

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 159 of 2022

Petition of Adani Electricity Mumbai Limited- Distribution under Section 86(1)(b) read with Section 63 of the Electricity Act, 2003 seeking approval for Long-Term procurement of power 500 MW from grid connected Renewable Energy Power Projects, complemented with Power from any other Source on Round the Clock (RTC) basis, under Tariff-based Competitive Bidding process.

Adani Electricity Mumbai Limited- Distribution (AEML-D)...

Petitioner

Coram

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

Appearance

For the Petitioner

: Shri. Hemant Singh (Adv.)
Shri. Kishor Patil (Rep.)

ORDER

Date: 28 November 2022

1. Adani Electricity Mumbai Limited- Distribution (AEML-D) has filed the present Petition on 21 July 2022 seeking approval of procurement of long term 500 MW of Power from grid connected Renewable Energy (RE) Power Projects, complemented with Power from any other source on Round the Clock (RTC) basis, under Tariff-based Competitive Bidding process in terms of Section 63 of the Electricity Act, 2003 (EA-2003) read with Section

86(1)(b) to meet future anticipated demand in its area of supply and for meeting corresponding increased Renewable Purchase Obligation (RPO).

2. **AEML-D's major prayers are as follows:**

“

a) grant approval to the Petitioner to procure 500 MW of Power from grid connected Renewable Energy Power Projects, complemented with Power from any other source on Round the Clock (RTC) basis on long term through tariff based Competitive Bidding to meet the increasing load requirement, in terms as stated in the present petition;

b) approve bid documents i.e., draft RfS and draft long term PPA annexed as Annexures P-4 and P-5 respectively, in the present petition;

c) approve consideration of procurement of power from RE sources, which will be procured in future in terms of the present petition, towards meeting the current and future RPO requirement of AEML;

....”

3. **AEML-D in its Case has stated as follows:**

3.1. The Commission vide its Order dated 30 March 2020 in Case No. 325 of 2019, directed AEML-D to rationalize its power procurement plan with the view to ensure security of power supply considering its high dependency on short term market and also opined that AEML-D ought to secure power supply by tying up from long term / medium term sources at optimum rates for bulk of its requirement and rely on short term power for only around 10-12% of its power requirement.

3.2. In compliance of the above direction and for ensuring reliable power supply at competitive rate to its consumers, on 07 July 2020 AEML-D filed a Petition before the Commission (being Case No. 140 of 2020) seeking approval of procurement of long term 1000 MW of Power from grid connected RE power projects, complemented with power from Coal based thermal power projects in India on Round the Clock (RTC) basis, under Tariff-based Competitive Bidding process. AEML-D mentioned following justifications in the said Petition:

(a) Increase in short-term procurement on account of termination of Power Purchase Agreement (PPA) with Vidarbha Industries Power Limited (VIPL) located at Butibori. However, such high dependency on short term market is not sustainable in the long run as volume of electricity and price at which it is available is uncertain in short term market, as a result of which tariff payable by the end consumers can be volatile.

(b) Additionally, on account of the present circumstances of power shortage in the country, including shortage of coal, the price/ tariff of electricity in the power exchange has substantially risen up, which ultimately affects the end consumers of electricity.

3.3. The Commission vide its Order dated 12 July 2021 in Case No. 140 of 2020, directed AEML-D to revisit the demand-supply projections and accorded in-principle approval to the long-term power procurement for 500 MW in first phase. The Commission while determining the shortfall, has considered continuation of 500 MW power supply from Adani Dahanu Thermal Power Station (ADTPS) and accordingly directed AEML-D to procure additional 500 MW. In the same Order, alternative option of considering the tender of 1000 MW with a Green shoe option (500 MW+500 MW) was also suggested by the Commission.

3.4. As per the Commission's Order dated 08 February 2018 in Case No. 05 of 2017, Power Purchase Arrangement (PPA) with ADTPS is valid till 22 February 2023. Further, the Commission in its Order dated 30 March 2020 in Case No 325 of 2019, directed AEML-D to approach the Commission at least 6 months, before expiration of its Arrangement with ADTPS for either extension of Arrangement or power purchase from alternate source after exploring all available options of procurement considering the market conditions and transmission availability.

3.5. Accordingly, AEML-D filed a Petition before the Commission (Case No. 32 of 2022) dated 12 January 2022 for procurement of 1000 MW (500 MW + additional 500 MW under green shoe option) power from grid connected RE power projects, complemented with power from coal based thermal power projects in India on Round the Clock (RTC) on long term basis for the period of 10 years, under Tariff-based Competitive Bidding process, amongst other reliefs. The Commission has conducted hearing in the matter on 22 March 2022 and 15 July 2022 and reserved the case for Orders.

