

**Before the**  
**MAHARASHTRA ELECTRICITY REGULATORY COMMISSION**  
**World Trade Centre, Centre No.1, 13<sup>th</sup> Floor, Cuffe Parade, Mumbai 400005.**  
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**Case No. 236 of 2024**

**Case of Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) seeking adoption of tariff for long term procurement of 1600 MW solar power from grid connected renewable energy power projects under developer mode selected by NTPC Ltd. u/s 63 of the Electricity Act 2003 for meeting its RPO targets.**

**Coram**

**Sanjay Kumar, Chairperson**  
**Anand M. Limaye, Member**  
**Surendra J. Biyani, Member**

Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) : Petitioner

V/s

NTPC Limited : Respondent

**Appearance**

For the Petitioner : Ms. Deepa Chawan (Sr. Adv.)

For the Respondent : Nil

**ORDER**

**Date: 31 December, 2025**

1. MSEDCL has filed this Petition on 12 December 2024 seeking approval of tariff discovered through competitive bidding carried out by NTPC Ltd. as Renewable Energy Implementing Agency (REIA) under MNRE Bidding Trajectory for FY 2023-24 notified on 24 April, 2023 along-with consideration of such energy for fulfilment of MSEDCL's RPO obligations.

## 2. Main Prayers of MSEDC 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 procurement of 1600 MW Solar Power from NTPC Ltd under Developer mode at discovered tariff Rs. 2.66-2.72 per kWh (including Trading Margin) as discovered in the e-reverse auction conducted by NTPC.*
- c) *To accord approval for Power Sale Agreement (PSA) and Draft PPA.*
- d) *To consider procurement of Solar Power purchased from NTPC under Developer mode for meeting RPO requirement of MSEDC.*

## 3. MSEDC in its petition has stated as follows:

3.1. The Commission notified the MERC (RPO, its compliance and implementation of REC framework) Regulations, 2019 (hereinafter to be referred as RPO Regulations 2019) on 27 December 2019 for the control period from FY 2020-21 to FY 2024-25. Subsequently, vide notification dated 23 February 2024 issued Amendment to the MERC (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate Framework) Regulations, 2019 ('the Principal Regulations')

3.2. As per Regulation 7.5(A) of the Amendment RPO Regulations 2019 dated 23 February 2024, the RPO targets are 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%
2029-30	3.48%	1.33%	4.50%	34.02%	43.33%

3.3. As per Regulation 7.6, of the RPO Regulations, 2019, procurement of RE power by a Distribution Licensee at the rate discovered through transparent process of competitive bidding may be considered by MERC for fulfilment of RPO of Distribution Licensee.

3.4. NTPC Ltd vide its letter dated 7 February 2024 and 2 May 2024 sought consent from MSEDC with below mentioned quantum (MW) for Solar Power under Developer mode from ISTS connected power projects. Accordingly, MSEDC vide letter dated 10 May, 2024 issued in-principle consent for procurement of 3000 MW Solar Power under Developer mode from ISTS connected power projects at discovered tariff which is mentioned below:

Sr. No	Capacity (MW)	Tariff (Rs/kWh) discovered in e-RA	Rate	Trading Margin payable by States / Discoms to NTPC (Rs/kwh)	Total including margin	(Rs/kWh) trading
1	1500	300 MW @ 2.60		0.07	2.67	
		1200 MW @ 2.65		0.07	2.72	
2	1500	2.59-2.60		0.07	2.66-2.67	

3.5. Thereafter, MSEDCL has signed total Four (4) Power Sale Agreements (PSAs) for 1600 MW Solar Power under Developer mode at tariff rates as above. The details of Solar Power Developers are as under:

Selected Developer	Quantum (MW)	Tariff (Rs/kWh)	Trading Margin (Rs/kWh)	Final Tariff including Trading Margin (Rs/kWh)	Date of PSA
Anboto Solar Private Limited	300	2.60	0.07	2.67	23.08.2024
Apraava Energy Private Limited	300	2.65	0.07	2.72	05.09.2024
Avaada Suryapower Pvt. Ltd.	300	2.65	0.07	2.72	14.10.2024
JSW Renew Energy Thirteen Ltd.	700	2.59	0.07	2.66	11.10.2024
<b>TOTAL</b>	<b>1600 MW</b>				

3.6. MSEDCL submitted the status of RPO Compliance that as on 30 September 2024, it has contracted 25569 MW renewable energy capacity for meeting RPO requirements, out of which 10431 MW has been commissioned. Considering the future increasing RPO targets, it needs to procure considerable quantum of Solar power for fulfilment of RPO targets. The recent discovered tariff in various tenders are as under (excluding trading margin):

