

**TAMIL NADU ELECTRICITY REGULATORY COMMISSION**

**Order of the Commission dated this the 18<sup>th</sup> Day of July 2024**

**PRESENT:**

Thiru.M.Chandrasekar	....	Chairman
Thiru.K.Venkatesan	....	Member
	and	
Thiru.B.Mohan	....	Member (Legal)

**M.P. No. 43 of 2023**

The Chief Engineer  
Private Power Projects  
Tamil Nadu Generation and Distribution  
Corporation Limited (TANGEDCO),  
144 Anna Salai,  
Chennai – 600 002.

... Petitioner  
(Thiru.N.Kumanan and  
Thiru.A.P.Venkatachalapathy  
Standing Counsel for TANGEDCO)

**ORDER**

This Miscellaneous Petition came up for final hearing on 05-03-2024 in the presence of Tvl. N.Kumanan, Standing Counsel for the Petitioner and on consideration of the submission made by the Counsel for the Petitioner, this Commission passes the following:

## **Prayer of the Petitioner in the Original Petition and in the Additional Affidavit filed:**

This Miscellaneous Petition stands preferred by the Petitioner TANGEDCO with a prayer to approve and ratify

1.1. For floating a medium term tender under FOO guidelines with the deviations proposed in the Bidding Documents for procurement of 1000 MW Power during peak hours (18 to 24 hrs) from Thermal power generating stations for the period of 5 years commencing from 01.09.2024.

1.2. For uploading the Corrigendum No 1 dt 22.12.2023 (Annexure 5) in the DEEP Portal for the additional deviations incorporated in the Model Bidding Documents considering the benefits to TANGEDCO

1.3. For uploading the Corrigendum No 2 dt 26.12.2023 (Annexure 6) in the DEEP Portal for the additional deviation incorporated in the Model Bidding Documents in order to get competitive offers.

1.4. For uploading the Corrigendum No 4 dt 20.01.2024 (Annexure 7) for the additional deviations incorporated in the Model Bidding Documents based on the Pre bid Queries.

1.5. For uploading the TANGEDCO Replies for queries raised by Generators (Annexure 8) during Pre bid meeting and email queries in the DEEP Portal on 20.01.2024.

## **2. Contentions of the Petitioner in the original petition**

2.1. The petitioner, Tamil Nadu Generation and Distribution Corporation Limited

(TANGEDCO), incorporated under the Companies Act, 1956, and the successor entity of erstwhile Tamil Nadu Electricity Board and engaged in the business of Generation, Distribution activities and a distribution licensee in the State of Tamil Nadu for distribution of electricity to various categories of consumers in the State of Tamil Nadu. The electricity so required has been availed from various sources such as its own generating stations, and purchase of power from various Central Generating Stations of its share, Independent Power Plants, Captive Power Plants, Wind generators, Co- generation plants, Bio mass plants, Merchant power plants, Power exchanges etc.

2.2. The petitioner stated that this Miscellaneous Petition is filed seeking approval from the Commission for proposed deviation from the Model Bidding Document and floating of Medium Term Tender for Procurement of power up to 1000 MW during peak hours (18-24 hrs) from the generators having thermal power generating stations for the period from 01.03.2024 to 29.02.2029 under FOO (Finance, Own, Operate) Guidelines. 3. It is stated by the petitioner that in Tamil Nadu, an all time high demand of 19387 MW and all-time high Consumption of 423.785 MU were met on 20.04.2023.

2.3. As per the MoP's Guidelines for Determination of Tariff by bidding Process for Procurement of power by Distribution Licensee, the demand forecast shall be based on the latest available Electric Power Survey published by the Central Electricity Authority. Based on the projection in 20th EPS Survey, demand and availability upto 2030 has been assessed and deficit projected without considering the renewable energy.

2.4. The workings of long term projection of peak demand, energy and peak availability

for the period from 2022-23 to 2029-30 as per the report dt 14.03.2023 have been furnished:

Year	Projecte d Availability during the period off wind lighting peak (in MW)	Projecte d Demand during the period off wind lighting peak (in MW)	Surplus / Deficit in MW	Expecte d Projects' Availability during the year
1	2	3	4	5
2023-24	14866	18725	-3859	664
2024-25	17191	19990	-2799	2422
2025-26	17849	21309	-3460	756
2026-27	19455	22629	-3174	1628
2027-28	19118	23958	-4840	0
2028-29	19551	25285	-5734	548
2029-30	18131	26739	-8608	628

2.5. The estimated capacity additions for the period from 2024 to 2030 in the ongoing projects considered as Ennore SEZ STPS, Udangudi stage I project, Kudankulam APS unit 3 are also getting delayed and expected to be commissioned and contribute to grid beyond the forecasted period. Hence the present proposal will help in managing the demand and supply position.