3.6. The present Petition has been filed on account of subsequent development that certain consumers in AEML-D supply area has indicated their future load requirement 3 to 4 years down the line for meeting their expanded business power requirement. The summary of the enquiries from consumers is as below:

Sr No	Enquiries from Developers	Indicated Load Requirement (MW)	Estimated LF	Estimated Energy Sale (MU)
A	Load Requirement in FY2022			
	Commercial development at Vile-parle	25	80%	175

Sr No	Enquiries from Developers	Indicated Load Requirement (MW)	Estimated LF	Estimated Energy Sale (MU)
	Sub-Total A:	25		175
B	Load Requirement in FY2023			
	Commercial development at BKC	5	50%	22
	I T Park at Powai	5	70%	31
	Public EV Charging at Malad	40	60%	210
	Sub-Total B:	50		263
C	Load Requirement in FY2024			
	Data Centre at Chandivali	70	90%	552
	Diamond Industry at Malad & Mira Road	20	90%	158
	Sub-Total C:	90		710
D	Load Requirement in FY2025			
	Data Centre at Chandivali	40	90%	315
	Data Centre at Powai	90	90%	710
	Sub-Total D:	130		1025
E	Load Requirement in FY2026			
	Data Centre at Chandivali	38	90%	300
	Infrastructure Project	90	75%	591
	Commercial development at BKC	30.5	50%	134
	Commercial development on JVLR	7.8	50%	34
	Hospital + Commercial development at Borivali	21.5	50%	94
	Commercial development at BKC	14.2	50%	62
	Public Transport Project at Mira Road	25	60%	131
	Sub-Total E:	227		1346
F	Load Requirement in FY2027			
	Data Centre at Chandivali	40	90%	315
	Data Centre at Chandivali	38	90%	300
	Data Centre at Chandivali	38	90%	300
	Sub-Total F:	116		915
	Grand Total	638		4433

3.7. From the above table, it can be noticed that most of the loads are pertaining to data centers. Government of Maharashtra has announced its IT / ITES Policy 2015 vide GR dated 25 August 2015. In the said policy, incentives have been announced for Data Centers. Further, the Government of Maharashtra is keen to promote Data Centers with special focus on the city of Mumbai. The vision is to position Mumbai as the Data Center Hub not only for

India but also for Asia Pacific region. As a result, large number of under-sea cables is landing into Mumbai.

- 3.8. In view of above, it is expected that additional demand of 500 MW on account of the projected requirement of these consumers will come within 2 to 3 years i.e. FY 2026-27. Therefore, AEML-D is before the Commission seeking initiation of process of procurement of additional 500 MW power on long term basis to meet the demand arising out of developments shown in table above.
- 3.9. The Commission vide its Order dated 12 July 2021 passed in Case No. 140 of 2020, allowed following deviations in the bidding documents from those proposed in the standard documents:
- a) Delivery Point as Maharashtra STU Periphery instead of CTU Interconnection Point;
 - b) Provision for Payment Security Fund and State Government Guarantee to be deleted;
 - c) Variable Components of Non-RE Power to be quoted as on Bid Submission date instead of Scheduled date of Commissioning.

AEML-D sought to retain the above deviations in the present Petition.

- 3.10. Apart from the above deviations already approved by the Commission in Case No. 140 of 2020, AEML-D has proposed following additional deviations:

3.10.1 Evaluation of Bid with respect to the Escalation Factors (AEML proposes to evaluate bids at first year quoted tariff).

CERC has notified the escalation rates for evaluation purpose as 4.21% for domestic and 1.17% for Imported coal. However, it is pertinent to note that actual escalation in imported coal prices as seen during last 24 months period is 71% as against CERC escalation of 1.17%. While the actual escalation for domestic coal prices during the same period is 0.09% as against CERC escalation rate of 4.21%.

3.10.2 PPA term of 10 years instead of 25 years

- 3.11. In light of submissions made hereinabove, AEML-D has undertaken to adhere to the deviation approved by the Commission in its order dated 12 July 2021 passed in Case No. 140 of 2020 and the proposed deviation sought in Case No 32 of 2022 for incorporation in the draft RFS and PPA.

4. At the E-hearing held on 7 October 2022:

- 4.1. Advocate of AEML-D re-iterated the rationale for proposed power procurement. With regards to procurement process, AEML-D mentioned that based on market conditions, if required it may opt to carry out single bidding process for 500 MW (Case No.32 of 2022) and quantum suggested in present Petition. But as of now these two tenders will be distinct. Further, tariff of ADTPS will be ceiling tariff in procurement process.
- 4.2. Considering submission on record, the Commission directed AEML-D to provide clarification on the escalation trend of CERC index and other standard Index, possibility of power procurement through SECI Tendering, documents sufficing possible load growth and brief note presented by AEML-D during hearing.
5. **AEML-D vide its additional submission dated 10 October 2022 stated as below:**

5.1. The escalation trend of CERC index and other standard Index:

5.1.1 CERC's Escalation rates for Purpose of Evaluation as per Competitive Bidding Guidelines dated 22 July 2020 and amendment thereof-

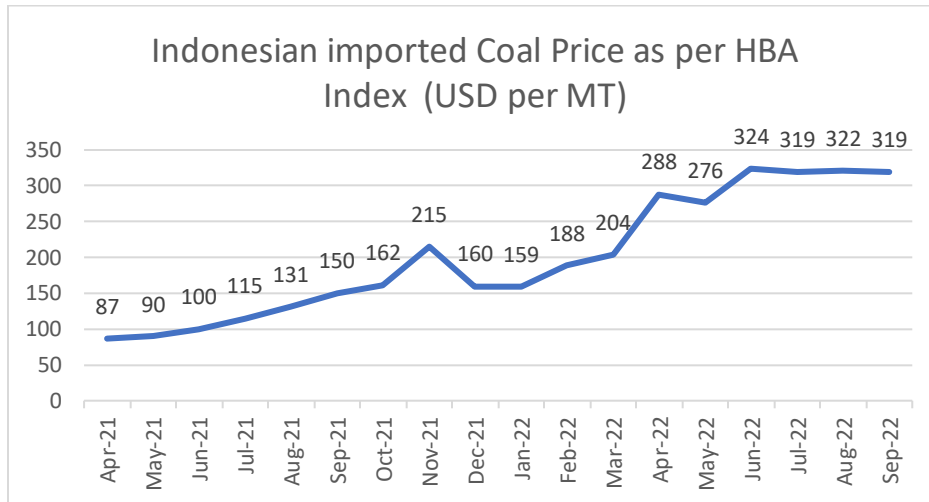
Sr No	Date of CERC Notifications	Applicable Period	Domestic Coal Escalation Rate in %	Imported Coal Escalation Rate in %
1	31 May 2021	Bid opening up to 31.03.2023	4.21%	1.17%
2	18 April 2022	Bid Opening up to 31.03.2023	3.99%	-1.59%

