

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 41 of 2023

Petition for seeking approval for adoption of Tariff for long term procurement of 500 MW power from intra-state grid connected solar power projects under Section 63 of the Electricity Act 2003.

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

1 M/s. Taletuttayi Solar Projects Eight Pvt. Ltd.
2 M/s. SJVN Green Energy Ltd.
3 M/s. Tata Power Renewable Energy Ltd. } ... Respondents

Coram

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

Appearance:

For the Petitioner : Smt. Kavita Gharat, CE (RE)
For the Respondent : Shri. Suhas Joshi (Rep.)

ORDER

Date: 11 May 2023

1. Maharashtra State Electricity Distribution Company Ltd. (MSEDCL) has filed the present Petition on 25 March 2023 seeking approval for adoption of tariff for long term power procurement of 500 MW power from intra-state grid connected solar power projects under Section 63 of the Electricity Act 2003.

2. **MSEDCL's major 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 for 500 MW solar power as stated in Para 3.18 discovered through Competitive bidding and the same to be made eligible for meeting the Solar RPO requirement of MSEDCL.*
- c) *To accord approval for draft PPA and signing of PPA with successful bidders at discovered tariff.*

...”

3. **MSEDCL in its Case has stated as follows:**

- 3.1 The Ministry of Power (MoP), vide its Notification dated 03 August 2017, has issued Guidelines under Section 63 of the Electricity Act, 2003 for Tariff-based Competitive Bidding for long-term procurement of 5 MW and above from grid-connected Solar PV Power Projects.
- 3.2 The Commission in its Order dated 06 December 2017 for Case No. 157 of 2017 ruled that MSEDCL shall come before the Commission through specific Petition prior to the bidding process, only if MSEDCL requires any deviation with respect to the bidding documents.
- 3.3 After Notification dated 03 August 2017, MoP issued amendments dated 14 June 2018, 03 January 2019, 09 July 2019, 22 October 2019 and 25 September 2020 to the Guidelines.
- 3.4 MSEDCL being an obligated entity will have to meet its assigned RPO targets by procuring Renewable Power or by purchasing Renewable Energy Certificates (REC). MSEDCL intends to infuse actual renewable power in the system, rather than relying on RECs to meet its RPO targets which is also in consumer interest in terms of competitiveness of power purchase cost.
- 3.5 MSETCL vide letter dated 23 May 2022 has informed that no margin is left in the Available Transmission Capability (ATC) for power transaction from outside Maharashtra and only small amount will be available by December 2024. Considering the same, MSEDCL floated tender for intra-state projects only.
- 3.6 MSEDCL has floated a tender on 30 September 2022 for procurement of 500 MW solar power from Intra State Grid connected solar projects (Phase-IX) through competitive bidding (E-reverse auction) on Bharat-ETS web portal in line with the MoP guidelines dated 03 August 2017 and its subsequent amendments till date. Further, this tender was

floated without any ceiling cap/rate in line with MNRE letter 05 March 2020. MSEDCL vide its letter dated 30 September 2022 intimated the same to the office of the Commission.

- 3.7 The Pre-bid meeting was conducted on 10 October 2022. The replies to pre-bid queries were uploaded on 28 October 2022. The last date of submission of bid was 9 November 2022.
- 3.8 Total (5) bids were received with a total capacity of 810 MW. The technical bids were opened on 9 November 2022. The discrepancies in documents were informed to the respective bidders, which were complied by 16 November 2022. Among all bidders, M/s. Sriramcharan Energy and Infra Pvt. Ltd is disqualified techno-commercially because of not meeting the net worth criteria as per RfS requirements.
- 3.9 Accordingly, (4) bidders were found eligible for e-reverse auction. E-reverse auction was carried out on 02 December 2022. After completion of e-reverse auction, the following bidders were declared as successful bidders:

Sr. No.	Name of Bidder	Bidding Capacity (MW)	Allocated Capacity (MW)	Price Discovered (Rs. /unit)	Period of Power Flow
1	M/s. Taletuttayi Solar Projects Eight Pvt. Ltd	100	100	2.90	25 Years
2	M/s. SJVN Green Energy Ltd	200	200	2.95	25 Years
3	M/s. Tata Power Renewable Energy Ltd	300	200*	2.97	25 Years
4	M/s. Spring Solar Energy Pvt. Ltd	160	0	2.98	25 Years
	Total	760	500		

