# KERALA STATE ELECTRICITY REGULATORY COMMISSION THIRUVANANTHAPURAM

### Present : Adv. A.J Wilson, Member Shri B Pradeep, Member

# Petition: **OP No. 43/2024**

In the matter of	:	Petition under Regulation 77 of the KSERC (Terms and Conditions for determination of Tariff) Regulations,2021 read with Section 86(1)(b) and (e) of the Electricity Act 2003, seeking approval for the procurement of 500MW with 250MW for 2 hours peak power supply from the ISTS Tranche XV scheme of SECI under Tariff Based Competitive bidding.
Petitioner	:	Kerala State Electricity Board Ltd (KSEBL)
KSEBL represented by		<ol> <li>Shri. Rajan. M.P, Dy. Chief Engineer</li> <li>Smt. Latha S.N, Executive Engineer</li> <li>Shri. Shine Raj, Asst: Executive Engineer</li> </ol>
Respondent	:	M/s Solar Energy Corporation of India (SECI)
SECI Represented by		Shri. Mudit Jain, Deputy Manager
Date of hearing	:	07.11.2024, 11:00 AM
Venue	:	Court Hall of the Commission (Hybrid hearing)

## Order dated 17.01.2025

- 1. M/s Kerala State Electricity Board Ltd (hereinafter referred as petitioner or 'KSEBL') filed a Petition on 23.10.2024 before the Commission for the approval of the Power Sale Agreement dated 12.09.2024 signed with SECI for the procurement of 500MW with 250MW for 2 hours peak power supply from the ISTS Tranche XV scheme of SECI under Tariff Based Competitive bidding.
- 2. The summary of the petition filed by KSEBL is given below;
  - (1) KSEB Ltd had filled the instant petition as per the Regulation 77 of the Tariff Regulations,2021 seeking approval for the procurement of 500MW with 250MW for 2 hours peak power supply from the ISTS Tranche XV scheme of SECI.
  - (2) M/s Solar Energy Corporation of India (SECI) is a Navratna CPSU, established by the Government of India, for the development and expansion of Renewable Energy (RE) capacity in India. SECI has been

designated as a Renewable Energy Implementing Agency (REIA) for developing and facilitating the establishment of the Grid connected solar power capacity in India by the Gol.

- (3) Ministry of Power (MoP), Government of India (GoI) vide the Resolution dated 09.06.2023 has notified the guidelines for Tariff Based Competitive Bidding Process for the procurement of Firm and Dispatchable Power from Grid connected Renewable Power Projects with Energy Storage Systems.
- (4) M/s SECI as an intermediary procurer floated the tender on 16.03.2024 for Setting up of 1200 MW ISTS-connected Solar PV Power Projects with 600 MW/1200 MWh Energy Storage Systems (ESS) under Tariffbased Competitive Bidding (SECI-ISTS-XV).

As per the scheme, SECI shall select the developers through a transparent bidding process as per the guidelines notified by MoP/MNRE, GoI from time to time. SECI as the intermediary procurer will purchase the power from the selected bidders and sell the same to the buying entities. ISTS charges and losses shall be borne by the buying entity as per the applicable regulations notified by CERC.

- (5) The details of the bidding process and selection of bidders is given below.
  - SECI had conducted the e-RA on 16.07.2024 and selected the developers through the transparent bidding. The capacities and tariffs offered by the selected bidders after e-RA is given below;

ISTS Tranche XV scheme-1200 MW Solar+600 MW/1200 MWh ESS								
SI. No	I. No Capacity for allocation (MW) Discovered tariff through e-RA (INR/kWh) Trade margin (INR/kWh) Scheduled commencement of supply date							
1	100	3.41	0.07	3.48	24 months from effective date of			
2	1100	3.42	0.07	3.49	PPA			
Total	1200		-	-				

- (ii) The scheduled commissioning date (SCD) of the scheme is 24 months from the effective date of Power Purchase Agreement signed between the SECI and the Solar Power Developers (SPD).
- (iii) The salient features of the scheme are CUF- 25 to 27% during solar hours with two hours peak availability. Supplier failure penalty is 1.5 times of PPA tariff on an annual basis.
- (6) M/s SECI vide letter dated 30.07.2024 sought the consent of KSEBL for the procurement of power from the scheme. SECI also clarified that, allocation shall be done on first come first serve basis.