CERC's Escalation rates for payment purpose under 'Guidelines for Determination of Tariff by Bidding Process for Procurement of Power by Distribution Licensees', dated 19 January 2005.

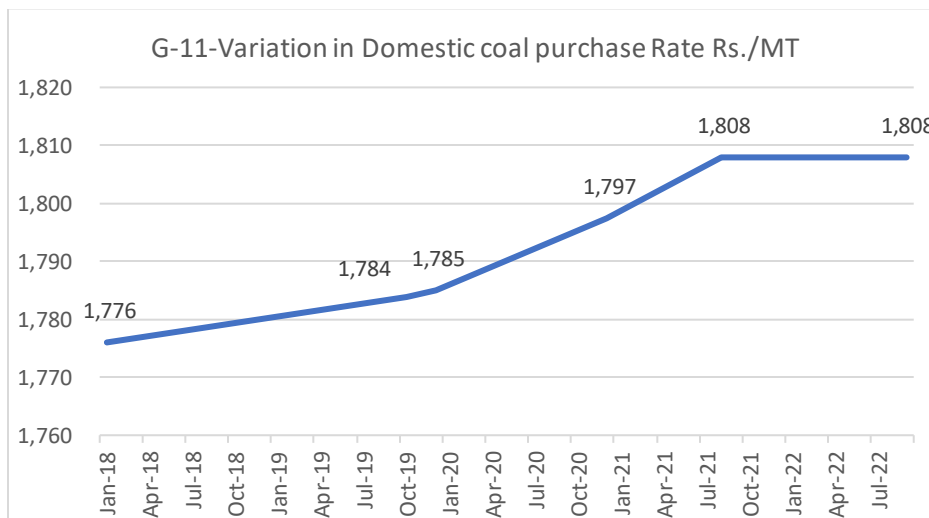
Sr No	Date of CERC Notifications	Applicable Period	Domestic Coal Escalation Rate in %	Imported Coal Escalation Rate in %
1	30.05.2017	01.04.2017 to 30.09.2017	13.78%	97.50%
2	10.10.2017	01.10.2017 to 31.03.2018	0%	-4.36%
3	22.06.2018	01.04.2018 to 30.09.2018	0%	33.82%
4	15.10.2018	01.10.2018 to 31.03.2019	21.66%	2.98%
5	05.04.2019	01.04.2019 to 30.09.2019	0.88%	-24.36%
6	30.10.2019	01.10.2019 to 31.03.2020	0%	-30.71%
7	13.05.2020	01.04.2020 to 30.09.2020	0%	-4.94%
8	12.10.2020	01.10.2020 to 31.03.2021	0%	-41.79%
9	23.04.2021	01.04.2021 to 30.09.2021	0.93%	63.89%
10	27.10.2021	01.10.2021 to 31.03.2022	0%	115.33%

Sr No	Date of CERC Notifications	Applicable Period	Domestic Coal Escalation Rate in %	Imported Coal Escalation Rate in %
11	18.04.2022	01.04.2022 to 30.09.2022	0%	107.52%
12	01.10.2022	01.10.2022 to 31.03.2023	0%	107.99%

5.1.2 Indonesian coal-GRAFIK HARGA BATUBARA ACUAN (HBA) Trend



5.1.3 Domestic Coal Prices Variation Trend worked out for G11 Grade Coal



5.1.4 Details for domestic coal prices working are given in table below:

Washery mode G11-100mm	Jan-18	Oct-19	Dec-19	Dec-20	Aug-21	Sep-22
Basic Rate - G11 grade	955.00	955.00	955.00	965.00	965.00	965.00
Royalty 14%	133.70	133.70	133.70	135.10	135.10	135.10

NMET 2% on Royalty	2.67	2.67	2.67	2.70	2.70	2.70
DMF 30% of Royalty	40.11	40.11	40.11	40.53	40.53	40.53
STC	27.00	27.00	27.00	27.00	27.00	27.00
Sizing Chrg. -100 mm	87.00	87.00	87.00	87.00	87.00	87.00
CG Paryavaran & Vikas Upkar	15.00	22.50	22.50	22.50	22.50	22.50
Terminal Tax	-	-	1.04	1.04	1.05	1.05
Evacuation Facility Charges	50.00	50.00	50.00	50.00	60.00	60.00
Total	1,310.48	1,317.98	1,319.02	1,330.87	1,340.88	1,340.88
IGST 5%	65.52	65.90	65.95	66.54	67.04	67.04
GST Cess	400.00	400.00	400.00	400.00	400.00	400.00
Raw coal purchase Rate Rs. /MT	1,776	1,784	1,785	1,797	1,808	1,808

Note: No change for - 100 mm coal from Aug21 onwards.

