

TAMIL NADU ELECTRICITY REGULATORY COMMISSION

Order of the Commission dated this the 22nd Day of October 2026

PRESENT:

Dr.J.Radhakrishnan

.... Chairman

Thiru A.R. Mascurnas

.... Member

and

Tmt A.Muthusaratha

.... Member (Legal)

M.P. No. 21 of 2026

Tamil Nadu Power Distribution Corporation Ltd.

Represented by its Chief Engineer/Private Power Projects

144, Anna Salai,

Chennai – 600 002.

..... Petitioner

(Adv.Ashwini Vaidialingam

Standing Counsel for TNPDC)

This Miscellaneous Petition having come up for final hearing on 13-10-2026 in the presence of Adv.Ashwini Vaidialingam , Standing Counsel for the Petitioner and on consideration of the submission made by the Counsel for the Petitioner, this Commission passes the following:

ORDER

1. Contentions of the Petitioner:-

1.1. The Tamil Nadu Power Distribution Corporation Limited (TNPDC) is filing this Miscellaneous Petition as we are bifurcated from TANGEDCO as per G.O (Ms). No. 6 Energy (B2) Department dated 24.01.2024 & G.O.(Ms) No.7 dated 24.01.2024 of the

Energy Department, Govt. of Tamil Nadu.

1.2. The Solar Energy Corporation of India Limited (SECI), a Navratna, Government of India Enterprise, under the administrative control of Ministry of New & Renewable Energy (MNRE), has submitted proposal for supply of 1200 MW Solar Power with 600 MW/3600 MWh Energy Storage Systems (ESS) under ISTS connected Tranche XXI Scheme through tariff based competitive bidding for the period 25 years, to meet the peak power requirements of Tamil Nadu. Buying Entity shall receive 600 MW solar power from Solar PV project during Solar hours and 300 MW/1800 MWh during peak hours (18.00 Hrs to 09.00 Hrs of the sub-sequent day- for six hours)) with Energy Storage Systems (ESS).

1.3. The proposals are in accordance with the Ministry of Power guidelines for procurement of Firm and Dispatchable Power from Grid Connected Renewable Energy Power Projects with Energy Storage Systems through Tariff Based Competitive Bidding (TBCB) under Section 63 of the Electricity Act, 2003. It is respectively submitted that as per the offer by SECI, Renewable Energy Project Developer (RPD) is mandated to supply 1800MWh energy from the project in selected 6 hours during peak hours against the contracted capacity of 600 MW. The Peak Hours of a day shall commence from 06:00 PM of a day and

continue until 09:00 AM' of the subsequent day. Also, it is submitted that as Buying Entity, this Petitioner may choose 6 hours in the peak hours during which it intends to draw the energy from the project on daily basis. Buying Entity shall choose the 6 hours such that there is a continuous supply of 1 hour.

1.4. In line with the above, Board of Tamil Nadu Power Distribution Company Limited (TNPDC) vide its the 135th Board Meeting held on 24.02.2026, the Board has approved the procurement of 600 MW Solar power with 300 MW/1800 MWh Energy Storage Systems (ESS) under the ISTS connected Tranche XXI Scheme from M/s. Solar Energy Corporation of India as per the following capacity:

Type	Capacity	Discovered Tariff	Expected date of commissioning
Solar PV + ESS	600 MW Solar Power with 300 MW/1800 MWh	Rs.3.12/KWh*	24 months from effective date of PPA

*SECI trading margin of Rs 0.07/KWh shall be applicable over and above discovered tariff.