Bidding Company	Discovered Rate (Rs/kWh)
NHPC 1200 MW, Sept-2024	2.56-2.57
SECI Tranche XVI, 500 MW, Aug-2024	2.48-2.49
SJVN, 1200 MW, Aug-2024	2.52-2.53

3.7. The actual Average Power Purchase Cost (APPC) of MSEDCL for FY 2023-24 is Rs. 4.82/kWh. The tariff offered by NTPC is lower than APPC. The landed tariff to MSEDCL will be around Rs. 2.59 to Rs 2.65/kWh + Rs 0.07/kWh (Trading Margin) + Rs 0.07/kWh (transmission losses) + Rs 0.13 (Transmission Charges) = Rs.2.86/kWh to 2.92/kWh at present. The project of 1600 MW Solar Projects will likely to be commissioned in FY 2026-27. Hence, the energy generated from these projects will be utilized for mitigating the RPO target of Other RPO.

3.8. The Commission issued MERC (Framework for Resource Adequacy) Regulations, 2024. As per this Regulation it has submitted Resource Adequacy (RA) plan to the Commission

for its approval on 15 October 2024. The capacity mix with current capacity addition plan submitted as under:

Year	Thermal +Gas	Nuclear	Large Hydro	PSP-BSES Storage	Wind	Solar	Hybrid	FDRE	Bagasse +Biomas s	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

3.9. It has planned the present procurement through NTPC of 1600 MW Solar power in FY 2026-27 and had executed PSAs with NTPC and thereby had filed the present Petition seeking approval for procurement of 1600 MW solar power through NTPC.

3.10. It has requested to approve the procurement of 1600 MW Solar power from NTPC under Development Mode at discovered tariff Rs. 2.59 to Rs. 2.65 per kWh (excluding Trading Margin). The NTPC trading margin is Rs. 0.07 per kWh which will be applicable over and above discovered tariff. The agreement will be for a period of 25 years from the Scheduled Commencement Supply Date (SCSD). The SCSD of the projects is 30 June, 2026.

3.11. The Tariff is adopted by CERC vide its order dated 23 September, 2024 in Petition No. 88/AT/2024. The Commission vide its order dated 11 May, 2023 in Case No. 41 of 2023 has adopted the tariff of Rs. 2.91 per kWh discovered in MSEDCL's Phase-VII tender.

4. Subsequently, MSEDCL filed an Interlocutory Application (IA) No. 139 of 2025 seeking urgent listing in Case No. 236 of 2024. The Commission listed the matter for e Hearing on 18 November, 2025

##### **5. E-hearing of Urgent IA No. 139 of 2025 held on 18 November, 2025:**

The Advocate of MSEDCL submitted that it has filed a Petition No. 236 of 2024 seeking adoption of Tariff and power procurement from NTPC. Considering time bound obligations for executing PPA and other actions, the matter needs to be expedited. The Commission accepted MSEDCL's request for early listing of Case No. 236 of 2024 and scheduled the matter on 28 November 2025.

##### **5. First e-hearing held on 28 November, 2025:**

The Advocate of MSEDCL reiterated its submission in the petition and sought approval for procurement of 1600 MW solar power through NTPC to meet its RPO target. The Commission directed MSEDCL to submit detailed plan for storage of solar power to bridge the gap between solar generation and consumer demand for effective utilisation during its Peak and Non-Peak Hours.

**6. Additional submission of MSEDCL dated 8 December, 2025 is summarized below:**

6.1. The Commission during the hearing held on 28 November, 2025 had directed to MSEDCL to file submission on how MSEDCL is planning to absorb surplus solar energy by using appropriate energy storage system. In this regards, MSEDCL floated tenders for installation of Standalone Battery Energy Storage System (BESS) under competitive bidding process as under:

**6.2. First Phase: (Case No. 173 of 2024)**

- i. MSEDCL floated tender for installation of 750 MW/1500 MWh Standalone BESS in its substations. The Commission vide its Order dated 20 March 2025 in Case No. 173 of 2024 had allowed its proposal for procurement of 250 MW/500 MWh (Base capacity) and 500/1000 MWh (additional Green Shoe) capacity of BESS at tariff of Rs. 2,19,001 per MW per Month discovered through competitive bidding for 12 years.
- ii. Subsequently, Letter of Award (LOAs) are issued to the successful bidders and Battery Energy Storage Purchase Agreement (BESPA) are also executed. Project execution is in Progress.
- iii. In the first phase BESS units of 10 MW / 20 MWh will be setup at strategic 75 MSEDCL substations where Solar generation under MSKVY 2.0 is planned. The Scheduled Commissioning Date of this project is 21 August 2026.
- iv. BESS of 10 MW / 20 MWh has been successfully commissioned at MSEDCL's Bhenda Substation, District Ahilyanagar.