- 5.2. With regards to the Commission's query on possibility of power procurement through SECI Tenders, it is submitted that, although SECI is in process of issuing tenders, however, it may take considerable time in finalizing the same. Since, AEML-D has to meet its consumers demand gradually from ~ 50 MW in FY 2022-23 to ~ 600 MW in FY 2026-27, and further assuming that around 18 to 24 months are required to be given to successful bidder as per Standard Bidding Guidelines, the process of tendering needs to be initiated as early as possible.
- 5.3. Further, procuring through SECI tender process, the same attracts a trading margin of 7 paise per unit. In case AEML-D goes through SECI for procurement of power then AEML-D consumers will have to bear impact of trading Margin for each unit purchased, which will amount to Rs.307 Crores for 10 years.
- 5.4. For sufficing possible load growth, AEML-D furnished application/ Communications as received from various consumers in sealed envelope.
- 5.5. In compliance of the directives of the Commission, AEML-D has also put on record the Brief Note of its arguments presented during hearing. AEML-D in its Brief has highlighted following aspects:

Bid Documents & deviations:

AEML-D has proposed to use the same bid documents which are proposed under Case 32 of 2022 along with deviations stated therein. However, MoP vide its revised guidelines dated 26 August 2022 has introduced following changes, which AEML-D shall adopt as it is:

Sr. No.	Particulars	Latest Guidelines dated 26.08.2022	AEML 500 MW RFS Document	AEML shall incorporate it in bid documents
1	Availability	at least 90% availability on a monthly basis for at least eleven months in a year and at least 90% availability during the peak hours.	at least 85% availability annually and at least 85% availability during the peak hours.	Yes
2	Penalty for not maintaining availability	... Penalty for not meeting the stipulated availability shall be equal to the fixed tariff for the number of units not supplied.....	The amount of compensation shall be 400% (Four hundred per cent) of the cost of this shortfall in energy terms, calculated at the applicable tariff payable during the Contract Year.	
3	Change in law	The provisions for —Change in Law shall be in accordance with the Electricity (Timely Recovery of Costs due to Change in Law) Rules, 2021 notified by Ministry of Power vide notification dated 22nd October 2021 including amendments and clarification thereof issued from time to time.	Not specific	Yes
4	Selection of Successful Bidders	For bucket filling after allocating bided capacity to L1, sequentially L2, L3, shall be allocated.	Bucket filling i.e. capacity quoted by L1 bidder at L1 rates shall be allocated first, then the capacity quoted by the next lowest	Yes

Sr. No.	Particulars	Latest Guidelines dated 26.08.2022	AEML 500 MW RFS Document	AEML shall incorporate it in bid documents
		<p>However, the allocation will only be made to the bidders whose bid falls within a pre-defined “range” from the L1 tariff, as stipulated in the RfS. Thus, after arranging the bidders in the ascending order of tariff, the Project capacities will be awarded only to those bidders whose final price bids are within a range of “L1+x%”, in terms of INR/kWh; while the value of “x” generally be two (2) to three (3) and shall be fixed in the RfS.”</p>	<p>bidder (called the L2 bidder) at the rates quoted by him (called the L2 rates) may be allocated and so on.</p>	
5	<p>Early commissioning of single component outside PPA</p>	<p>In case of procurement of discrete component(s) power outside the PPA, such power shall be purchased at 50% of the PPA Tariff / weighted average levelized tariff for the applicable Contract Year. Specific provisions in this regard to be stipulated in the tender documents.</p>	<p>No specific provision in AEML document. However, part commissioning is allowed as per AEML document and in case of part commissioning, AEML may purchase the generated Power till SCD at the PPA tariff at its sole discretion.</p>	Yes

Commission's Analysis and Rulings

6. The Commission notes that prior to filing of this Petition, AEML-D has approached the Commission seeking approval for procurement of 1000 MW from RE sources supplemented with thermal power projects with objective to reduce its dependency on short term power procurement and to meet RPO. In the present Petition, AEML-D has proposed additional RE power procurement of 500 MW supplemented with thermal power projects.
7. Before dealing with issues in present Petition, the Commission is summarizing below its various directions to AEML-D relating to power procurement:
 - a. In MYT Order dated 30 March 2019 (Case No. 325 of 2019), the Commission observed that AEML-D has put very high reliance on short term power (in excess of 50%) in its power procurement projected for control period. Hence, the Commission directed AEML-D to rationalize its power procurement plan with the view to ensure security of power supply at optimum rates, so that the consumers are not subjected to any risk of supply failure and are insulated against the vulnerability in the Short Term Power Market.
 - b. Accordingly, AEML-D has filed Case No. 140 of 2020 seeking approval for procurement of 1000 MW power from RE sources complemented with Thermal Projects on RTC basis.
 - c. After scrutiny of demand-supply projections submitted in Case No. 140 of 2020, the Commission observed that as against 1000 MW requirement projected by AEML-D, only 500 MW power procurement is justified. Accordingly vide its Order dated 12 July 2021 in Case No. 140 of 2020, the Commission has allowed AEML-D to initiate bidding process for 500 MW RE power complemented with thermal projects on RTC basis. In the said Order, option of filing fresh Petition for justifying its power requirement of 1000 MW was given to AEML-D.
 - d. Accordingly, AEML-D has filed fresh Petition in Case No. 32 of 2022 for justifying its power requirement of 1000 MW. In said Petition, AEML-D has highlighted that while allowing only 500 MW power requirement, the Commission in Order dated 12 July 2021 has considered that 500 MW power from Dahanu TPS will be continued beyond February 2023, whereas PPA with Dahanu TPS is expiring in February 2023. If said 500 MW of expiring PPA is included, then AEML-D's power requirement becomes 1000 MW.