1.4. The proposed allocation of 600 MW Solar Power with 300 MW/1800 MWh Energy Storage Systems (ESS) to TNPDC is duly justified considering Tamil Nadu's continuous growth in power demand, particularly during evening and early morning peak hours, and the State's projected peak demand trajectory. To ensure grid stability and to meet renewable

energy targets, the State requires procurement of firm, dispatchable, and storage-backed renewable power to supplement the existing wind and solar capacity. The SECI proposal aligns with the State's Renewable Purchase Obligation (RPO) trajectory and TNERC (RPO) Regulations, contributing to enhanced grid reliability, cost-effective energy procurement, and de-carbonization of the power mix. The said quantum of 600 MW has been assessed keeping in view resource adequacy obligations, RPO targets, and the requirement of firm renewable capacity to strengthen the State's renewable portfolio. This procurement will also help reduce the dependence on costly short-term and thermal-based power purchases during peak demand periods. Overall, the 600 MW Solar Power with 300 MW/1800 MWh ESS is expected to provide a balanced mix of generation that will enhance grid reliability, ensure peak power supply, and support the State's transition towards a sustainable and dispatchable renewable energy mix.

1.5. The implementation of the Solar PV project with Energy Storage Systems aligns with the national objectives of achieving 500 GW of non-fossil capacity by 2030 and supports Tamil Nadu's commitment to promoting sustainable, reliable, and low-carbon energy systems. The addition of this 600 MW Solar Power with 300 MW/1800 MWh ESS will therefore play a significant role in maintaining the State's leadership position in renewable energy deployment.

1.6. The increasing penetration of Renewable Energy (RE) in the State's energy mix, there is a growing need to address the challenges of intermittency and grid stability. Solar projects backed with Energy Storage Systems will play a vital role in supporting Grid stability particularly during the peak demand hours and in reducing the dependence on conventional thermal generation. The dispatchable nature of the storage-backed renewable power will assist TNPDCCL in meeting its Resource Adequacy obligations as prescribed under the Electricity (Amendment) Rules, 2022, by ensuring availability of power to meet both energy and capacity requirement on a long-term basis.

1.7. As per Rule 16 of the Electricity (Amendment) Rules 2022, the Ministry of Power has notified Resource Adequacy guidelines. As per the Resource Adequacy guidelines, the Central Electricity Authority (CEA) is entrusted to Long Term National Resource Adequacy Plan. The Distribution Licensee has to carry out Long Term Distribution Licensee Resource Adequacy Plan (LT-DRAP) to meet utility peak and energy requirement. As per the Resource Adequacy guidelines, each Distribution Licensee has to undertake a Resource Adequacy Plan for a 10 year horizon to meet the peak and energy requirement and the plan should be vetted/validated by the Central Electricity Authority.

1.8. Accordingly Resource Adequacy (RA) studies have been carried out for the State of Tamil Nadu by CEA based on data furnished by TNPDCCL and communicated by CEA on

20.1.2025. As per the Central Electricity Authority's Resource Adequacy plan for the State of Tamil Nadu, the peak demand and energy projections of TNPDCCL are as below:

a) Peak demand

Financial year (FY)	Peak demand	YoY growth	Financial year (FY)	Peak demand projections	YoY growth
2024-25	20701	6.7%	2029-30	27541	5.7%
2025-26	21959	6.1%	2030-31	29027	5.4%
2026-27	23314	6.2%	2031-32	30567	5.3%
2027-28	24680	5.9%	2032-33	32159	5.2%
2028-29	26046	5.5%	2033-34	33805	5.1%
			2034-35	35507	5.0%

b) Energy Projections

Financial Year (FY)	Energy projections (MU)	YoY growth in %
2024-25	142441	9.4
2025-26	152678	7.2
2026-27	162726	6.6
2027-28	172679	6.1
2028-29	182401	5.6
2029-30	193232	5.9
2030-31	203598	5.4
2031-32	214582	5.4
2032-33	225898	5.3
2033-34	237559	5.2
2034-35	249580	5.1

1.9. The peak demand projections as per the 20th EPS (Electric Power Survey) are as follows:

Financial year (FY)	Peak demand projections	Financial year (FY)	Peak demand projections (MW)
2024-25	19413	2028-29	24276
2025-26	20545	2029-30	25764
2026-27	21736	2030-31	27033
2027-28	22976	2031-32	28291