**6.3. Second Phase (Case No.157 of 2025):-**

- i. As per MoP's Notification dated 9 June 2025, 4000 MWh capacity was allotted to Maharashtra with VGF support of Rs. 18 Lakhs per MWh supported by the Power System Development Fund (**PSDF**).
- ii. Accordingly Request for Selection (RfS) was issued for setting up of Battery Energy Storage capacity of 2000 MW/ 4000 MWh for MSEDCL.

- iii. MSEDCL has also filed Case No.157 of 2025 before the Commission seeking approval for procurement of storage capacity from 2000 MW / 4000 MWh (1 CYCLE) standalone battery energy storage system to be installed in MSEDCL / MSETCL sub-stations through competitive bidding and subsequent approval of the RfS of documents thereof. The Commission on 4 November 2025 had heard the matter and reserved it for orders.
- iv. Further, MSEDCL has filed petition on 4 December 2025 (Case No.246 of 2025) for adoption of tariff for procurement of storage capacity from 2000 MW/4000 MWh (1 CYCLE) BESS through Competitive Bidding process (With VGF support from PSDF) under Section 63 of EA, 2003 for meeting its RPO.

#### **6.4. Pumped Storage Projects (PSP) (Case No. 156 of 2024 and Case No. 171 of 2024)**

- i. The Commission vide its order dated 26 September 2024 in Case No. 156 of 2024 had adopted tariff discovered through competitive bidding under Section 63 of the EA, 2003 for procurement of 3000 MW (including 2000 MW under Green Shoe option) energy storage capacity for 40 years from Pumped Hydro Storage Plants.
- ii. The Commission vide its order dated 26 August 2025 in Case No. 171 of 2024 had also approved MSEDCL's proposal for procurement of additional 500 MW Pumped Hydro Storage capacity from M/s. Torrent Power Ltd. at tariff, adopted earlier vide Order dated 26 September 2024.
- iii. MSEDCL has successfully contracted Pumped Storage Capacity of 3500 MW.
- iv. The Scheduled Commissioning Date of this project for 1750 MW is October 2027 & for 1750 MW is October 2028.

6.5. MSEDCL has contracted sufficient (2750 MW-5500 MWh) Battery Energy Storage Systems (BESS) and (3500 MW) Pumped Storage system for absorption of surplus solar power that would be available as per RA plan.

#### **Commission's Analysis and Ruling:**

- 7. The Commission notes that in the present Petition MSEDCL is seeking approval on adoption of tariff for long term procurement of 1600 MW solar power from grid connected renewable energy power projects under developer mode selected by NTPC Limited at discovered rate of Rs. 2.66-2.72 per kWh (includes 7 Paise/Unit Trading Margin).
- 8. Before delving into merits of the matter, it would be appropriate to highlight following timeline in the proposed procurement:

Date	Event
7 February 2024 and 2 May 2024	NTPC sought consent from MSEDCCL with quantum (MW) for procurement of Solar Power under Developer mode through Tariff Based Competitive bidding in line with guidelines issued by Ministry of Power, Govt. of India.
10 May 2024	MSEDCCL issued In-Principle consent to NTPC for procurement of 3000 MW Solar Power offered by NTPC at discovered tariff rate.
MSEDCCL has signed total Four (4) PSAs for 1600 MW Solar Power under Developer mode at tariff rates as below:	
23 August 2024	For 300 MW with Anboto Solar Private Limited at rate of 2.67 Rs/kWh
5 September 2024	For 300 MW with Apraava Energy Private Limited at rate of 2.72 Rs/kWh
14 October 2024	For 300 MW with Avaada Suryapower Pvt. Ltd at rate of 2.72 Rs/kWh
11 October 2024	For 700 MW with JSW Renew Energy Thirteen Ltd at rate of 2.66 Rs/kWh
30 June 2026	Scheduled Commencement Supply Date (SCSD) of the projects

9. With above background and submissions made during proceeding, the Commission frames following issues for its consideration:

- Quantum of power procurement to be allowed to MSEDCCL;
- Competitiveness of the rate proposed for approval;
- Trading Margin (7 Paise per Unit) in present transaction;
- Utilisation of Solar power.

The Commission's ruling on above issues is provided in the subsequent paragraphs.