2.6. TANGEDCO is meeting the demand from the Installed Capacity of conventional sources of 14901 MW (TANGEDCO Thermal 4320 MW + GAS 220 MW + IPP 775 MW + CGS Share 6504 MW + LTA 2830 MW+MTOA 252 MW). Considering a PLF of 85%, the net availability will be 12665 MW. The demand projection for the FY 24-25 to FY 29-30 is based on the ongoing projects in Tamil Nadu State and Central share.

2.7. The Ministry of Power, through a Resolution dated 29.01.2019 had issued revised

guidelines and Model Bidding Documents (MBDs) for procurement of electricity for Medium Term from Power Stations set up on Finance, Own and Operate (FOO) basis under the provisions of Section 63 of the Electricity Act, 2003. Coal Linkage Allocation Policy for Power Sector known as "Scheme for Harnessing and Allocating Koyala (Coal) Transparently in India (SHAKTI Policy) was issued by the Ministry of Coal on 22.05.2017. Under the SHAKTI scheme, use of linkage coal has also been allowed in Medium Term Power procurement.

2.8. The TANGEDCO meets demand through TANGEDCO's own generating stations, Central Generating Stations and wind generation and through various power purchase agreements etc., which is not sufficient to meet the evening peak hour demand as the renewable energy source generation is not reliable throughout the day which ends up in deficit during evening peak hours. Hence to meet out the demand, the petitioner resorted to purchase power through Power Exchanges in Day Ahead Market, Real Time Market and Term Ahead Market.

2.9. The petitioner that During the peak hour period, price in the power market was high and moreover it fluctuates more depending on number of buyers and sellers and clearance of quantum of power is uncertain. In spite of placing bid for purchase of power at the maximum bidding price of Rs.10 per unit (effective from 04.04.2023) in the power exchange, TANGEDCO could get only 15% to 25% of the bid quantum block wise as buy bids were always more than double of the sell bids in some blocks indicating higher demand and lower supply. The demand pattern has changed in the year 2023 wherein the evening peak hour demand is always nearing 16000 MW except during rainy seasons and holidays.

2.10. The deficit in evening peak hour period is around 4000 MW and the demand is met out by purchasing power through power exchanges at the maximum exchange bidding price of Rs.10 per unit. Due to low clearance in the normal DAM, intraday purchase is resorted to avoid load shedding by purchasing power through High Price DAM at the rate of Rs.14 to Rs.20 per unit which increase the financial burden of the TANGEDCO.

2.11. Further the solar generation capacity addition has steadily increased and managing the demand during non-solar hours (i.e) from 18 to 24 Hrs has become a challenge with very fewer balancing resources. Hence, it is necessary to take action to tie up 1000 MW Peak Power from 18-24 hrs under medium term contract for a period of five years from 01.03.24 to 29.02.2029 in order to mitigate the less availability during the peak hour period.

2.12. In case of shortage of wind power, solar power and outages of plants, power purchase was made through exchange during peak hours 18 to 24 Hrs and required blocksto meet the peak demand. The average cost of purchase during the months from Jan'23 to Oct'23 was Rs.9.595 per unit and through long- and medium-term tender Power purchase agreements, the power purchase cost ranges from Rs.3.5601 to Rs.6.14 per unit for the month of Oct-23 which is less as compared to the power purchase cost in power exchanges.

2.13. Therefore, procurement of Thermal power during peak hours through tender process will be more economical than going in for purchase of peak power through Power Exchanges.

Hence, in order to reduce the additional expenditure burden to TANGEDCO, it is proposed to float a tender under medium term contract for procurement of power upto 1000

MW from Thermal stations during peak hours (18 to 24 Hrs) for a period of Five years from 01.03.2024 to 29.02.2029.

2.14. The reason for floating new tender is to meet out the above shortfall quantum, it is suggested that a medium term tender under FOO (Finance, Own, and Operate) guidelines is to be floated through DEEP e-bidding portal.

