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- 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 400 MW solar power as stated in Para 4.10 discovered through Competitive bidding and the same to be made eligible for meeting the other RPO requirement of MSEDCL.*
- c) *To accord approval for draft PPA and signing of PPA with successful bidder at discovered tariff.*
- 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 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, September 2020, 22 October 2021 and 28 July 2023 to the Guidelines.
- 3.4 MSEDCL, being an obligated entity has 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 a small amount will be available by December 2024. Considering the same, MSEDCL floated tender for intra-state RE projects.
- 3.6 Major events in the bidding process and subsequent development are presented as below:

Date	Event				
14.02.2023	MSEDCL has floated a tender for procurement of 500 MW solar power from Intra State Grid connected solar projects (Phase-X) with green shoe option of additional up to 500 MW for 25 years through competitive bidding (E-reverse auction) on Bharat-ETS web portal. Further, this tender does not contain any ceiling cap/rate.				
	The intimation for initiation of tendering process was submitted to the Commission.				
22.02.2023	The Pre-bid meeting was conducted.				
01.03.2023	Replies provided to pre-bid queries.				
27.03.2023	The last date of submission of bid.				
	The technical bids were opened. Total (7) no. of bidders have submitted online bids on Bharat-ETS portal totaling capacity of 1475 MW.				
05.04.2023	The discrepancies observed in documents submitted by bidders were informed to the respective bidders as per tender conditions and the same have been complied with by them. All the bids were found techno-commercially qualified.				
06.04.2023	The financial bids for these bidders were opened. M/s. Tata Power Renewable Energy Ltd have quoted the highest tariff. As per Tender clause 4 (B), the bidder with the highest tariff shall be disqualified. Hence, M/s. Tata Power Renewable Energy Ltd was disqualified.				
13.04.2023	Accordingly, (6) bidders out of the above (7) bidders were made eligible for e-reverse auction. The e-reverse auction was carried out on Bharat Portal. The following are successful bidders:				
	Sr. No	Name of Bidder	Bidding Capacity (MW)	Allocated Capacity (MW)	Price Discovered (Rs./unit)
	1	SAEL Ltd	100	100	2.87
	2	Avaada Energy Pvt. Ltd.*	500	400	2.88
		Total	600	500	
	* 400 MW is only available in the 500 MW bucket.				
26.04.2023	AEPL was called for discussion with regard to the matching with the L1/ negotiation of discovered tariff.				
12.05.2023	Accordingly, AEPL vide letter have conveyed acceptance on the matching L1 tariff i.e. Rs. 2.87 per unit.				
20.02.2024	AEPL further submitted its revised offer as Rs.2.79 per unit vide letter. However, there is no response from SAEL in this regard.				

3.7 The Commission notified MERC RPO Regulations, 2019 on 27 December 2019 and set ambitious RPO Targets for the obligated entities. Subsequently, vide notification dated 24 February 2024 revised the RPO targets. MSEDCL is in cumulative shortfall for fulfillment

of Solar RPO Target of around 8525 MUs till FY 2022-23. Therefore, it is essential for MSEDCL to procure solar power.

- 3.8 The commission vide its Order dated 11 March 2022 in Case No.15 of 2022 disallowed adoption of the discovered tariff of Rs.2.62 per unit and granted liberty/option to Successful Bidders to match tariff of Rs. 2.49 per unit which was found to be the landed cost at Maharashtra STU periphery for procurement of RE power from SECI. The Commission further adopted the revised tariff offered by M/s.TP Saurya Ltd i.e Rs.2.56/- per unit under said tender.