* 200 MW is only available in the 500 MW bucket

- 3.10 MSEDCL is in shortfall for fulfillment of Solar RPO Target of around 5189 MU till FY 2021-22 and the Commission has set up Solar RPO Targets of 13.5 % for FY 2024-25 as against 3.5 % in FY 2019-20. Therefore, it is essential for MSEDCL to procure solar power.
- 3.11 Considering the discovery of higher rates (Rs. 2.90 to 2.97 per kWh) as compared to MSEDCL's latest discovered tariffs in the month of Aug-22 (i.e. Rs. 2.90 and 2.91 per kWh), the successful bidders with quoted tariff higher than Rs. 2.90 per unit were called for the discussion in December-2022. MSEDCL requested the parties to the match with the L1 (negotiated) discovered tariff. However, initially M/s. SJVN Ltd and M/s. Tata Power Renewable Energy Ltd did not respond.

MSEDCL again followed up with them in January-2023, for negotiation regarding matching with the L1 tariff. In response, both the successful bidders viz. Tata Power

Renewable Energy Ltd. and M/s. SJVN Ltd vide their respective letters dated 18 January 2023 and 23 January 2023 have offered revised tariff to Rs. 2.90 per kWh. The final rates discovered in the tender for 500 MW Intra-State Solar Power projects are Rs.2.90 per kWh.

3.12 Solar Energy Corporation of India (SECI) has offered solar power at discovered rate Rs.2.35 - 2.37 per unit excluding its trading margin. Considering all impacts such as Inter State Transmission losses, MSETCL/STU Periphery transmission charges & losses, SECI Trading Margine and Risk premium, the tariff will be ~ Rs 2.61-2.63 per unit and expected commission date will be October 2024.

3.13 MSETCL informed that vide letter dated 23 May 2022 no margin is left in Available Transmission Capability (ATC) for power flow from outside of Maharashtra. ATC will increase by 3622 MW by December 2024. Out of which, 3529 MW capacity is already booked (including the conditional NOC's). Thus, marginal 93 MW ATC margin will be available by December-2024. Hence, MSEDCL cannot buy power from Inter-state solar projects. In case if more capacity is informed by MSETCL then considering the competitive rate MSEDCL may give consent to SECI as well.

3.14 The discovered tariffs in other state specific tenders during the same period are as below:

Buying Utility	Project Location	Reverse auction date	Discovered tariff (Rs. per kWh)
GUVNL	Intra-state	31 March 2023	2.51-2.52

3.15 On comparing the MSEDCL's results with latest discovered tariff of GUVNL's 500 MW tender results, the MSEDCL's rate seems competitive. The comparison as under:

Particulars	Values	UoM	GUVNL- Jan-23 (2.51)	MSEDCL- Nov-22 (2.90)
Change in CUF due to variation in the solar radiation	28% to 26%	Paisa	18	-
Impact of higher land cost in Maharashtra	06 Lakh/Acre	Paisa	10	-
Impact of higher interest rate	8.20% to 9.50%	Paisa	08	-
Total Impact	-	Paisa	36	-
Base Tariff	-	Rs. /kWh	2.51	2.90
Tariff after considering all possible impacts	-	Rs. /kWh	2.87	2.90

- 3.16 There are some peculiar clauses in GUVNL tender related to Generation Compensation in Offtake Constraint and Change in law definition which could also be possible reasons for low tariff discovered in GUVNL bid.
- 3.17 The discovered tariff Rs.2.90-2.91 per kWh is lesser than Rs.4.05 per kWh i. e. Average Power purchase cost (APPC) approved by the Commission for FY 2022-23.
- 3.18 Considering the rates discovered for the projects under current market scenario, the final tariff rates discovered in MSEDCL's 500 MW Intra state solar tender at STU/Maharashtra periphery after the e-reverse auction i.e. Rs. 2.90 per kWh are competitive and found reasonable to MSEDCL.
- 3.19 MSEDCL requested the Commission to approve the final tariff discovered in the Competitive bidding process as below:

Sr. No.	Name of the Bidder	Quantum of Power offered (MW)	Price Discovered Rs/kWh	Capacity allocated in MW	Period of Power Flow
1	M/s. Taletuttayi Solar Projects Eight Pvt. Ltd.	100	2.90	100	25 Years
2	M/s. SJVN Green Energy Ltd	200	2.90	200	25 Years
3	M/s. Tata Power Renewable Energy Ltd.	300	2.91	200*	25 Years
	Total	600		500	

*200 MW is only available in the 500 MW bucket.