2.15. The abstract of Medium Term Contract (FOO) Guidelines as below:

a. Based on SHAKTI policy MoP issued revised Model Bidding Documents on 29.01.2019 which comprising Model Request for Qualification (MRFQ), Model Request for Proposal (MRFP) and Model Agreement for Procurement of Power (MAPP) to be adopted by distribution licensees through competitive bidding through an electronic platform (DEEP e-bidding Portal) and again amended on 12.05.2023.

b. This agreement for procurement of power for a period between one and five years.

c. The tariff determined through DEEP e bidding process using e- reverse Auction shall be adopted by appropriate Commission as per provision in Section 63 of Electricity Act.

As per para (4) of the guidelines issued by Ministry of Power dated 30.01.2019, any deviation from the Model Bidding documents shall be made only with the prior approval of the appropriate Commission.

d. Provided, however, that any specific modifications expressly permitted in the Model Bidding Documents shall not be construed as deviations from the Model Bidding Documents.

The copy of the amendments in the Revised model agreement for procurement of power under medium term on FOO basis vide Ministry of Power letter dated 12.05.2023 and revised model agreement for procurement of power under medium term on FOO basis issued by Ministry of Power letter on 19.12.2022 is furnished.

2.14. The salient features of (Finance, Own and Operate) FOO guidelines after incorporating deviations to be sought by TANGEDCO from the Model Bidding Document.

- a. The procurement Contract period is for 5 years  
Contracted Capacity is 1000 MW @ Delivery Point (Peak Hour power)
- b. Delivery Point means any point in the ISTS delivering through Dedicated Transmission line.
- c. Normative Availability @ 85% of the contracted capacity during each contract year  
If availability is less than 85%, Damages @  $0.25 * FC * (NA - AA) * \text{contracted capacity}$
- d. Obtaining Open Access from power station to Delivery point is the responsibility of the supplier.
- e. Due date for payment of monthly energy bill is 30 days from the receipt of invoice.
- f. Discount for early payment :from 1.5% to 1%.
- g. Late payment surcharge as per MoP guidelines as amended from time to time.
- h. Payment Security is Standby Letter of Credit with an amount equal to monthly payment
- i. Cost of bidding process Rs. 60,000 per 100 MW plus applicable taxes  
Bid Security of Rs.5,00,000 (Rupees five lakh) per MW



j. Performance Security @ Rs.8,00,000 (Rupees Eight lakh) per MW if contracted capacity is more than 1000 MW, @ Rs.15,00,000 (Rupees fifteen lakh) per MW if contracted capacity is less than 500 MW, @ Rs 10,00,000 (Rupees ten lakh)/MW if the contracted capacity is between 500 MW and 1000 MW valid for the entire contract period.

Change in Law shall be computed in accordance with procedure provided in the applicable rules issued by MoP.

k. If the utility does not schedule the full or part of contracted capacity, supplier may sell the same through the Power exchange in line with applicable rules issued by MoP as amended from time to time.

l. Termination for default by Utility Failure to make payment to the Generator and unable to recover through Standby Letter of Credit within specified time period in this Agreement

m. Termination for default by Generator - In breach of Agreement sale of power to Third party and fails to pay damages. Fails to achieve monthly availability of 70% for a period of 4 consecutive months or for a cumulative period of four months within any continuous period of (12) months except for Force Majeure condition.

Force Majeure

n. Nonpolitical event-act of God, lightning, earth quake cyclone, flood, volcanic eruption, fire etc

o. Indirect political event act of war, invasion, armed conflict or act of foreign enemy etc

p. Political event change in law, compulsory acquisition in national interest, unlawful or unauthorized or without jurisdiction revocationof, or refusal to renew or grant without valid cause, any clearance, license, permit, consent, approval etc..

Relief for Unforeseen Events:

q. Upon occurrence of an Unforeseen Event, the relief is to be determined by conciliation tribunal consisting of Judges.

Conditions Precedent:

r. Time limit for utility:-

a. for completion of condition precedent (30 days after receipt of Performance Security +90 days)

b. Utility shall provide unconditional Standby Letter of Credit (LC) and get the approval from TNERC for payment of tariff.

s. Time limit for Supplier-for completion of condition precedent (90 days from agreement date+90 days)

t. Generator shall provide

a. Performance Security

b. To submit the capacity certificate and evidence of the capacity of the Power station.

c. Fuel Supply Agreement

d. Procure access to the Transmission System

u. Failure to fulfill the conditions precedent by the utility, damages @0.5% of

Performance Security for each day of delay subject to the maximum of Performance Security.

v. Failure to fulfill the conditions precedent by the Generator, damages @0.5% of Performance Security for each day of delay subject to the maximum amount equal to Bid Security.