- (7) KSEBL vide the letter dated 06.08.2024 has issued consent for procuring 500MW with 250MW for 2 hours peak power from the SECI's offer for "Procurement of 1200 MW solar power with 600 MW/1200 MWh Energy Storage Systems (ESS) under ISTS Tranche XV Scheme" with peak requirement of 250 MW with the following features.
  - (i) Solar power will be available from 6 am to 6 pm all year round without interruption. Peak power will be available from 6 pm to 12 midnight and KSEBL can avail 250 MW firm power of 1 hour duration either continuously for 2 hours @ 250 MW/hour or split into different spells between the said time period.
  - (ii) While there is not much variation on the firmness of power during the peak hours, the solar power during the day time may be subjected to weather-induced / other fluctuations (not firm power).
  - (iii) The charges for both solar hours and peak hours (12 hrs + 2 hrs) will be a maximum of Rs. 3.42 per unit + 7 Ps per unit as SECI charges in addition to the transmission charges and losses.
  - (iv) The period of contract will be for 25 years.
- (8) Subsequently, KSEBL signed the Power Sale Agreement with SECI on 12<sup>th</sup> September-2024.
- (9) KSEBL further submitted that, renewable energy storage with battery places a very crucial role in optimal energy mix. Commercial and Industrial (C&I) consumers worldwide are proactively, voluntarily, and consciously attempting to increase their share of renewable energy (RE) consumption. This has resulted in companies worldwide entering into specific agreements with utilities for "green tariffs," Hence entering into this contact with M/s. SECI helps KSEBL to provides green tariff to the Consumers of the State.

KSEBL also submitted that, energy from the above offer can be included in the RPO of KSEBL. Also, peak energy provided by this proposal can be used for meeting Energy Storage obligation. Hence to cater the increasing demand of power and to meet the RPO/Storage obligation stipulated by the KSERC, the proposal seems to be very effective.

(10) Considering all these aspects, KSEBL requested to grant approval for the PPA for the procurement of 500MW with 250MW for 2 hours peak power supply from the ISTS Tranche XV Scheme of SECI on long term basis for a period of 25 years.

#### Deliberations during hearing on the petition

3. The Commission admitted the petition as OP No. 43/2024. Hearing on the petition was conducted on 07.11.2024. Shri. Rajan M.P, Deputy Chief Engineer, Smt. Latha S.V, Executive Engineer and Shri. Shine Raj, Asst: Executive Engineer presented the matter on behalf of KSEBL. Shri. Mudit Jain presented

the matter on behalf of the respondent SECI. The summary of the deliberations during the hearing is given below.

- (1) KSEBL submitted the following during the hearing;
  - (i) MoP, Gol vide the resolution dated 9<sup>th</sup> June 2023 has notified the Guidelines for Tariff Based Competitive Bidding Process for Procurement of Firm and Dispatchable Power from Grid Connected Renewable Energy Power Projects with Energy Storage Systems.
  - (ii) SECI, one of the renewable energy implementing agency identified by Government of India, floated a tender for procurement of 1200 MW ISTS connected Solar PV projects with 600MW/1200 MWh energy storage systems under tariff based competitive bidding (SECI ISTS-XV). Four bidders was selected as per e-RA held on 16.07.2024. The details of the selected bidders are given below.

SI No	Successful bidders	Bid capacity (MW)	Tariff (Rs/ kWh)	Allotted capacity (MW)
1	Pace Digitek Infra Pvt Ltd	100	3.41	100
2	Hero Solar Energy Pvt Ltd	250	3.42	250
3	ACME Solar Holidays Ltd	350	3.42	350
4	JSW Neo Energy Ltd	600	3.42	500
	Total	1300		1200

(iii) The rates offered by the SECI to the buying entities is given below.

IS	ISTS Tranche XV scheme-1200 MW Solar+600 MW/1200 MWh ESS								
SI. No	No allocation RA		Trade margin	Total tariff (INR/kWh)	Scheduled commencement of supply date				
	(MW)	(INR/kWh)	(INR/kWh)						
1	100`	3.41	0.07	3.48	24 months from				
2	1100	3.42	0.07	3.49	effective date of PPA				
Total	1200								

KSEBL further submitted that, the buying entities has to bear the ISTS charges and losses as per the relevant Regulations notified by CERC.

 (iv) KSEBL has decided to procure 500MW from the 1200MW Solar + 600MW/1200MWh ESS bids of SECI, and issued consent to SECI on 06.08.2024. Subsequently on 12.09.2024, KSEBL has signed the power sale agreement (PSA) with SECI for the procurement of power.

(v) As per the schedule to the PSA, the energy committed by the SPDs are given below.