3.9 Comparison with recent discovered tariff/offer:

- 3.9.1 The tariff discovered in MSEDCL's previous tenders for utility scale projects are as below:

Buying Utility	Project Location	Reverse auction date	Discovered Tariff (Rs./Unit)
MSEDCL	Intra-state	04.08.2022	2.90-2.91
MSEDCL	Intra-State	02.12.2022	2.90

- 3.9.2 Further, the latest tariff discovered by other/ central agencies are as below:

Buying Utility	Tender capacity (MW)	Project Location	Reverse auction date	Discovered Tariff (Rs./Unit)
NTPC	500	Inter-State	Jan-24	2.60-2.65
GUVNL	600	Intra-State	Jan-24	2.54-2.55
SJVN	1500	Inter-State	Feb-24	2.52-2.54
GUVNL	1125	Intra-State	Mar-24	2.62-2.67
SECI	1500	Inter-State	Mar-24	2.57-2.58
NTPC	1500	Inter-State	Mar-24	2.59-2.60

- 3.9.3 On comparing the MSEDCL's results with the latest discovered tariff of SJVN's 1500 MW tender results, the MSEDCL's rate seems competitive. The comparison shown is as under:

Particulars	Values	UoM	SJVN-Feb'24 (2.52)
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

Particulars	Values	UoM	SJVN-Feb'24 (2.52)
Trading margin		Paisa	07
Total Impact	-	Paisa	43
Base Tariff	-	Rs./kWh	2.52-2.54
Tariff after considering all possible impacts	-	Rs./kWh	2.95-2.97

3.9.4 The offered tariff of Rs.2.79/kWh for 400 MW capacity is lower than Rs.4.81/kWh i.e. Average Power purchase cost (APPC) approved by the Commission for FY 2023-24.

3.9.5 Considering the rates discovered for the projects under current market scenario, the final tariff rates received for 400 MW capacity in MSEDCL's 500 MW Intra state solar tender at STU/Maharashtra periphery i.e. Rs. 2.79/kWh is competitive rates and are found reasonable to MSEDCL. Also, for fulfilment of RPO target MSEDCL must procure intra state power only due to non-availability of ATC for interstate power transactions.

3.10 MSEDCL has signed the PSA of 1475 MW with NHPC for procurement of solar power on long term basis at a tariff of Rs. 2.60/kWh., hence MSEDCL decided not to avail Green shoe option.

3.11 MSEDCL request to Commission to approve the final tariff discovered in the Competitive bidding process for 400 MW capacity as below:

Sr. No.	Name of the Bidder	Capacity allocated in MW	Price Discovered Rs/kWh	Period of Power Flow
1	AEPL	400	2.79	25 Years

4. First E-Hearing in this matter was held on 25 October 2024. The Advocate of MSEDCL narrated the sequence of events of tendering process and stated that tariff discovered through the transparent competitive bidding process is Rs. 2.79/kWh. Further, the proposed procurement of 400 MW Solar power is from Intra-State project and the tariff is market reflective. Based on submission made, the Commission directed MSEDCL to make submission on the following counts:

- In present matter, e-reverse auction was held in April-2023. MSEDCL shall provide detailed reasons for the delay in approaching the Commission for adoption of tariff.
- Provide details of post-bidding negotiations made with Developers, accompanying Minutes of Meeting (MoM) documents and details of the ceiling tariff
- Establish the need of proposed procurement in view of Resource Adequacy Plan of MSEDCL.

- d. Recently, MSEDCL has floated multiple tenders for RE procurement. Reasons for floating multiple tenders in parts and pieces rather than combining RE procurement into a single tender.

5. MSEDCL in its Additional submission on dated 13 December 2024:

5.1. MSEDCL justified the delay as follows:

Sr. No.	Date	Event
1.	12.05.2023	<i>vide</i> letter dated 12.05.2023, AEPL conveyed acceptance on the matching of L1 tariff i.e., Rs. 2.87 per unit towards supply of 400 MW. However, this rate was not reflective of the prevailing market rate. Hence, MSEDCL did not proceed for further process.
2.	20.02.2024	However, AEPL <i>vide</i> its letter dated 20.02.2024, <i>suo moto</i> approached MSEDCL and submitted its revised offer as Rs.2.79 per unit.
3.	10.05.2024	MSEDCL approached the Commission for approval of adoption of tariff, <i>qua</i> the present procurement as the latest discovered tariff of Rs.2.79 per kWh, is competitive for the intra-State projects.