#### Termination

w. Termination for supplier default:-Non commencement of supply within 120 days from the date of agreement, the agreement is deemed to be terminated by mutual agreement and utility can encash the Performance Security as damages in addition to termination payment of 6 months of Fixed charges/@ 85% availability.

x. Termination for Utility Default: Failure to make payment by the Utility- Damage of payment of Fixed charge @ 85% availability for a period of 6months.

2.15. They prepared a bid document on the basis of Revised Guidelines and Model Bidding Documents comprising the Model RFQ, Model RFP and Model Agreement for procurement of power under Medium Term on Finance, own and operate (FOO) basis issued by Ministry of Power on 29-01-2019 and also revised Model agreements for procurement of power (APP) under MT on FOO Basis issued on 19-12.2022.The petitioner intended to make certain deviations to APP to ensure commercial clarity with respect to provisions in the Agreement, to safe guard the interest of the petitioner and to avoid cost implication on TANGEDCO and the details of deviations /modifications proposed in the Model Bidding

documents are furnished.

2.16. The Board of TANGEDCO in its 118th Meeting held on 18.11.23 has accorded approval for the proposal for floating Medium Term Tender for procurement of 1000 MW during peak hours (18-24 hrs) from Thermal power generating stations for the period from 01.01.2024 to 31.12.2028 under FOO (Finance, Own, Operate) Guidelines. However, it is proposed the contract period for 5 years from 01.03.2024 to 29.02.2029.

2.17. The floating of medium term tender is as per the MoP FOO (Finance, Own and Operate) guidelines through transparent competitive bidding process and approval of Hon'ble State Commission has to be obtained under Section 63 of Electricity Act 2003.

### **3. The petitioner contention in the Additional Affidavit**

3.1. The tender has been uploaded in the DEEP Portal on 21.12.2023 with opening of Application on 24.01.2024.

(a) Resource Adequacy exercise is covered under the scope of Technical studies in the Organizational Transformation study of Tamilnadu Power Sector and the Consultant, M/s E & Y has been engaged as the Consultant and the final study report is awaiting from them.

(b) Planning wing is providing data as required by the CEA for Resource Adequacy Study and final report of Tamilnadu is awaiting from the CEA.

3.2. The copy of the report along with the approved long term projection of Peak demand, energy and availability for the period from 2022-23 to 2029- 2030 worked out with 2021-22 as base year has been furnished in the Annexure 3.

3.3. The anticipated demand is arrived from the actual demand for the respective period and considering the growth rate of 5% to 10% depending on the months. In the projected availability, the generation from Hydro, thermal, CGS, LTOA, MTOA, Gas is taken from the LGBR data provided for the year 2024-25. The wind and solar generation is taken from the previous year data. The deficit/Surplus is arrived based on the projected availability and demand. The actual availability and deficit/surplus may vary in real time depending on the various factors. The copy of the UO dt 23.01.24 along with demand forecasted and projected availability for the period from February 24 to March 24 and for the year 24-25 is furnished in Annexure 4.

3.4. Considering the benefits to the TANGEDCO, the Corrigendum No 1 dt 22.12.2023 for the deviations in the existing Clause/ Article in the Standard bidding Document has been issued on 22.12.2023.

(1) RFQ - Clause 2.2.2 - (A) Technical Capacity

As per the MBD, the Bidder shall own and operate power generating station having an installed capacity equivalent to atleast twice the capacity for which the Bidder is willing to bid.

3.5. In order to get competitive offers and as already adopted in previous FOO tender, TANGEDCO has proposed to stipulate that "the Bidder shall own and operate Thermal power generating station having an installed capacity atleast equivalent to the capacity for which the Bidder is willing to bid".

(2) Agreement for Procurement of Power (APP)-

Article 5.5- Obligations relating to SLDC and RLDC charges:

In order to get the supply early and to meet out the increasing demand and as already adopted in the previous FOO tender, the following Para is additionally included as Article 5.5.2 in MBD.

5.5.2. In the interim period till MTOA becomes operational, the Utility shall have the right to schedule power on Short Term Open Access (STOA) basis. In that case, the Utility shall obtain the STOA and shall be liable for payment of all charges, due and payable under Applicable Laws in respect of STOA including Application Fee, SLDC, RLDC charges etc.

(3) Agreement for Procurement of Power (APP)- Article 11.4.3.

As per MBD, "In the event that any shortfall in supply of electricity to the Utility occurs on account of deficiency in intra state transmission system in accordance with the provision of Clause 5.3, Availability shall be deemed to be reduced in accordance with the provisions of Clause 11.5.2 and the Non-Availability arising as a consequence thereof shall, for the purposes of payment of Fixed Charge, be deemed to be Availability to the extent of 50% (fifty per cent) of the Non- Availability hereunder.