#### **10. Issue A: Quantum of Power Procurement to be allowed to MSEDCCL**

10.1. The Commission notes that MSEDCCL had filed the present Petition to meet future demand by accommodating RE sources in power basket and compliance of RPO targets.

10.2. To validate the proposed power procurement, MSEDCCL has referred to its Resource Adequacy (RA) Plan.

10.3. It is pertinent to note that with regards to CEA's Resource Adequacy Study, the Commission in its Order dated 26 September 2024 in Case No. 155 of 2024 has noted following:

“

5.7 CEA has conducted the Resource Adequacy study for MSEDC and the capacity projected by CEA considering 'Loss of Load Probability' and 'Expected Energy Not Served' is as under:

	Year	Coal	Gas	Nuclear	Bagasse + Biomass	Hydro	Wind	Solar	Hybrid (wind + Solar)	STOA/ OA	Storage (4 Hours) + PSP	Total
CEA	2033-34	27562	1076	1186	3439	3949	15905	30285	0	1457	2668	87528

The present contracted and consented capacity of MSEDC is as below:

	Coal	Gas	Nuclear	Bagasse + Biomass	Hydro	Wind	Solar	Hybrid (wind + Solar)	FDRE	Storage (4 Hours) + PSP	Total
MSEDC	22733	1077	1191	3439	4273	3905	24785	2880	1468	574	66325

Thus, capacity addition required by MSEDC by FY2033-34 is as under:

	Coal	Gas	Nuclear	Bagasse + Biomass	Hydro	Wind	Solar	Hybrid (wind + Solar)	DRE	Storage (4 Hours) + PSP	Total
MSEDC	4829	0	0	0	0	12000	5500	0	12693	2094	37116

”

10.4. From submission on record, it is evident that MSEDC's proposed procurement of 1600 MW has been factored into Resource Adequacy Study. Hence it is justified.

10.5. Apart from above, the Commission notes that MERC 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%
2029-30	3.48%	1.33%	4.50%	34.02%	43.33%

10.6. The quantum proposed to be procured by MSEDC will supplement its effort to meet RPO targets and fulfil past RPO shortfall.

## 11. Issue B: Competitiveness of the rate proposed for approval.

11.1. The Commission notes that the NTPC is a designated Renewable Energy Implementing Agency (REIA). NTPC is an intermediary procurer, has been procuring power from the different RE power developers for sale to the end procurers, as per provisions of Tariff Based Competitive Bidding (TBCB) guidelines issued by Ministry of Power (MoP), from time to time. Therefore, NTPC has back to back arrangement with other Solar developers

11.2. The proposed 1600 MW Solar power procurement is based on competitive bidding process followed by NTPC Limited. As the proposed Solar project is inter-state project,

any contractual issues including adoption of tariff is within the jurisdiction of the Central Commission. The scope of present proceedings is governed by Rule 8 of the Electricity Rules, 2005 which is reproduced below:

“

*8. Tariffs of generating companies under section 79.- The tariff determined by the CERC for generating companies under clause (a) or (b) of subsection (1) of section 79 of the Act shall not be subject to re-determination by the State Commission in exercise of functions under clauses (a) or (b) of sub-section (1) of section 86 of the Act and subject to the above the State Commission may determine whether a Distribution Licensee in the State should enter into Power Purchase Agreement or procurement process with such generating companies based on the tariff determined by the CERC.”*

*(Emphasis added)*

11.3. In the present case, the tariff of Rs. 2.66-2.72/kWh (including trading margin) has been discovered through transparent process of competitive bidding and adopted by the CERC. Therefore, scope of present proceeding is granting approval to MSEDCL for procurement of solar energy and execution of PSA.

## **12. Issue C: Trading Margin (7 Paise per Unit) in present transaction:**

12.1. It is pertinent to note that in present power transaction, NTPC Limited is acting as a trader/facilitator for a trading margin of Rs. 0.07/kWh. The said Trading Margin in accordance with the Competitive Bidding Guidelines, 2023 as well as Regulation 8 (1) (d) of the CERC Trading License Regulations, 2020.

12.2. The Commission notes that with regards to Trading Margin, Competitive Bidding Guidelines, 2023 stipulates following:

“

*h) 'Intermediary Procure' & 'End Procurer'*

...

