reimbursed by MEDA through Green Cess Fund.

3.14. The Solar Plants proposed to be set up in the premises of existing substations of MSEDCL’s /MSETCL /Govt. & Grampanchayat lands is ranging from 0.3 MW to 10 MW as per availability of spare land in above premises.

3.15. MSEDCL requested the Commission to allow procurement of additional 300 MW Solar Power at the rate of Rs. 3.00/unit by executing PPA with M/s EESL on long term basis from minimum project capacity of 0.3 MW to maximum project capacity of 10 MW ground mounted Solar Power projects proposed to be set up in the premises of existing MSEDCL/MSETCL substations/spare Govt. & Grampanchayat lands within 5 Km range of sub-stations for fulfillment of MSEDCL’s Solar RPO Target and extend day time supply on AG feeders.

4. At the hearing held on 23 August, 2019 the representative of MSEDCL reiterated its submission. The representative of MEDA supported MSEDCL’s proposal.

Commission’s Analysis and Rulings:

5. The Commission notes that MSEDCL had earlier filed a Petition on 27 November, 2017 seeking approval for procurement of 200MW Solar Power from EESL through MoU for 25 years at rate of Rs 3.00/unit. The individual capacity for such projects was ranging between 0.5 MW to 1 MW and these projects were to be developed at open spaces available at various substations of MSEDCL. The Commission by its Order dated 9 January, 2018 in Case No. 164 of 2017 approved MSEDCL’s proposal. The relevant excerpt from the Order is reproduced below:

“18. In view of foregoing, and also the nature and purpose of the process undertaken by MSEDCL and the consumer interest, the Commission approves MSEDCL’s present

proposal of Long Term procurement of 200 MW Solar Power, to be developed by EESL, for 25 years under MoU route PPA at a rate of Rs 3.00 per unit.

19. The procurement of power by MSEDCL from the proposed 200 MW Solar Power projects to be developed by EESL would count towards the fulfilment of its Solar RPO for the respective periods. MSEDCL's prayers are addressed accordingly."

6. In the instant Case, MSEDCL proposed to procure additional 300MW of Solar Power from EESL at the rate of Rs. 3.00/unit. EESL has consented for establishment of additional capacity of 300 MW on the vacant lands of MSETCL/Grampanchayat/Govt. lands on same terms and conditions as per earlier PPA executed between MSEDCL and EESL. The evacuation & land development will be done by MSEDCL. The expenditure on power evacuation arrangement will be reimbursed by MEDA through Green Cess fund. During the hearing, the representative of MEDA has supported the Petition of MSEDCL.
7. The Commission notes that the rate of Rs. 3.00/unit proposed by MSEDCL for procurement of Solar Power from EESL through MoU route in the instant Petition is the same as was approved by the Commission by its Order dated 9 January, 2018 in Case No. 164 of 2017.
8. To further justify the proposed rate of Rs. 3.00/unit, MSEDCL has compared it with recently discovered rate of Rs. 2.74/unit (at STU Periphery) by converting it to Rs. 3.46/unit at 11kV level by adding various losses and charges to the Tariff discovered at STU periphery. Although, such rationale of computation of rate from Rs. 2.74/unit to Rs. 3.46/unit at 11KV level has not been accepted by the Commission in its recent Order dated 9 August, 2019, wherein it has observed that correct conversion would come to around Rs. 3.02/unit. Relevant portion of that Order is reproduced below:

"13. In order to demonstrate the reasonability of rate of Rs. 3.30 per unit, as shown in table in para 3.4 above, MSEDCL has computed landed cost at 11 kV voltage level for the tariff of Rs. 2.74 to 2.75 per unit (injection at STU level) adopted by the Commission in its Order dated 27 May, 2019 in Case No 87 of 2019. While doing so, in addition to factoring transmission and 33 kV losses, MSEDCL has also added transmission charges and 33 kV wheeling charges in that computation and has calculated resultant tariff of Rs. 3.46 per unit. In this regard, the Commission notes that transmission charges for Distribution Licensee determined by the Commission is based on consumer demand met last year. Hence, it is independent of generation source from which such demand is being met. Further, it is a fixed amount (Rs. Crore) per month which Distribution Licensee has to pay irrespective of actual usage. Hence, adding transmission charges as calculated by MSEDCL for taking power from STU periphery to 11 kV level is not appropriate. Further, adding of 33 kV Wheeling Charges is also not correct as Wheeling Charges is payable by consumer / OA consumer / OA Generator for third party sale, when Distribution Licensee uses its own network for wheeling power to its own consumer, it

does not pay such wheeling charges. If we deduct such transmission charges and Wheeling Charges from table shown in para 3.4 above, then resultant rate will become Rs. 3.02 which is much lower than Rs. 3.30 proposed by MSEDCL.”

In the instant Case the proposed rate of Rs. 3.00/unit is comparable/lower than the recent discovered rate of Rs. 3.02/unit (Rs. 2.74/unit converted to Rs. 3.02/unit at 11 kV level).


9. The Commission also notes that rate of Rs. 3.00/unit excludes the evacuation and land development costs as it will be done by MSEDCL. As per MSEDCL’s earlier Petition in Case No. 164 of 2017, impact of evacuation cost on tariff rate for 200 MW Solar project would be around Rs. 0.078 per unit. Further, MSEDCL and Maharashtra State Power Generation Company Limited (**MSPGCL**) in its joint Petition in Case No. 76 of 2019, have submitted Rs 0.0120 and Rs. 0.0289/unit as an impact of Land and Land Infrastructure Development work. Considering these impacts also, proposed rate of Rs. 3.00/unit is lower than the recently adopted rate of MSEDCL for around Rs. 3.15/unit at 11KV level under Mukhyamantri Saur Krishi Vahini Yojana.
10. Considering the above finding, the Commission is inclined to approve procurement of ‘additional’ 300 MW Solar power from M/S EESL on long term basis at the proposed rate of Rs. 3.00/unit.
11. Hence the following Order:

ORDER

- 1) **The Case No. 198 of 2019 is allowed.**
- 2) **The Commission accords approval for procurement of additional 300 MW Solar Power from EESL on the spare land available in the existing Maharashtra State Electricity Distribution Co. Ltd/ Maharashtra State Electricity Transmission Co. Ltd./ Government or Grampanchayat lands on Long term basis for 25 year at a rate of Rs. 3.00/Unit, with minimum project capacity of 0.3 MW to maximum project capacity of 10 MW.**
- 3) **The Solar Power procured from these projects shall be counted towards fulfilment of its Solar RPO for the respective periods.**

Sd/-
(I.M. Bohari)
Member

Sd/-
(Anand B. Kulkarni)
Chairperson


(Abhijit Deshpande)
Secretary