5.2. MSEDCL has already submitted its Resource Adequacy Plan to the Commission on 15 October 2024 with respect to the optimized power procurement along with the RPO fulfilment. The said Resource Adequacy Plan is inclusive of the present 400 MW Capacity of AEPL, which is taken into account for Financial Years 2025-26. Further, the entire capacity mix along with the capacity sought to be procured under the present Petition are submitted as under:

Year	Thermal + Gas	Nuclear	Large Hydro	PSP-BSES Storage	Wind	Solar	Hybrid	FDRE	Bagasse + Biomass	Small Hydro	DRE	Total
FY 2025-26	22551	1191	2819	250	2855	16012	300	0	2911	317	2675	51881
FY 2026-27	22551	1191	2928	1000	2855	28377	1080	1468	3256	317	3234	68257
FY 2027-28	22551	1191	3241	1000	2855	29377	4344	1468	3601	317	4016	73961
FY 2028-29	22551	1191	3345	2750	2855	32377	4344	1468	3601	317	5111	79910
FY 2029-30	24379	1191	3345	4824	2855	32377	4344	1468	3601	317	6644	85345

5.3. MSETCL vide letter dated 23 May 2022 had informed MSEDCL that no margin was left in Available Transmission Capability (ATC) for power transaction and only small capacity of power will be available by December 2024. MSEDCL hence, decided to float tender for intra-state RE Projects in smaller parts and not through large single quantum.

- 5.4. The procurement of renewable energy through a single tender for large capacity results in the restriction of the number of bidders and, consequently, hampers competition. Additionally, the market conditions are subject to continuous changes, which in turn affect the tariff rates discovered during the tendering process.
- 5.5. To enhance competitiveness and to effectively assess the power requirements in a timely manner, as a prudent practice, MSEDCL had issued multiple tenders as per the evolving requirements rather than single procurement.
6. At the e-hearing held on 11 February 2025, the Advocates of MSEDCL and AEPL reiterated their submission.

Commission's Analysis and Rulings

7. 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 400 MW Solar Power. Considering the transmission constraints in bringing power into Maharashtra, MSEDCL has floated the tender for intra-state projects.
8. In the present tariff adoption Petition under Section 63 of the EA, 2003, the Commission has framed the following issues:
 - a) Whether Competitive bidding process is in accordance with the Guidelines notified under Section 63 of the Electricity Act, 2003.
 - b) Quantum of Solar power capacity procurement to be allowed.
 - c) Whether tariff discovered through competitive bidding is in accordance with market conditions.

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

9. **Issue A: Whether Competitive bidding process is in accordance with the Guidelines notified under Section 63 of the EA, 2003:**
 - 9.1. The Commission notes that MSEDCL has prepared 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.

- 9.2. MSEDCL has floated the bid for procurement of 400 MW Solar RE Power on Bharat-ETS web portal on 14 February 2023. In response, (7) bids of cumulative capacity of 1475 MW were received. All bidders found technically qualified.
- 9.3. The financial bids for these bidders were opened on 6 April 2023. M/s. Tata Power Renewable Energy Ltd have quoted the highest tariff. As per clause 4 (B) of Tender documents, TPREL was disqualified. Accordingly, (6) bidders out of (7) bidders were made eligible for e-reverse auction. The e-reverse auction was carried out on Bharat Portal among the qualified bidders for e-Reverse Auction & tariff discovered is Rs. 2.87/kWh to 2.88/kWh. Post e-RA process and subsequent negotiations, tariff is settled at Rs. 2.79/kWh.
- 9.4. The Commission notes that MSEDCL has conducted transparent process of bidding which is in accordance with the guidelines notified by the Government of India.