3.6. Considering the benefits to TANGEDCO and as already adopted in previous FOO tender, it has been proposed to stipulate as follows:

"In the event that any shortfall in supply of electricity to the Utility occurs on account of deficiency in intra state transmission system, Availability shall be deemed to be reduced in accordance with the provisions of Clause 11.5.2 and the Utility shall not be liable for payment of any Fixed Charge for the Non-Availability arising as a consequence thereof.

(4) Agreement for Procurement of Power (APP)-Article 11.8 Taxes and Duties- 11.8.2

As per MBD,.

"The Tariff payable by the Utility under this Article 11 shall be exclusive of Goods and Service Tax, Electricity Duty, Value Added Tax or Goods and Service Tax, Custom Duty on Fuel or any replacement thereof, if applicable

3.7. As already adopted in the previous tender and for the benefit of TANGEDCO, it has been proposed to stipulate that "The Tariff payable by the Utility under this Article 11 shall be inclusive of of Goods and Service Tax, Electricity Duty, Value Added Tax or Goods and Service Tax, Custom Duty on Fuel or any replacement thereof, if applicable

The Corrigendum No 1 dt 22.12.2023 is enclosed as Annexure 5.

5. The petitioner stated that in order to get competitive offers, the Corrigendum No 2 for the deviations in the existing Clause in the RFQ - Standard bidding Document has been issued on 26.12.2023

(1) RFQ-Clause 1.1.5.

As per MBD, the Bidder may bid for the capacity specified in the Clause 1.1.1, or a part thereof, not being less than 50% of such capacity or 100 MW whichever is less.

In order to get competitive offers, TANGEDCO has proposed to stipulate the minimum bid capacity as 50 MW. The Corrigendum No 2 dt 26.12.2023 is enclosed as Annexure 6.

3.6. The petitioner stated that the pre bid meeting for the above tender was held on 08.01.2024 to clarify the queries/doubts raised in the Model Bidding Document (MBD) with

the generators.

(a) M/s OPG Power Generation Ltd., Gummidipcondi has attended the Pre bid meeting and raised various queries. TANGEDCO had clarified the queries/doubts raised by the generator.

(b) M/s Jindal Power Ltd., and M/s PTC India has raised queries through e-mail.

3.7. TANGEDCO has proposed the following deviations in the tender documents based on the Pre bid queries.

1. RFQ 1.1.1. Commencement of supply

As per Tender document, the supply commencement date is 01.03.2024. As TANGEDCO had already tied up STOA tenders, LDC and SWAP arrangements for the month of March 2024 to May 2024 (Peak Hour power availability March 2024-2849 MW, April 2024-3075 MW and May 2024-1991 MW) and as the Parliamentary Elections is going to be held during April 24 and May 24 and all the State Discoms have tied up power upto June 2024, there is possibility that no offer will be received if the Supply commencement date is fixed as 01.03.2024. Hence, TANGEDCO has proposed to change the Supply commencement date as 01.09.2024 instead of 01.03.2024.

2. RFQ-2.2- Eligibility of Bidders Clause 2.2.1.(d)

As per MBD, the Power Station has access to an assured supply of fuel.

Considering the request of Generators during Pre Bid query, it has been proposed to stipulate that "the Power Station has access to an assured supply of fuel; An Undertaking or commitment letter for Firm fuel arrangement for supply of Power may be submitted by



bidders".

3. RFQ-Clause-2.12.2 Documents required to be uploaded:

As per MBD, a copy of Fuel Supply Agreement or equivalent arrangement for the Power station has to be uploaded.

However, in order to get competitive offers, it has been proposed to stipulate that "a copy of Fuel Supply Agreement or equivalent arrangement or Undertaking for assured supply of Fuel for the Power station, as applicable" has to be uploaded

The Corrigendum No 4 dt 20.01.2024 is enclosed as Annexure - 7

3.8. TANGEDCO has uploaded the reply to the queries raised in Pre bid meeting and clarifications through emails in the DEEP-e-PORTAL on 20.01.2024. The queries raised and TANGEDCO response is enclosed as Annexure-8

3.9. TANGEDCO has initially fixed the opening of Application as 24.01.2024 /14.30 Hrs and subsequently postponed to 31.01.2024/14.30 Hrs due to lead time required to upload the Reply to Queries raised in the Pre bid Meeting and e-mail Queries. The Corrigendum No 3 dt dt 12.1.2024 is enclosed as Annexure 9

3.10. Based on the request of Firms in order to get necessary approvals and to get Audit certificate and in order to get competitive offers, TANGEDCO has postponed the opening of Application date from 31.01.2024/14.30 Hrs to 15.02.2024/14.30 Hrs.