1.10. The year wise capacity projections as per the CEA's RA plan is as follows:

FY	Coal	Gas	Nuclear	Bio mass	Hydro	Wind	Solar	Solar DRE	Hydro DRE	Storage	STOA
2024/25	15291	739	1906	891	1864	10015	12496	1614	58	400	3274
2025/26	15141	739	1906	966	1884	11015	14796	2457	58	900	3996
2026/27	16461	739	3006	966	1884	12015	16796	3391	58	2441	2580
2027/28	16923	739	3006	966	1884	13015	18996	4419	58	4344	2674
2028/29	17588	739	1828	966	1884	14015	21496	5533	58	5581	3310
2029/30	18380	739	2828	966	1884	16515	24296	6778	58	7581	2408
2030/31	19380	739	2828	966	1884	18015	25796	7947	58	8581	2780
2031/32	20380	408	2828	966	1884	19515	27296	9224	58	9581	2855
2032/33	21380	408	2828	966	1884	21015	28796	10603	58	10581	2184
2033/34	22130	408	2828	966	1884	22515	30296	12089	58	12581	2084
2034/35	22497	408	2828	966	1884	24015	31796	13687	58	13581	2799

1.10. The demand of the State is met by the conventional sources of power and Renewable Energy sources. Hon'ble TNERC in the Resource Adequacy regulations has prescribed guidelines for the procurement of various mix of sources. Regulation 14 of the TNERC's Resource Adequacy regulations state that,

“ The distribution licensee in its power procurement strategy shall identify an optimal procurement generation resource mix that shall enable smooth RE integration in its portfolio of power procurement resource options while meeting reliability standards.

The power capacity procurement from renewable energy sources for fulfilling the RPO targets shall be carried out as per Tamil Nadu Electricity Regulatory Commission (Renewable Energy Purchase Obligation) Regulations, 2023 and amendments thereof.

14.5. The power procurement from Wind, Solar PV, Wind Solar Hybrid, Round the Clock (RTC) generations shall be carried out as per the guidelines for tariff based competitive bidding process notified by the Ministry of Power.”

1.11. The TNERC in the Renewable Purchase obligations has notified the minimum percentage of RPO to be complied by Distribution Licensee as follows:

Sl. No .	Year	Wind Renewable Energy	Hydro Renewable Energy	Distribute Renewable Energy	Other Renewable Energy	Total Renewable Energy
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	2024-25	0.67%	0.38%	1.50%	27.35%	29.91%
2	2025-26	1.45%	1.22%	2.10%	28.24%	33.01%
3	2026-27	1.97%	1.34%	2.70%	29.94%	35.95%
4	2027-28	2.45%	1.42%	3.30%	31.64%	38.81%
5	2028-29	2.95%	1.42%	3.90%	33.10%	41.36%
6	2029-30	3.48%	1.33%	4.50%	34.02%	43.33%

1.12. The large-scale integration of RE energy in the Tamil Nadu grid, ramping up and ramping down thermal energy causes stress to the grid. To address these integration challenges, Firm Dispatchable Renewable Energy (FDRE) play a vital role in successfully integrating RE into the grid and assisting grid operators in managing fluctuations in demand and RE supply.

1.13. The peak demand comparison with 20th EPS survey till FY 2035 is as follows:

Particulars	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
TNPDCL Estimates (a)	19,972	21,581	23,174	24,978	25,970	27,092
EPS Estimates (b)	18,836	19,413	20,545	21,736	22,976	24,276
Actual Demand (c)	20830	20321	21307*			
Difference (a-b)			(2,629)	(3,242)	(2,994)	(2,816)

*So far during 2026-27

Particulars	FY 2026	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
TNPDCL Estimates (a)	28,327	29,764	31,292	32,961	34,707	36,645
EPS Estimates (b)	25,764	27,033	28,291	-	-	-
Actual Demand (c)						
Difference (a-b)	(2,563)	(2,731)	(3,001)			

1.14. The block wise average deficit analysis has been carried out by TNPDCCL for FY 2026-2027, FY 2027-2028, FY 2028–2029 and FY 2029-2030 and the details are shown in the Table below:

Average Deficit	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	FY 2034-35
Deficit 30% of the Blocks	4190 MW	3901 MW	4726 MW	6388 MW	10058 MW
Deficit 50% of the Blocks	2534 MW	2221 MW	3054 MW	4358 MW	7262 MW
Deficit 70% of the Blocks	1197 MW	941 MW	1487 MW	2484 MW	4068

1.15. The Year Wise Peak Hour Deficit analysis has been carried out from FY26-35 and the details are shown below:

Details	FY 2026-27	FY 2027-28	FY 2028-29	FY2029-30	FY2030-31
Peak Shortage (a)	9,735	8,750	10,898	12,888	11,964
3 rd Quartile (b)	4,893	4,168	5,810	7,440	7,602
Median (c)	3,239	2,413	4,239	5,647	6,091
MTOA Tender (Feb 2026) (d)	1,580	1,580	1,580	1,580	1,580
MTOA Tender (April 2026) (e)	618	618	618	618	618
PSP (April 2026) (f)	500	500	500	500	500 (upto 07.06.2030)
SECI FDRE (g) (Proposed)			270	270	270
SJVN FDRE Proposed (h)			700	700	700
BESS Tender 1(i)		500	500	500	500
BESS Tender 2 (j)			375	375	375

Solar + BESS Tender (k)			30	30	30
Median Deficit ((l = c – d – e – f – g – h – i – j – k)	541	-785	-334	1,074	1,518
3 rd Quartile Deficit (m = b – d – e – f – g – h – i – j – k)	2,195	970	1,237	2,867	3,029
Peak Deficit (n = a – d – e – f – g – h – i – j – k)	7,037	5,552	6,325	8,315	7,391

Details	FY 2031-32	FY 2032-33	FY 2033-34	FY 2034-35
Peak Shortage (a)	12,012	14,318	15,643	16,332
3 rd Quartile (b)	7,411	8,591	10,020	11,628
Median (c)	5,530	6,117	7,413	9,666
SECI FDRE (d)	270	270	270	270
SJVN FDRE (e)	700	700	700	700
BESS Tender 1(f)	500	500	500	500
BESS Tender 2 (g)	375	375	375	375
Solar + BESS Tender (h)	30	30	30	30
Peak Deficit (i = a – d – e – f – g – h)	10,137	12,443	13,768	14,457
3 rd Quartile Deficit (j = b – d – e – f – g)	5,536	6,716	8,145	9,753
Median Deficit (k = c – d – e – f – g – h)	3,655	4,242	5,538	7,791

1.16. The Year-wise Peak Hour Deficit analysis for FY 2026-27 to FY 2034-35 shows that TNPDCCL will continue to face peak shortages on a regular basis. Even after taking into account the capacities proposed through various planned procurements such as MTOA tenders, SECI FDRE, BESS tenders, and Solar + BESS tender, the deficit during peak hours still remains and, in fact, increases in the coming years. This clearly indicates that the

existing and proposed tie-ups are not adequate to reliably meet the State's peak hour demand. In this background, procurement of Solar Power through SECI's ISTS-connected 600 MW Solar Power with 300 MW/1800 MWh Energy Storage System is necessary to ensure firm and dependable supply during non-solar peak hours, reduce reliance on costly and uncertain short-term market purchases, and support TNPDCCL in meeting its Resource Adequacy requirements while maintaining reliable supply to consumers.

1.17. The observed trend of volatile and elevated prices in LDC, DAC, STOA, and DAM markets, reliance on short-term purchases during peak demand periods exposes the utility to financial risk. Procuring firm renewable power through SECI mitigates this risk by providing assured availability at a steady price, reducing dependency on thermal sources and expensive spot markets.

1.18. The long-term solution for RE integration shall be the adoption of FDRE, Energy Storage Systems. The Central and State Governments have been actively promoting the development of Firm Dispatchable Renewable Energy, Pumped Storage Plants and Battery Energy Storage Systems (BESS). FDRE is an ideal option for near-term integration of renewable energy.