4. At the e-hearing through video conferencing held on 11 April 2023, MSEDCL reiterated its submissions made in the Petition. The Respondents supported the Petition.

Commission's Analysis and Rulings

5. The present Petition has been filed by MSEDCL for adoption of Tariff discovered through competitive bidding under Section 63 of the EA, 2003 for procurement of 500 MW Solar Power.
6. In the present tariff adoption Petition under Section 63 of the EA, 2003, the Commission has to decide on the following:
- Justification for procurement from Intra state project.
 - Whether Competitive bidding process is in accordance with the Guidelines notified

under Section 63 of the Electricity Act, 2003

- iii. Whether tariff discovered through competitive bidding is in accordance with market condition and guiding principle under Section 61 of the Electricity Act, 2003.

In subsequent paragraphs, the Commission has scrutinized above aspects with reference to the present Petition filed by MSEDCL for Tariff adoption.

7. **Justification for procurement of power from Intra state projects only.**

- 7.1. MSEDCL has highlighted that no margin is left in Available Transmission Capability (ATC) of transmission line connecting Maharashtra transmission system to national grid for bringing power from outside Maharashtra. Hence, MSEDCL floated tender for intra-state projects only.
- 7.2. The Commission notes that this issue of transmission constraint in bringing power from outside Maharashtra is being highlighted at various fora including State Advisory Committee setup by this Commission and judicial proceedings before this Commission. In one of the proceedings related to RE power procurement (Case No. 32 of 2022 dated 1 November 2022), issue relating to availability of ATC margin has been dealt by the Commission as follows:

“15.16 STU has also provided a list of 8 schemes which may increase the import capability of Maharashtra by approx. 3872 MW, and it is expected that these schemes would be completed by December 2024. Out of these eight schemes, the scheme for 400kV Vikhroli Substation is a scheme for strengthening of Mumbai Transmission System and as such this scheme on standalone basis may not help to increase the ATC at CTU-STU interconnection, however, its interconnection with the proposed CTU network would help to bring power from outside Maharashtra.

*15.17 The Commission notes that due to constraints in the transmission system, limitations are being faced in bringing cheaper power into Mumbai. **If the constraints persist in CTU/STU interconnections also, similar limitations would be faced in bringing the cheaper power from outside Maharashtra to the Distribution Licensees in Maharashtra such as AEML-D.***

15.18 The Commission notes that monitoring of implementation of Transmission schemes is important in order to ensure the availability of reliable power at competitive rate. The scheme for 400 kV Vikhroli Project is being monitored by the Monitoring Committee appointed by the Commission under suo Moto Order dated 28 May 2021 in Case No. 202 of 2020. Similar credible monitoring is necessary for rest of the schemes

mentioned by STU for enhancing ATC of Maharashtra. The Commission notes that under Regulation 7.1 (a) of the MERC (State Grid Code) Regulations, 2020, the Maharashtra Transmission Committee (MTC) is responsible for planning and monitoring timely execution of transmission projects in the Maharashtra State including Mumbai area. Accordingly, it is directed that the MTC, in close coordination with STU and CTU, shall ensure implementation of these schemes as per the planned targeted timeframes. These schemes should form part of agenda items of Grid Co-ordination Committee to ensure that there is a due monitoring for implementation of these schemes which would ensure availability of long term contracted power to Discoms of the Maharashtra.

15.19 STU is also directed to periodically review the validity of NOC/ LTA issued by it and it may take necessary steps, in consultation with the project developers and procurer, in case it is observed that the project against which the NOC/LTA has been issued, has not materialized.”

7.3. Thus, though the inter state transmission constraint could adversely impact the pricing of solar procurement, the issue of transmission constraints needs to be recognised. The Commission has also directed STU to take periodic review of ongoing projects and ensure that such projects/ schemes are implemented on priority.