- e. Considering above factual aspect, the Commission vide Order dated 1 November 2022 has allowed AEML-D to initiate process for long term power procurement of 1000 MW (500 MW + additional 500 MW under green shoe option) with condition that green shoe option of 500 MW would be exercised only if there is no further extension to PPA with Dahanu TPS once power flow from proposed procurement process commences i.e. post October 2024.
- f. Actual power flow from proposed 1000 MW RE RTC (supplemented with thermal project) is proposed from October 2024 onwards.
- g. Meanwhile to reduce dependency on Short term power requirements, AEML-D has approached the Commission in Case No. 149 of 2022 for adoption of tariff for medium term power procurement from thermal sources. The Commission vide Order dated 29 August 2022 has adopted tariff and approved 500 MW medium term power procurement for the period of 1 September 2022 to 14 October 2024. Post such period, power from 1000 MW RE RTC (supplemented with thermal project) will be available.
- h. Hence, with medium term power procurement of 500 MW thermal power for the period upto October 2024 and proposed 1000 MW RE RTC power procurement from period post October 2024, AEML-D has already reduced its dependency on short-term power procurement substantially.
8. With above background, the Commission notes that sole basis of the present Petition is requirement (based on enquires) of power received from prospective consumers especially data center load. From document placed on record, it is evident that the prospective load is coming up in sub-urban areas of Mumbai. AEML-D in its Petition mentioned following year wise upcoming load requirement which was not factored in MYT Projections:

Particulars	Financial Year					
	2022	2023	2024	2025	2026	2027
Indicated load requirement (MW)	25	50	90	130	227	116
Cumulative Load Requirement (MW)	25	75	165	295	522	638

9. AEML-D in its Petition also made reference to its Petition in Case No.32 of 2022 wherein it requested approval for procurement of 500 MW with 500 MW under green shoe option from grid connected RE Power Projects, complemented with Power from Coal based Thermal Power Projects on RTC basis has been made. In present Petition, AEML-D has proposed to use the same draft bid documents which are provided under Case 32 of 2022 along with deviations stated therein.

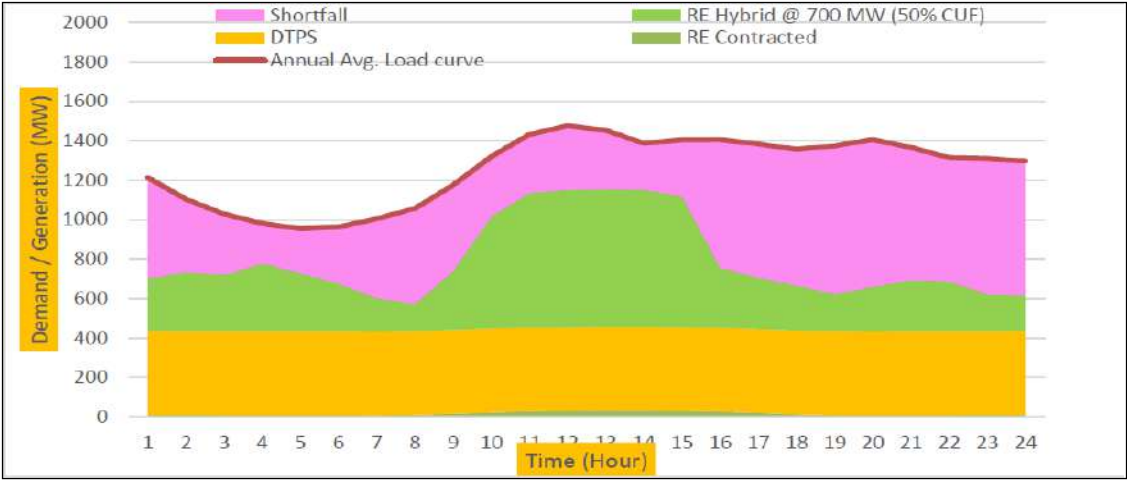
- 10. Based on submissions on record, the Commission frames following issues for its consideration:
 - a. Whether proposed quantum of long-term power procurement is in line with demand-supply projection?
 - b. Whether deviation sought from competitive bidding guidelines by AEML-D in context with the present Petition are justified?
 - c. Way forward

The Commission is addressing above issues in following paragraphs.