1.19. A long-term tie-up for a period of 25 years is justified and appropriate in the present case, having regard to the long-term resource adequacy and renewable compliance

requirements of the State. The Resource Adequacy Plan of the Central Electricity Authority is itself based on long-term planning for ensuring reliable supply over the future planning horizon and specifically optimizes power procurement on a long-term basis. Further, the useful life / amortization period considered for solar and wind resources in the CEA framework is 25 years, which makes a long-term procurement tenure consistent with the underlying asset life and conducive to tariff stability. A 25-year tie-up would therefore provide long-term certainty of renewable and peak-supportive supply, support sustained compliance with the State's increasing RPO trajectory, and reduce dependence on uncertain short-term purchases.

1.20. The salient features of the tender are as below:

- a. Trading Margin: SECI shall be entitled to a trading margin of ₹0.07/kWh over and above the adopted tariff.
- b. PPA Tenure: 25 years from the date of commencement of supply.
- c. Delivery Point: Inter-State Transmission System (ISTS) substation.
- d. Penalty Clause:
 - i. Buying Entity shall receive power from Solar PV project in other than peak hours. Failure to supply power shall attract penalty of 1.5 times of PPA tariff on an annual basis.

ii. Failure to supply mandated energy in the peak hours shall attract penalty on monthly as well as annually as mentioned below:

(a) Non-compliance of minimum 70% monthly supply - penalty @1.5 times of PPA tariff

(b) Non-compliance of minimum 85% annually supply - penalty @1.5 times of PPA tariff

Highest of above mentioned (a) & (b) shall be applicable for the non-compliance during peak hour time.

Both penalties i.e. for shortfall in meeting minimum annual CUF requirement (for hours other than peak hours) & for shortfall in supply of energy during peak hours, shall be applicable separately

e. Availability: The Project Developer shall install 600 MW Solar Power project with Energy Storage Systems capacity of 300 MW / 1800 MWh. Buying Entity shall receive power from Solar PV project during solar hours and also in peak hours/ 6 Hrs.

- f. Peaking Hours: Peak Hours of a day shall commence from 06:00 PM of a day and continue until 09:00 AM of the subsequent day, out of which 6 hours shall be chosen by the Buying Entity.
- g. Expected Scheduled Commencement of Supply Date (SCSD): 24 months from the effective date of PPA.
- h. Mode of Selection: Tariff-Based Competitive Bidding under “BOO” model. Bidders will quote tariff in INR per kWh.
- i. Bid Processing Fee: Rs. 20,000/MW + applicable GST for the quoted capacity subject to a maximum amount of Rs. 20,00,000 + applicable GST, to be submitted through NEFT/RTGS transfer in the account of SECI, along with the response to RfS.
- j. Earnest Money Deposit (EMD): Amount: INR 15,93,000/- (Indian Rupees Fifteen Lakhs and Ninety-Three Thousand only) per MW per Project to be submitted in the form of Bank Guarantee/POI/Insurance Surety Bond along with the response to RfS.
- k. Bid Details: Selection of Solar Power Developers for Setting up of 1200 MW ISTS-connected Solar PV Power Projects with 600 MW/3600 MWh Energy

Storage Systems (ESS) in India under Tariff Based Competitive Bidding (SECI-ISTS-XXI).

A) Eligibility Criteria:

The Bidder shall be a Company as defined in the RfS. A foreign company can also participate on standalone basis or as a member of consortium at the RfS stage.

- A Bidding Consortium with one of the Companies as the Lead Member is also permitted. The Lead Member shall have a shareholding of not less than 51% in the Consortium.
- Proprietorships, Partnerships, Trusts, NGOs, and Limited Liability Partnerships (LLPs) are not eligible for participation on an individual basis or as a part of a Consortium.
- Consortium: In case of Consortium, each of the Consortium members shall have a non-zero equity participation in the Consortium and the Project Company incorporated shall have the same shareholding pattern as that indicated in the Consortium Agreement given at the time of submission of response to RfS.