Successful Bidder Name	Pace Digitek Infra Private Limited	Hero Solar Energy Private Limited	ACME Solar Holdings Limited	Total
Declared CUF %	25	27	25.3	
Project Capacity (MW)	100	250	150	500
Estimated Annual Generation of Electrical Energy (kWh) MUs	219.15	591.71	332.67	1143.53
Minimum Annual Generation of Electrical Energy (till the end of 10 years from SCSD) kWh MUs (i.e. 85% of Declared Energy)	186.28	502.95	282.77	972.00
Minimum Annual Generation of Electrical Energy (after 10th year up to end of 25th year) kWh MUs (i.e. 80% of Declared Energy)	175.32	473.36	266.14	914.82
Maximum Annual Generation of Electrical Energy kWh MUs (i.e. 110% of Declared Energy) till the end of the PPA duration of 25 years	241.07	650.88	365.94	1257.89

- (2) The representative of SECI during the hearing submitted the following.
  - SECI clarified that, subsequent to the signing of PSA with KSEBL, SECI had entered PPA with the selected Solar Power Developers (SPDs) as detailed below.

SPD	Date of PPA	Solar capacity (MW)	ESS capacity	Tariff (Rs/ kWh)
Pace Digitek Infra Private Limited	24.10.2024	100	50MW/ 100 MWh	3.41
Clean Renewable Energy Hybrid Eight Pvt Ltd (SPV of Hero Solar Energy Private Limited)	11.10.2024	250	125MW/ 250 MWh	3.42
ACME Solar Holdings Limited	15.10.2024	150	75MW/ 150 MWh	3.42
Total		500	250MW/ 500 MWh	

- (ii) SECI already has filed the petition (Petition No. 283/AT/2024) before the CERC for the adoption of the tariff of the SPDs selected under SECI ISTS XV scheme.
- (iii) SECI requested before the Commission to approve the tariff.

- (3) The Commission during the hearing has directed SECI to clarify whether the storage period can be expanded based on the seasonal demand variations. SECI clarified that the tender documents floated including the RfS on the condition of 2 hours of storage with the minimum discharge of 1 hour. SECI further submitted that, they shall get the feed back of the SPDs in this regard.
- 4. In compliance of the direction of the Commission to look into the feasibility of increasing the ESS discharge duration from the existing 2 hours to a longer period without altering the total energy availability and energy availability during peak hours, the petitioner KSEBL after getting the views of SECI submitted the following.
  - (i) KSEBL prefers to retain the 2-hour discharge duration as specified in the petition. It is observed that, in most cases, the maximum deficit during peak hours sustains for an average duration of 2 hours. Increasing the discharge duration to 4 hours could reduce the operational flexibility of the ESS. Furthermore, some developers have opined that, once a 4hour discharge duration is selected, it may not be feasible to limit it to 2 hours during normal operations, thereby restricting operational adaptability.
  - (ii) Additionally, the present offer provides provisions, which allows the buyer to select the specific 2-hour period during which the discharge will occur. This feature (clause 4.4.1 (a) iv of SECI-SPD PPA) specifies that, 'the Buying Entity is mandated to off-take the stored energy on a daily basis, and may choose to schedule peak power supply as per its requirement. The discharge of energy during Peak Hours shall be governed by the demand pattern of the corresponding Buying Entity (ies), as per the Buying Entity's schedule. In case of non-receipt of peak hours schedule from the Buying Entity by 6:00 AM in the morning on a particular day, SPD shall supply the peak power as per its own discretion during the Peak Hours of that day. The requirement of electricity supply during Peak Hours is to be mandatorily met on a day-to-day basis, and shall be monitored on a monthly basis'.
  - (iii) The price discovery occurred through a competitive bidding process, altering the bidding parameters at this stage may result in significant technical and financial implications.

Hence, KSEBL submitted that, the Commission may kindly accept the 2-hour discharge duration as specified in the petition, as it ensures better alignment with operational requirements and system flexibility, and issue the order accordingly.

#### Analysis and Decision of the Commission

- 5. The Commission having examined the petition filed by KSEBL for the approval of the power sale agreement signed with SECI dated 12.09.2024 for the procurement of 500MW power with 250MW for 2 hours peak power supply from ISTS Tranche XV Scheme of SECI, deliberations during the hearing held on 07.11.2024, the provisions of the Electricity Act, 2003, KSERC (Terms and Conditions for Tariff) Regulations,2021 and its amendments, other Rules and Regulations, decided the matter as follows;
- 6. Ministry of Power, Government of India, vide the Resolution No. 23/03/2023-R&R dated 9<sup>th</sup> June 2023 has notified the 'Guidelines for Tariff Based Competitive Bidding Process for Procurement of Firm and Dispatchable Power from Grid Connected Renewable Energy Power Projects with Energy Storage Systems (hereinafter referred to as bidding guidelines'. Important clauses in the bidding guidelines are discussed below.
  - (1) Clause 1.2.1 Specific Objectives of the Guidelines.