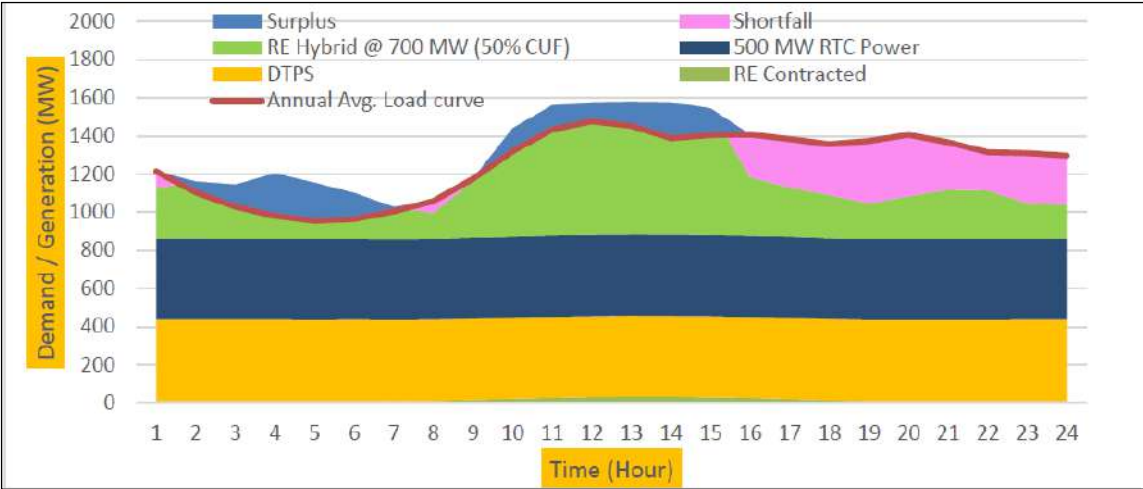
11. Issue A: Whether proposed quantum of long term power procurement is in line with demand-supply projection?

11.1. The Commission notes that AEML-D has proposed long term procurement of 500 MW of RE power complimented with Power from any other source on Round the Clock (RTC) basis. As per AEML-D’s estimate, it has received enquiries for new power supply demand for Cumulative capacity of 638 MW by 2027. For justifying power procurement, AEML-D has relied upon demand - supply projections approved by the Commission in its Order dated 12 July 2021 in Case No.140 of 2020.

11.2. The Commission in its Order dated 12 July 2021 in Case No. 140 of 2021 had considered the following Load Curve of AEML-D for FY 2024-25 for analyzing the demand supply position of AEML-D:



11.3. The Commission had also observed that there was power shortfall in the range of 200 to 750 MW at different hours in a day and such shortfall needed to be replaced with medium/long term power contract. Further, the Commission noted that if additional procurement of 500 MW on RTC basis was considered, then above Load Curve would be updated as follows:



11.4. The Commission had observed that 500 MW RTC power could be easily absorbed with limited surplus at few hours. Still there would be shortfall for 9 hours of evening to midnight (200 – 320 MW) which in the initial years can be sourced through short-term contract/medium term contracts or through banking contracts with other Distribution Licensees (complementing the daily load curves of other Distribution Licensees) if it is economical.

11.5. As is evident from the above load curve, 500 MW ATDPS power has been considered as a part of the AEML-D’s portfolio. During that time, the PPA with ADTSPS was valid only till 22 February 2023. Subsequently, the Commission vide its Order dated 1 November 2022 in Case No.32 of 2022 has accepted the prayer of AEML-D seeking extension of present PPA between AEML-D and ADTSPS, being the embedded generation, till 15 October 2024 or actual commissioning date of the successful bidder’s (500 MW+ additional 500 MW under green shoe option) project under the future competitive bidding process, whichever is earlier.

11.6. In above said order dated 1 November 2022, with regards to exercising of green shoe option, the Commission noted following:

“

15.13 *AEML-D, in present Petition, has proposed procurement of 1000 MW (500 MW + additional 500 MW under green shoe option) and stated that it has an intention to replace ADTPS power in case discovered rates are competitive as compared to ADTPS power. Thus, from AEML-D's submission, it is seen that the green shoe option will be exercised only if the discovered Tariff is competitive and under that scenario, ADTPS will not be continued meaning thereby that in the event ADTPS continues after 2024, the requirement of AEML-D would be 500 MW.*

15.14 *In view of the above, the Commission is of the view that AEML-D's assessment of procurement of 1000 MW (500 MW + additional 500 MW under green shoe option) is justified provided that 500 MW Green shoe option will be exercised only if there is no further extension of 500 MW ADTPS once the power flow from the proposed procurement process commences i.e. post October 2024. It is directed that after discovery of Tariff pursuant to competitive bidding, AEML-D shall seek prior approval of the Commission before exercising the green shoe option under the proposed procurement.” (Emphasis added)*

11.7. Thus, in the above Order, the Commission allowed 1000 MW (500 MW + 500 MW) bidding on the premise that green shoes option would be considered only if PPA with ADTPS is not extended beyond 2024. 500 MW power procurement proposed in present Petition is in addition to 1000 MW bidding process allowed in Order dated 1 November 2022.

11.8. In the present Petition, over and above the approved demand projections, AEML-D is anticipating that it will require additional power to cater the upcoming load of data centers to the tune of 638 MW (by 2027). As stated in the Petition, this demand builds up in gradual manner over the period of five (5) years down the line. However, AEML-D has proposed to procure additional 500 MW from 2024 itself. As per its own estimates, cumulative additional power requirement for FY 2024 is 165 MW and for FY 2025 is 295 MW. Only in FY 2026, additional requirement will reach upto 522 MW. Thus, as per their own estimates, procurement of additional 500 MW would create surplus during FY 2024 and FY 2025.