B) Financial Eligibility Criteria:

- i) Minimum Net-Worth requirement = The Net Worth of the Bidder should be equal to or greater than INR 1,60,00,000/MW (Indian Rupees One Crore and Sixty Lakhs /MW) of the quoted capacity, as on the last date of previous Financial Year, i.e. FY 2024-25 or as on the day at least 7 days prior to the bid submission deadline.
- ii) In order to ascertain that the Bidder has sufficient means to manage the fund requirements for the Project, the Bidder shall be required to demonstrate at least one of the following parameters:
 - (i) A minimum annual turnover of INR 91,55,000/MW (Indian Rupees Ninety-One Lakhs and Fifty-Five Thousand/MW) of the quoted capacity during the previous financial year, 2024-25 or as on the day at least 7 days prior to the bid submission deadline.
 - (ii) Internal resource generation capability, in the form of Profit Before Depreciation Interest and Taxes (PBDIT) excluding other and exceptional income for a minimum amount of INR 18,31,000/MW (Indian Rupees Eighteen Lakhs Thirty-One Thousand/MW) of the quoted

capacity, as on the last date of previous FY, 2024-25, or as on the day at least 7 days prior to the bid submission deadline.

- (iii) In-Principle sanction letter from the lending institutions/ banks of the Bidder, committing a Line of Credit for a minimum amount of INR 22,88,750/MW (Indian Rupees Twenty-Two Lakhs Eighty-Eight Thousand Seven Hundred and Fifty/MW) of the quoted capacity, towards meeting the working capital requirement of the project quoted under this RfS. Such letter can also be obtained by the Affiliate(s) of the Bidder.

C) Changes in Shareholding:

- (i) In case the project being implemented by the bidder itself:

it shall ensure that its promoters shall not cede control (Control shall mean the ownership, directly or indirectly, of more than 50% of the voting shares of such Company or right to appoint majority Directors) of the Bidding Company/Consortium until 1 year after the SCSD, except with the prior approval of SECI.

- (ii) In case the project being implemented through SPV:

The Successful Bidder, if being a single company, shall ensure that its shareholding in the SPV/ Project Company executing the PPA shall not fall below 51% at any time prior to 1 year after SCSD, except with the prior approval of SECI. In the event the Successful Bidder is a consortium, then the combined shareholding of the consortium members in the SPV/ Project Company executing the PPA, shall not fall below 51% at any time prior to 1 year after SCSD, except with the prior approval of SECI. Further, the successful bidder shall ensure that its promoters shall not cede control of the bidding company till 1 (one) year from the SCSD, except with the prior approval of SECI.

- (iii) In the case of companies having multiple promoters (but none of the shareholders having more than 50% voting rights and paid-up share capital), it shall be considered as a company under joint control and the shareholding pattern in the company as submitted at the time of bidding, shall be maintained for a period of 1 year after SCSD.

Any change in the shareholding after the expiry of 1 year after SCSD can be undertaken under intimation to SECI.

- D) Selection Process:** e-Bidding shall be conducted under an open tender (Single Stage two Envelope system), followed by an e-reverse auction for qualified bidders.
- E) Financial Closure:** The Projects shall achieve Financial Closure by the date as on 6 months prior to the SCSD/ extended SCSD. (For e.g. if SCSD of the Project is 07.12.2027, then scheduled Financial Closure date shall be 07.06.2027).
- F) Payment Security Mechanism:** As part of the Payment Security Mechanism as brought out in the PPA, the SPD shall undertake to pay PSM Charges @ Rs.0.02/kWh to SECI, by offering a commensurate discount in the monthly tariff payment being made by SECI.

1.21. The SECI has issued a letter dated 19.02.2026 offering to sell power at the rate of INR 3.12/kWh + Rs.0.07 per unit as Trading Margin, which tariffs were discovered through e-RA conducted on 09.01.2026. Since the said tariff is very competitive and is in the interest of TNPDC, the Board of TNPDC in the 135th meeting held on 24.02.2026 has approved purchase of 600 MW of Firm and Dispatchable Renewable Energy (FDRE) with Peak Power for any 6 hours between 18.00 Hrs to 09.00 Hrs of the sub-sequent day as scheduled by

SLDC of 300 MW/1800 MWh (Solar +ESS) at the above said tariff, under Inter State Transmission System connected Tranche-XXI scheme for a tenure of 25 years.