7.4. Further, the same issue is dealt by the Commission in its Order dated 31 March 2023 in Case No.242 of 2022 (Petition of MSEDCL for adoption of tariff for 500 MW solar power procurement from Intra state projects). While justifying intra-state procurement the Commission ruled following:

“
8.4 However, as stated by MSEDCL, even after addition of such transmission capacity, it would only be sufficient for projects to whom STU has already issued conditional NoC. Hence, there is little capacity left for new projects. Under such circumstances, the Commission is inclined to accept MSEDCL’s action of calling bids for only intra-state projects as unavoidable action. The Commission is aware that the same is not desirable at all and it does not subscribe to the same in medium term and long term when MSEDCL will be tenderising bids for RE procurement. As can be seen from subsequent paragraph of this Order, such restriction of transmission corridors has led to increase in discovered tariff as Maharashtra has lower solar radiation and higher cost of land as compared to States like Gujarat and Rajasthan. MSEDCL is not responsible for the limitation of ATC. **Had MSEDCL gone ahead with interstate procurement ignoring these restrictions on the transmission capacities there would have been a possibility that the bid rates would have been lower but there would always be an uncertainty of MSEDCL requiring to compensate such bidder for loss of generation without getting any power supply. Therefore, in view of transmission**

constraints, the Commission accepts MSEDCL's decision to bid for only intra-state projects.

8.5 Having ruled as above, the Commission directs STU to submit within six months of this Order a plan to enhance transmission capacity of CTU-STU interconnections. STU shall coordinate with all Distribution Licensees in the State for their 10 year plan for power procurement and accordingly plan for strengthening of transmission system. The Secretariat of the Commission is directed to forward copy of this Order to STU."

The above dispensation is squarely applicable in this Case also and the Commission accepts MSEDCL's rationale for intra state procurement.

8. Whether Competitive bidding process is in accordance with the Guidelines notified under Section 63 of the EA, 2003:

- 8.1. The Commission notes that MSEDCL has prepared the tender documents based on Ministry of Power's Guidelines dated 3 August 2017 and its subsequent amendments for Tariff Based Competitive Bidding Process for procurement of power from Grid Connected Solar PV power Projects.
- 8.2. MSEDCL has floated the bid for procurement of 500 MW Solar RE Power on Bharat-ETS web portal on 30 September 2022. In response, (5) bids of cumulative capacity of 810 MW were received. Out of 5 bids were 4 bidders found technically qualified.
- 8.3. E-Reverse Auction process was conducted on 2 December 2022. Post e-RA process and subsequent negotiations, tariff of Rs. 2.90 P.U. was discovered and (3) Bidders became successful bidders.
- 8.4. The Commission notes that MSEDCL has conducted transparent process of bidding which is in accordance with the guidelines notified by the Government of India.

9. Whether tariff discovered through competitive bidding is in accordance with market condition and guiding principle under Section 61 of the EA, 2003.

- 9.1. MSEDCL has stated that tariff discovered under the present bidding process i.e. Rs. 2.90 per kWh for solar projects to be setup in Maharashtra is reflective of market and hence requested the Commission to adopt the same.
- 9.2. The Commission vide its Order dated 31 March 2023 in Case No.242 of 2022 has upheld such averments and adopted the discovered tariff of Rs.2.90-2.91 per kWh for 500 MW Solar Power procurement on long term basis from intra-state projects. The discovered tariff

in present case is in line with the earlier adopted tariff of Rs 2.90 per kWh.

- 9.3. Accordingly, as per the mandate given under Section 63 of the Electricity Act 2003, the Commission deems it fit to adopt and approve tariff Rs. 2.90 per kWh for 500 MW Solar power procurement on long term basis (for the period of 25 years) as mentioned in table in para 3.19 above.

Hence, the following Order.

ORDER

- 1. Case No. 41 of 2023 is allowed.**
- 2. The Commission accords its approval for procurement of 500 MW on long term basis from grid connected Solar power PV projects at a tariff stipulated in table in para 3.19 above and allows MSEDCL to enter into Power Purchase Agreement with the successful bidder for a period of Twenty-Five years.**
- 3. STU shall coordinate with all Distribution Licensees in the State for their 10-year plan for power procurement and shall submit a plan to enhance the transmission capacity so that the situation of calling only the intra state tenders is avoided.**
- 4. 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


(Dr. Rajendra Ambekar)
I/c Secretary