11.9. Further, it is pertinent to note that Mumbai has competing parallel Distribution Licensee and these upcoming loads including existing load shift from one licensee to another based on tariff difference. Further, many multinational corporates are emphasising their requirement of green power supply only. They could also exercise options of Open Access and Rooftop installations which might cause demand disruption.

- 11.10. During the hearing, the Commission enquired AEML-D regarding risk mitigation in case of reduced offtake. Representative of AEML-D submitted that for reduced offtake, draft PPA stipulates that the generator has to sell its power in the power exchange as a price taker. Any amount realized by the Generator, by third party sale or sale in the power exchange as price taker for RE power or sale in the power exchange for Non-RE power of such power which was offered but not scheduled, shall be shared with the Procurer.
- 11.11. In view of the above analysis, to strike the balance instead of bidding for 500 MW as full quantity, the Commission directs AEML-D to bid for 250 MW + 250 MW under green shoe option. Post bidding process, based on tariff discovered during the bidding process, and possibility of realizing estimated demand into actual connections considering then applicable competing scenarios, AEML-D may approach Commission for adoption of tariff for appropriate capacity with detailed justification. This is in addition to 1000 MW (500 MW + 500 MW under green shoe option) allowed in Order dated 1 November 2022.

12. **Issue B: Whether deviation sought from competitive bidding guidelines by AEML-D in present Petition are justified?**

12.1. AEML-D has stated that the Commission in its Order dated 12 July 2021 in Case No. 140 of 2020, has allowed following deviations in the bidding documents from those proposed in the standard documents:

- i. Delivery Point as Maharashtra STU Periphery instead of CTU Interconnection Point;
- ii. Provision for Payment Security Fund and State Government Guarantee to be deleted;
- iii. Variable Components of Non-RE Power to be quoted as on Bid Submission date instead of Schedule date of Commissioning.

12.2. AEML-D has sought to retain the above deviations in the present Petition.

12.3. In addition to above, AEML-D has proposed the following additional deviation from Guidelines issued by Ministry of Power, Government of India:

- i. Evaluation of Bid with respect to the Escalation Factors; AEML-D proposed to evaluate bids at first year quoted tariff;
- ii. PPA term of 10 years instead of 25 years.

The Commission notes that AEML-D has considered above deviations in its Petition in Case No.32 of 2022.

12.4. The Commission has issued an Order in Case No.32 of 2022 on 1 November 2022. The Commission in said Order has not accepted the deviation with regards evaluation of bid with respect to the Escalation Factors. Whereas AEML-D's proposal for a 10 years' PPA has been accepted. Relevant part of Order dated 1 November 2022 is reproduced below:

“16.6 In this context, the Commission notes that for computing the escalation rates for domestic coal, the data of Wholesale Price Index for non-coking coal for preceding 12 years is considered by CERC. Further, for computing escalation rates for imported coal, CERC considers the data regarding the composite index of difference sources such as Indonesian coal, South African coal etc. for imported coal for 12 years period. On the other hand, AEML-D has considered the variation in coal prices for only 24 months. Thus, the comparison of escalation rates has been done for different periods. Hence same is not a proper comparison and cannot be a justified ground for seeking deviation from the guidelines.

16.7 The Commission also notes that AEML-D, in its earlier Petition in Case No. 140 of 2021, had sought approval for this deviation. However, the Commission did not allow the deviation stating that different fuel sources are to be considered for non-RE power, consideration of CERC escalation rates would be mandatory. The relevant extract of the Order reads as follows:

“ 14.6. d) Evaluation of Bid with respect to the Escalation Factors.

i. AEML has submitted that as it has proposed to restrict non-RE power to only domestic fuel based thermal power plant, the CERC escalation index which otherwise required for arriving at levelized tariff for other sources of fuel will not be required in present case. As only one source of fuel is proposed, it will have uniform escalation index and hence it has proposed to evaluate the bid based on the quoted variable components of tariff

ii. In this regard, the Commission notes that as it has not allowed AEML's deviation to restrict the non-RE capacity to only domestic fuel based Thermal Generation and directed AEML to allow all type of non-RE sources to participate in the bidding process, CERC escalation index for different nonRE sources as mentioned in SBG is mandatory now. Hence, the Commission cannot allow such deviation sought by AEML.”

16.8 The Commission notes that although initially, AEML-D had envisaged only coal based thermal power plants as non RE source, while submission of comparison of its bid document with SECI document as a part its data gap replies, it has confirmed that AEML

may consider firm power from any other source in line with the Commission Order in Case No. 140 of 2021. Further, the RfS document of AEML-D provides that the Developer shall set-up generating system(s) for supply of RE Power and complement/balance the RE Power through supply of firm power from any other source in order to meet the commitment of RTC supply. Hence, since different fuels are envisaged as source for non RE power, the Commission is of the view that stand taken by the Commission in Case No. 140 of 2021 needs to be retained in present case also. Accordingly, the Commission is not inclined to allow the deviation sought by AEML-D.