1.22. The State is projected to face a significant surge in power demand during 2028. Procuring this 600 MW of solar power with 300 MW/1800 MWhr ESS is critical to bridge the anticipated supply-demand gap and ensure grid stability. The specific SECI tender offers a critical advantage – assured peak hours supply of 300 MW for 6 hours daily. This is essential for meeting the State's evening peak demand during mid 2028 and beyond.

2. Findings of the Commission

2.1. The Commission has examined the petition and the documents placed on record. TNPDC has sought approval for procurement of 600 MW of Firm and Dispatchable Renewable Energy (FDRE) power with 300 MW/1800 MWh Energy Storage Systems (ESS) from M/s. Solar Energy Corporation of India Limited (SECI) under the ISTS-connected Tranche XXI Scheme for a period of 25 years.

2.2. The tariff of Rs.3.12/kWh was discovered through the e-reverse auction held on 09.01.2026. SECI has offered the power at the discovered tariff, with a trading margin of Rs.0.07/kWh. The Board of TNPDC approved the proposed procurement in its 135th meeting held on 24.02.2026.

2.3. The demand projections and peak-hour deficit details furnished by TNPDCCL indicate the need for additional power procurement in the coming years. The proposed arrangement provides for 600 MW of solar power during solar hours and 300 MW of power backed by 1800 MWh of energy storage for six hours during the specified peak-hour period.

2.4. The Commission has also taken note of the State's Resource Adequacy Plan and the applicable Renewable Purchase Obligation (RPO) targets. The proposed procurement is intended to meet part of the State's power requirement during peak hours and support the integration of renewable energy into the grid.

2.5. Regulation 14 of the Tamil Nadu Electricity Regulatory Commission (Framework for Resource Adequacy) Regulations, 2025 provides for identifying an optimal mix of power procurement resources to meet demand and facilitate the integration of renewable energy. The proposed procurement is also required to be considered with reference to the applicable Renewable Energy Purchase Obligation Regulations and the guidelines issued by the Ministry of Power for procurement of Firm and Dispatchable Power under tariff-based competitive bidding.

2.6. The peak-hour deficit analysis furnished by TNPDCCL indicates that a shortage of power is expected to continue in the coming years, even after taking into account the other

planned procurement arrangements. The proposed procurement is intended to meet part of this deficit by providing storage-backed renewable power during the specified peak hours.

2.7. The Commission notes that variations in solar generation and the requirement for power during non-solar hours present challenges in meeting the State's demand. The proposed Energy Storage System would enable the contracted power to be supplied during the selected peak hours, in accordance with the terms of the scheme.

2.8. The Commission has considered the above aspects along with the tariff discovered through tariff based competitive bidding, the approval accorded by the Board of TNPDC and the resource adequacy details furnished by the petitioner while examining the proposal.

3. Order

3.1. The Commission approves the procurement by Tamil Nadu Power Distribution Corporation Limited of 600 MW of solar power with 300 MW/1,800 MWh Energy Storage Systems from Solar Energy Corporation of India Limited under the ISTS-connected Tranche XXI Scheme for a period of 25 years, at the discovered tariff of Rs.3.12/kWh, together with the trading margin of Rs.0.07/kWh payable to SECI, subject to the applicable bidding guidelines, scheme conditions and relevant Regulations of the Commission.

3.2. The procurement shall be implemented in accordance with the applicable scheme and contractual provisions, such as 600 MW of solar power during solar hours including the supply of 300 MW/1,800 MWh during six selected peak hours within the specified peak-hour window, and the applicable scheduling and performance obligations.

3.3. TNPDCCL shall approach the Commission separately for tariff adoption after finalising the tender, in accordance with Section 63 of the Electricity Act, 2003.

Ordered accordingly.

(Sd....)
Member (Legal)

(Sd....)
Member

(Sd....)
Chairman

/True Copy /

**Secretary
Tamil Nadu Electricity
Regulatory Commission**