10. Issue B: Quantum of Solar power capacity procurement to be allowed:

- 10.1. The Commission notes that MSEDCL has filed the present Petitions with two-fold objectives i.e. to meet the electricity demand of consumers by accommodating RE sources in power basket and to comply with RPO targets.
- 10.2. As per MSEDCL's Resource Adequacy Study (ST-DRAP and MT-DRAP), MSEDCL has contracted following Solar capacities:

Resource	Commissioned capacity as of FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Solar	4331	2095	9605	4475*	-	-	-

* Consent Given

The Commission notes that the proposed procurement has been considered by MSEDCL while chalking out its resource adequacy plan and included in 4475 MW (consented capacity).

- 10.3. Apart from the above, the Commission notes that RPO (Amendment) Regulations, 2024 stipulates RPO trajectory till FY 2029-30. The notified trajectory is as below:

Year	Wind RPO	HPO	Distributed RPO	Other RPO	Total RPO
2024-25	0.67%	0.38%	1.50%	27.35%	29.91%
2025-26	1.45%	1.22%	2.10%	28.24%	33.01%
2026-27	1.97%	1.34%	2.70%	29.94%	35.95%
2027-28	2.45%	1.42%	3.30%	31.64%	38.81%
2028-29	2.95%	1.42%	3.90%	33.10%	41.36%

Year	Wind RPO	HPO	Distributed RPO	Other RPO	Total RPO
2029-30	3.48%	1.33%	4.50%	34.02%	43.33%

10.4. The quantum proposed to be procured by MSEDCL will supplement its effort to meet RPO targets and fulfil past RPO gaps. Considering these factors, the proposed quantum of 400 MW of solar power procurement seems to be justified.

11. Issue C: Whether tariff discovered through competitive bidding is in accordance with market conditions:

11.1. MSEDCL has stated that tariff discovered under the present bidding process i.e. Rs. 2.79/kWh for Intra State solar projects is reflective of current market trends.

11.2. For evaluating the market reflectiveness of tariff, it is important to compare the rate discovered during the same period. The Commission notes that e-reverse auction in present matter was held on April 2023 and final tariff in present matter is negotiated in February 2024. There is substantial delay in finalizing the tariff, hence the Commission is comparing the tariff discovered around February 2024. As summarized in para 3.9.2 above, during the period of January to March 2024, various agencies have discovered tariff in the range of Rs. 2.52 to 2.67/kWh at national level. If costs of all other factors are included to make it comparable to solar projects being setup in Maharashtra, then as submitted by MSEDCL, such tariff needs to increase by Rs.0.43/kWh. In that case, tariff proposed for adoption in present matter i.e. Rs. 2.70/kWh is lower than power from these national level projects.

11.3. The Commission also notes that before tariff finalized by parties in the present matter in February 2024, the Commission vide Order dated 11 May 2023 in Case No.41 of 2023 has adopted the discovered tariff of Rs.2.90-2.91/kWh for 500 MW Solar Power procurement on long term basis from intra-state projects. The tariff discovered in the present case is well below the earlier adopted tariff of Rs 2.90-2.91/kWh.

11.4. The project under consideration is being developed within Maharashtra. Hence, the impact of Inter State transmission charges and losses are not applicable.

11.5. Considering the above, it can be concluded that the Tariff proposed for adoption in the present petition is reflective of the current market trends.

11.6. 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. 2.79/kWh for 400 MW Solar power procurement on long term basis (for the period of 25 years).

12. Hence, the following Order.

ORDER

1. Case No. 88 of 2024 is allowed.
2. Procurement of 400 MW power from Solar PV projects at a tariff of Rs.2.79/kWh is allowed. Maharashtra State Electricity Distribution Co. Ltd. to enter into Power Purchase Agreement with the successful bidder for a period of (25) years.
3. The Solar Power procured from these projects shall be eligible towards fulfilment of Maharashtra State Electricity Distribution Co. Ltd.'s 'Other RPO' for the respective periods along with past backlog.

Sd/-
(Surendra J. Biyani)
Member

Sd/-
(Anand M. Limaye)
Member

Sd/-
(Sanjay Kumar)
Chairperson


(Dr. Rajendra G. Ambekar)
Secretary