16.9 Further, the RFS document of AEML-D provides that the quoted tariff shall comprise of four part – Fixed component for RE power, Fixed part for Non RE power, variable component for non RE escalable for fuel and variable power for Non RE power escalable for transportation. The Fixed component of tariff for Non RE power is to be quoted for each year of the term of PPA. The variable component of the Non RE escalable for fuel and transportation is to be quoted as on bid submission date. RFS provides that weighted average first year Tariff shall be computed as follows:

*Evaluated Weighted Average first year Tariff = X % * (Fixed RE Tariff) + Y % * (Levelized Fixed Non RE Tariff + quoted variable component of Non RE power escalable for fuel + quoted variable component of Non RE power escalable for transportation))*

where X = % quoted RE energy supply

Y = % quoted Non RE energy supply

16.10 In this context, the Commission notes that as per amendment dated 26 August 2022 made in the guidelines (which has been issued after filing of the present Petition and after closing the Petition for Order), the first year weighted average levelized Tariff in Rs./kWh and the bidder shall be selected on the basis of least quoted weighted average levelized Tariff'. The relevant extract of the guidelines reads as follows:

“6.4 Weighted Average Levelized Tariff as the Bidding Parameter: The bidding evaluation parameter shall be the weighted average levelized tariff per unit supply of RTC power. The Procurer shall invite bids wherein the bidder shall quote the first year weighted average levelized Tariff in Rs./kWh. The quoted tariff shall comprise of four part – Fixed component [RE power (fixed), non-RE power (fixed)] and Variable component [Non -RE power (escalable for fuel), and non-RE power (escalable for transportation)]. The Fixed component of tariff of the RE power and Non RE power shall be quoted for each year of the term of PPA. The variable component of the Non RE power shall be quoted as on scheduled date of commissioning. The levelised tariff shall be arrived at using the CERC escalation indices for the type of fuel quoted by the bidder and the discount factor to be specified in the bidding document. The bidder shall

also quote the proportion of energy from RE sources and non-RE source that he wishes to supply. The weighted average levelised tariff per unit supply shall be arrived at for the term of PPA and proportion of energy from RE sources and Non RE source.”

16.11 Thus, the guidelines envisage that all the four components of the Tariff shall be levelized whereas AEML-D’s RFS provides that only Fixed component of non-RE power shall be levelized. Thus, the evaluation parameter as per the guidelines is Weighted Average Levelized Tariff. However, in case of AEML-D’s bid document, the bid evaluation parameter is Weighted Average first year Tariff. The Commission is of the view that if AEML-D’s aforementioned deviation is accepted, there would not be clarity on the Tariff to be paid to successful bidder as it would amount to accepting the bid at some Tariff and paying the successful bidder during the contract period for some different Tariff.

16.12 In view of the above, the Commission does not accept this deviation and AEMLD is directed to modify its bid document in line with the guidelines.”

.....

“16.15 The Commission is aware of the fact that getting tied up for 25 years would help the recovery of the project cost over a longer period and such longer period for recovery helps to get lower Tariffs. However, AEML-D has envisaged the supply of non RE power from existing plants. There is a greater possibility that such depreciated plants would have a lower Tariff to offer. Hence, the objective of the longer period PPA may not get defeated even if a comparatively lower term PPA such as a 10 year PPA is considered.

16.16 The Commission further notes that as per Regulation 19.2 (a) of the MYT Regulations, 2019, procurement for a duration exceeding seven years falls under the category of long term power procurement. Hence, AEML-D’s proposal for a 10 years’ PPA is in accordance with the MYT Regulations.

16.17 Hence, the Commission deems it appropriate to accept the deviation proposed by AEML-D regarding PPA term.”

12.5. Identical deviation has been sought in the present Petition with the same rationale as was specified in its Petition in Case No.32 of 2022. Hence, the Commission finds it appropriate to continue with dispensation provided in its Order dated 1 November 2022 in Case No.32 of 2022 and allow deviation regarding 10-year PPA tenure but reject deviation sought with reference to escalation factor.

13. Issue C: Way forward

- 13.1. The Commission notes that during the hearing, AEML-D circulated the brief note, wherein it informed that Ministry of Power vide its notification dated 26 August 2022 has issued amendments to the Guidelines.
- 13.2. AEML-D has categorically stated that it shall adhere to the provisions made in the latest amendments and will revise the Bid documents accordingly. Major stipulations are with regards to availability, Penalty for not maintaining availability, Change in law, Selection of Successful Bidders and Early commissioning of single component outside PPA.
- 13.3. As the revised amendments have not been incorporated in bid documents submitted in this Petition, it is not possible for the Commission to check for their consistency with reference to complete bid document. Considering time frame of bidding exercise, the Commission directs that the necessary changes shall be incorporated by AEML-D meticulously. After framing of bid document, the copy of the same shall be forwarded to the Commission for information and for perusal (both in tack change + Clean copy mode). At the time of tariff adoption process, AEML-D shall assist the Commission in satisfying that provision of competitive bidding guidelines has been duly complied with.
14. Hence, the following Order:

ORDER

- 1. The Case No. 140 of 2020 is Partly allowed.**
- 2. Adani Electricity Mumbai Ltd- Distribution is allowed to initiate bidding process for additional procurement of power upto 250 MW + 250 MW green shoe portion on RTC basis from grid connected Renewable Energy Power Projects, complemented with Other Non-Renewable Energy source.**
- 3. Adani Electricity Mumbai Ltd.- Distribution to modify the Bidding Documents as per the dispensation provided in the paras (12) above.**
- 4. The Renewable Power procured by Adani Electricity Mumbai Ltd. - Distribution from this project shall be counted towards its Renewable Purchase Obligation Targets for the respective periods.**

Sd/-
(Mukesh Khullar)
Member

Sd/-
(I.M. Bohari)
Member

Sd/-
(Sanjay Kumar)
Chairperson