The Corrigendum No 6 dt dt 30.01.2024 is enclosed as Annexure 10

#### 4. Findings of the Commission:

4.1. The Commission has carefully gone through the oral submissions and submissions made in the petition and the additional affidavit filed by the Petitioner TANGEDCO.

4.2. The petition has been filed with a prayer to approve to float a medium term tender under FOO guidelines with the deviations proposed in the Bidding Documents for procurement of 1000 MW Power during peak hours (18-24 hrs) from Thermal power generating stations for the period from 01.03.2024 to 29.02.2029. The petitioner also seeks approval for proposed deviation from the Model Bidding Document and floating of Medium Term Tender for Procurement of power.

4.3. As per the MoP's Guidelines for Determination of Tariff by bidding Process for Procurement of power by Distribution Licensee, the demand forecast shall be based on the latest available Electric Power Survey published by the Central Electricity Authority. Based on the projection in 20th EPS Survey, demand and availability upto 2030 has been assessed and deficit projected without considering the renewable energy. The workings of long term projection of peak demand, energy and peak availability for the period from 2022-23 to 2029-30 as per the report dt.14.03.2023 has been detailed below:

Year	Projected Availability during the period off wind lighting peak (in MW)	Projected Demand during the period off wind lighting peak (in MW)	Surplus / Deficit in MW	Expected Projects' Availability during the year
1	2	3	4	5
2023-24	14866	18725	-3859	664
2024-25	17191	19990	-2799	2422

2025-26	17849	21309	-3460	756
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2027-28	19118	23958	-4840	0
2028-29	19551	25285	-5734	548
2029-30	18131	26739	-8608	628

The petitioner also stated that the ongoing projects Ennore SEZ STPS, Udangudi stage I project, Kudankulam APS unit 3 considered in the estimated capacity additions for the period from 2024 to 2030, are getting delayed and expected to be commissioned beyond the forecasted period. Hence the present proposal will help in managing the demand and supply position.

4.4. In Tamil Nadu State, an all time high demand of 19387 MW and all-time high Consumption of 423.785 MU was met on 20.04.2023. It is also stated that TANGEDCO is meeting the demand from the Installed Capacity of conventional sources of 14901 MW (TANGEDCO Thermal 4320 MW + GAS 220 MW + IPP 775 MW + CGS Share 6504 MW + LTA 2830 MW+MTOA 252 MW). Considering a PLF of 85%, the net availability will be 12665 MW.

4.5. The power generation and procurement through TANGEDCO's own generating stations, Central Generating Stations and wind generation and through various power purchase agreements etc., was not sufficient to meet the evening peak hour demand, as the renewable energy source generation was not reliable throughout the day. Hence to meet out the demand, the petitioner had to resort to purchase of power through Power Exchanges in

Day Ahead Market, Real Time Market and Term Ahead Market.

4.6. During the peak hour period, the prices in the power market are always high. In spite of placing bid for purchase of power at the maximum bidding price of Rs.10 per unit in the power exchange, the petitioner could get only 15% to 25% of the bid quantum block wise as buy bids were always more than double of the sell bids in some blocks indicating higher demand and lower supply. The demand pattern has changed in the year 2023 wherein the evening peak hour demand is always nearing 16000 MW except during rainy seasons and holidays.

4.7. Deficit in evening peak hour period is consistently around 4000 MW. Due to low clearance in the normal DAM, intraday purchase is resorted to avoid load shedding by purchasing power through High Price DAM at the rate of Rs.14 to Rs.20 per unit which increase the financial burden of the TANGEDCO. Though the solar generation capacity addition has steadily increased, managing the demand during non-solar hours (i.e.) from 18 to 24 Hrs has become a challenge with very fewer balancing resources. Hence, it has become absolutely necessary to take action to tie up 1000 MW Peak Power from 18 to 24 hrs under medium term contract for a period of five years from 01.03.24 to 29.02.2029 in order to manage the deficit during the peak hour period.