*(ii) The Intermediary Procurer shall enter into a Power Purchase Agreement (PPA) with the RE Power developer and also enter into a Power Sale Agreement (PSA) with the End Procurer. The PSA shall contain the relevant provisions of the PPA on a back-to-back basis. Trading margin, of Rs.0.07/kWh shall be payable by the End Procurer to the Intermediary Procurer.”*

12.3. Further, CERC in its Tariff adoption Order dated 23 September 2024 has ruled on the issue of trading margin as follows:

*“41. The Petitioner, NTPC, has also prayed to approve the trading margin of Rs.0.07/kWh. In this regard, Clause (1)(d) of Regulation 8 of the Trading Licence Regulations provides as under:*

*“For transaction under long term contracts, the trading margin shall be decided mutually between the Trading Licensee and the seller:”*

42. *The above provision gives a choice to the contracting parties to mutually agree on trading margin for long-term transactions. However, proviso to Regulation 8(1)(d) of the Trading Licence Regulations provides as under:*

*“8(1) (d) \* \* \* \* \* Provided that in contracts where escrow arrangement or irrevocable, unconditional and revolving letter of credit as specified in clause (10) of Regulation 9 is not provided by the Trading Licensee in favour of the seller, the Trading Licensee shall not charge trading margin exceeding two (2.0) paise/kWh.”*

43. *Regulation 8(1)(f) of the Trading Licence Regulations provides as under:*

*“For transactions under Back to Back contracts, where escrow arrangement or irrevocable, unconditional and revolving letter of credit as specified in clause (10) of Regulation 9 is not provided by the Trading Licensee in favour of the seller, the Trading Licensee shall not charge trading margin exceeding two (2.0) paise/kWh.”*

44. *The above two provisions are exceptions to the main provision as regards trading margin. In the present case, the distribution licensee, MSEDCL, has agreed to a trading margin of Rs.0.07/kWh as agreed in the PSA, which is in consonance with Regulation 8(1)(d) of the Trading Licence Regulations. For the balance capacity also, the trading margin shall be as per the provisions of the PSAs to be entered into between NTPC and the distribution licensees. However, in case of failure by the NTPC to provide an escrow arrangement or irrevocable, unconditional, and revolving letter of credit to the solar generators, the trading margin shall be limited to Rs.0.02/kWh specified in Regulation 8(1)(d) and Regulation 8(1)(f) of the Trading Licence Regulations.”*

12.4. Thus, subject to above conditions stipulated by CERC, the Commission allows trading margin of Rs.0.07/kWh to be payable by MSEDCL to NTPC.

### **13. Issue D: Utilization of Solar Power:**

13.1. MSEDCL in its additional submission dated 8 December 2025 has submitted proposal for utilization of solar power by use of appropriate energy storage system. In this regards, MSEDCL floated tenders for installation of Standalone Battery Energy Storage System (BESS) and Pumped Storage Projects under competitive bidding process as under:

13.2. The Commission notes that MSEDCL has planned 2750 MW/5500MWh BESS and 3500 MW pumped hydro storage system for absorption of solar power.

13.3. The Commission notes that BESS will store the solar energy, managed and utilized during off peak period. It will also improve the grid stability, reducing energy costs, and it will enhance the efficiency and reliability of solar power. Also, the PSPs will be useful for longer period storage of Renewable Energy.

14. In view of above, the Commission allows MSEDC's proposal for procurement of 1600 MW Solar Power from NTPC Limited as per following details:

Developer	Quantum (MW)	Tariff (Rs/kWh)	Trading Margin (Rs/kWh)	Tariff including Trading Margin (Rs/kWh)
Anboto Solar Pvt. Ltd.	300	2.60	0.07	2.67
Apraava Energy Pvt. Ltd.	300	2.65	0.07	2.72
Avaada Suryapower Pvt. Ltd.	300	2.65	0.07	2.72
JSW Renew Energy Thirteen Ltd.	700	2.59	0.07	2.66
<b>TOTAL</b>	<b>1600 MW</b>			

15. Hence, the following Order.

### **ORDER**

- 1. The Petition in Case No. 236 of 2024 is allowed.**
- 2. The Commission accords its approval to the MSEDC's proposal for procurement of 1600 MW Solar Power from NTPC Limited at competitive bidding tariff of Rs. 2.66 to 2.72/kWh including trading margin of Rs. 0.07 per kWh for 25 years of Power Supply Agreement.**
- 3. The power procured from NTPC Limited shall be considered for meeting the Renewable Purchase Obligation requirement of MSEDC.**
- 4. The Commission approves the Power Supply Agreement executed between MSEDC and NTPC Limited for procurement of 1600 MW from Solar projects.**

Sd/-  
(Surendra J. Biyani)  
Member

  
(Dr. Rajendra G. Ambekar)  
Secretary

Sd/-  
(Anand M. Limaye)  
Member

Sd/-  
(Sanjay Kumar)  
Chairperson