4.8. The average cost of power purchase through exchange during the months from Jan'23 to Oct'23 was Rs.9.595 per unit. But through long- and medium-term tender Power purchase agreements, the power purchase cost ranges from Rs.3.5601 to Rs.6.14 per unit for the month of Oct-23. Therefore, procurement of Thermal power during peak hours

through tender process would be more economical than going in for purchase of peak power through Power Exchanges. Hence, it has been proposed to float, through DEEP e-bidding portal, a tender under medium term contract for procurement of power upto 1000 MW from Thermal stations during peak hours (18 to 24 Hrs) for a period of Five years from 01.03.2024 to 29.02.2029.

4.9. The Ministry of Power, through a Resolution dated 29.01.2019 had issued revised guidelines and Model Bidding Documents (MBDs) for procurement of electricity for Medium Term from Power Stations set up on Finance, Own and Operate (FOO) basis under the provisions of Section 63 of the Electricity Act, 2003. Coal Linkage Allocation Policy for Power Sector known as "Scheme for Harnessing and Allocating Koyala (Coal) Transparently in India (SHAKTI Policy) was issued by the Ministry of Coal on 22.05.2017. Under the SHAKTI scheme, use of linkage coal has also been allowed in Medium Term Power procurement.

4.10. Abstract of Medium Term Contract (FOO) Guidelines as follows:

- a. Based on SHAKTI policy MoP issued revised Model Bidding Documents on 29.01.2019 which comprising Model Request for Qualification (MRFQ), Model Request for Proposal (MRFP) and Model Agreement for Procurement of Power (MAPP) to be adopted by distribution licensees through competitive bidding through an electronic platform (DEEP e-bidding Portal) and again amended on 12.05.2023.
- b. The agreement for procurement of power for a period between one and five years.
- c. The tariff determined through DEEP e bidding process using e- reverse Auction shall

be adopted by appropriate Commission as per provision in Section 63 of Electricity Act.

As per para (4) of the guidelines issued by Ministry of Power dated 30.01.2019, any deviation from the Model Bidding documents shall be made only with the prior approval of the appropriate Commission.

d. Provided, however, that any specific modifications expressly permitted in the Model Bidding Documents shall not be construed as deviations from the Model Bidding Documents.

4.11. The petitioner listed, in the petition, the salient features of (Finance, Own and Operate) FOO guidelines after incorporating deviations to be sought by TANGEDCO from the Model Bidding Document.

4.12. The Board of TANGEDCO in its 118th Meeting held on 18.11.23 has accorded approval for the proposal for floating Medium Term Tender for procurement of 1000 MW during peak hours (18-24 hrs) from Thermal power generating stations for the period from 01.01.2024 to 31.12.2028 under FOO (Finance, Own, Operate) Guidelines. However, it is proposed the contract period for 5 years from 01.03.2024 to 29.02.2029. And TANGEDCO proposed further change to the supply commencement date as 01-09-2024, vide its Corrigendum-4 dated 20.01.2024.

4.13. TANGEDCO has prepared a bid document on the basis of Revised Guidelines and Model Bidding Documents comprising the Model RFQ, Model RFP and Model Agreement for procurement of power under Medium Term on Finance, own and operate (FOO) basis issued by Ministry of Power on 29-01-2019 and the revised Model agreements for

procurement of power (APP) under MT on FOO Basis issued on 19-12.2022.TANGEDCO intended to make certain deviations to APP to ensure commercial clarity with respect to provisions in the Agreement, to safe guard the interest of TANGEDCO and to avoid cost implication on TANGEDCO as per the Annexure-II to the petition.

4.14. Floating of medium term tender is as per the MoP FOO (Finance, Own and Operate) guidelines through transparent competitive bidding process and approval of the State Commission has to be obtained under Section 63 of Electricity Act 2003.

4.15. The petitioner has also filed an additional affidavit enclosing Annexure 3 to Annexure 8.

1. (a) Resource Adequacy exercise is covered under the scope of Technical studies in the Organizational Transformation study of Tamilnadu Power Sector and the Consultant, M/s E & Y has been engaged as the Consultant and the final study report is awaited from them.(b) Planning wing is providing data as required by the CEA for Resource Adequacy Study and final report of Tamilnadu is awaited from the CEA.

A report on long term projection of Peak demand, energy and availability for the period from 2022-23 to 2029- 2030 worked out with 2021-22 as base year is furnished.

4.16. The anticipated demand has been arrived from the actual demand for the respective period and considering the growth rate of 5% to 10% depending on the months. In the projected availability, the generation from Hydro, thermal, CGS, LTOA, MTOA, Gas has been taken from the LGBR data provided for the year 2024-25. The wind

and solar generation has been taken from the previous year data. The deficit/Surplus has been arrived based on the projected availability and demand. The actual availability and deficit/surplus may vary in real time depending on the various factors. The demand forecasted and projected availability for the period from February 24 to March 24 and for the year 24-25 has been furnished.

4.17. Considering the benefits to the TANGEDCO and to get competitive offers and based on the pre-bid queries, appropriate changes have been proposed and the Corrigendum No 1 dt 22.12.2023 for the deviations in the existing Clause/ Article in the Standard bidding Document was issued on 22.12.2023 enclosed as Annexure 5. The Corrigendum No 2 dt 26.12.2023 is enclosed as Annexure 6. The Corrigendum No 4 dt 20.01.2024 is furnished.

4.18. As per Tender document, the supply commencement date is 01.03.2024. As TANGEDCO had already tied up STOA tenders, LDC and SWAP arrangements for the month of March 2024 to May 2024 (Peak Hour power availability March 2024-2849 MW, April 2024-3075 MW and May 2024-1991 MW) and in view of the Parliamentary Elections held during April 24 and May 24 and all the State Discoms have tied up power upto June 2024, the possibility of not getting the offer had been expected, if the Supply commencement date were to be fixed as 01.03.2024. Hence, TANGEDCO has proposed to change the Supply commencement date as 01.09.2024 instead of 01.03.2024.

4.19. The Commission has taken into account all the facts stated in the petition and in



the additional affidavit along with annexures. It is seen from the future pattern of demand as projected by the petitioner that the estimated demand deficit for the evening peak hours is well above 1000 MW barring few days in patches. In view of the above deliberations and taking into account of the statistics, projections and compelling need to tie up for power through MTOA during peak hours, this Commission finds it fit to accord approval and ratify the following:

1. For floating a medium term tender under FOO guidelines with the deviations proposed in the Bidding Documents for procurement of 1000 MW Power during peak hours (18-24 hrs) from Thermal power generating stations for the period of 5 years commencing from 01.09.2024.
2. For uploading the Corrigendum No 1 dt 22.12.2023, Corrigendum No 2 dt 26.12.2023, Corrigendum No 4 dt 20.01.2024 in the DEEP Portal for the additional deviations incorporated in the Model Bidding Documents considering the benefits to TANGEDCO, to get competitive offers and based on the Pre bid Queries as furnished in the Annexures to the main petition and the additional affidavit.
3. For uploading the TANGEDCO replies for the queries raised by Generators during Pre bid meeting and email queries in the DEEP Portal on 20.01.2024.
4. It is directed that the projects in the pipeline shall be speeded up with vigorous follow up.

Commission further suggests the following:

1. The bidding offered in the past for meagre quantity may be processed along with fresh tender to be initiated.
2. In view of the poor response for the bidding exclusively for evening peaks, bidding may be called for the extended hours from 04.00 PM to 02.00 AM in accordance with the hourly requirement for the subject period of five years with assured off take of 6 hours with a condition that entire hours will also be availed if required by the licensee from Gas / Hydro based power stations.
3. The licensee shall call for tender from Gas based plants for extended hours coupled with peak hours with a provision that buying of power during off peak hours with an option to supply power as and when required by the TNPDC and to sell the power to other entities when not required by the TNPDC with other mutually agreed terms.
4. This Commission observed that there is a poor response from Generators and Traders for peak hour tender as they are interested in RTC supply or to supply Technical minimum of contracted quantum in non-peak hours and 100% quantum in peak hours. Hence, Bidding can be called for RTC power to the level of Technical minimum of the plant (ranging from 40% to 55% of rated capacity) irrespective of fuel sources (ie., coal, Gas, Hydro, etc.) and with a rider to supply balance capacity during peak hours, so as to bring the price lesser than DAM price

of peak hour.

5. The Licensee shall ensure that surplus power available by virtue of such purchase be sold in the RTM on regular basis without setting any price limit so as to bring down the average cost of power purchase during non-solar hours.
6. Similarly tenders can be called for from developers of BESS on BOOT method by supplying power to the developers during surplus period and by discharging during the peak period.
7. The bidding from Gas power Stations, Hydro Power Stations may also be explored to widen the avenue for better response from bidders.
8. A software may be created by outsourcing with customized pattern of demand requirement for TNPDC/ TANGEDCO in compliance of RA principles.

Ordered accordingly.

(Sd.....)  
Member (Legal)

(Sd.....)  
Member

(Sd.....)  
Chairman

/True Copy /

**Secretary**  
**Tamil Nadu Electricity**  
**Regulatory Commission**