The specific objectives of these Guidelines are as follows:

(a). To provide firm and dispatchable power to the DISCOMs from renewable energy sources;

(b). To facilitate renewable capacity addition and fulfilment of Renewable Purchase Obligation (RPO)/ Storage Power obligations (SPO)requirement of DISCOMs;

(c). To provide a transparent, fair, standardized procurement framework based on open competitive bidding with appropriate risk-sharing between various stakeholders to enable procurement of power at competitive prices in consumer interest, improve bankability of projects and ensure reasonable returns to the investors; and

(d). To provide for a framework for the inter-state/ intra-state, long-term, salepurchase of power as a further measure to derisk the sector."

(2) Clause 2.2 (c) guidelines explain the 'Firm and Dispatchable RE (FDRE) power as follows.

"(c). 'Firm and Dispatchable RE Power': The term 'firm and dispatchable power' denotes, the power profile configuration that is defined in the RfS that is sought to be met by RE power sources and will include configurations like assured peak power, Round the Clock RE with firm delivery of power at rated capacity at any hour of the day as per demand or load following power delivery as specified by DISCOM, RE projects with firm delivery of power for fixed hours of requirement by DISCOMs etc."

- (3) Clause 2.2 (h) of the guidelines explains the 'Intermediary Procurer and End Procurer' as follows.
  - "(h). 'Intermediary Procurer' & 'End Procurer'
    - (i) In some cases, an intermediary, as designated by Ministry of New and Renewable Energy, Government of India, or a State Government, may be tasked to aggregate the power purchased

from different RE Power developers and sell it to the distribution licensee(s)/consuming entities/open access consumers., In such cases, the distribution licensees/consuming entities/open access consumers shall be the "End Procurer" and the intermediary shall be "Intermediary Procurer" for the purpose of these Guidelines.

- (ii) The Intermediary Procurer shall enter into a Power Purchase Agreement (PPA) with the RE Power developer and also enter into a Power Sale Agreement (PSA) with the End Procurer. The PSA shall contain the relevant provisions of the PPA on a backto-back basis. Trading margin, of Rs. 0.07/kWh shall be payable by the End Procurer to the Intermediary Procurer.
- (iii) As long as the Intermediary Procurer has followed these Guidelines for procurement of power, the End Procurer shall be deemed to have followed these Guidelines for procurement of power."
- (4) Clause-4 of the bidding guidelines prescribes the 'Energy mix of RE power and ESS, which is extracted below.

#### *"4. ENERGY MIX*

4.1. The Generator shall supply firm and dispatchable RE power, with the prescribed availability against the demand profile as specified in the RfS. Peak hours will be as declared by the DISCOM and specified as such in the RfS. Penalty for not meeting the stipulated availability shall be equal to one and a half times the tariff for the number of units not supplied.

4.2. The Generator has to offer power such that 100% of the annual energy offered corresponds to RE Power. The Generator can, however, source up to 5% RE power (on energy terms) on annual basis from the green market sources/bi lateral agreements towards meeting the supply conditions stipulated in the RfS.

4.3. The developer shall combine the RE generating system with energy storage for ensuring that it achieves the required availability against the demand profile as specified in the RfS and any other performance criteria stipulated in the RfS, provided power from RE sources were used to store energy in the storage system."

(5) Clause-5 of the bidding guidelines deals with the tariff for supply of power under the FDRE power, which is extracted below for ready reference.

#### *"5. TARIFF*

5.1. A single tariff for supply of firm and dispatchable RE power shall be quoted by the bidders (the "Tariff"). 5.2. The Tariff shall be quoted at the Delivery Point which shall be at the CTU interconnection point. All charges and losses till the delivery point shall be borne by the Generator."

- (6) Other important clauses in the bidding guidelines.
  - (i) Clause 2.2(i) Scheduled Commencement of Supply Date (SCSD). The SCSD shall be as per the RfS floated by the procurer.

Clause 14.2 prescribes that, the project shall commence supply of power within a period of 24 months from the date of execution of PPA with the SPD for projects size upto 1000MW, and 30 months for projects with capacity more than 1000MW.

Clause 14.3 prescribes the penalty for delay in commencement of supply of power.

- (ii) Clause 6.4. The per unit tariff quoted by the bidder for the entire term of the PPA shall be the 'bidding parameter'.
- (iii) Clause 7.5.1 prescribes the generation compensation in off take constraints due to Grid Unavailability.
- (iv) Clause 7.5.2. Prescribes the generation compensation for reduced offtake.
- 7. M/s SECI, is established by the GoI for the development of RE power in the Country, is also one of the Renewable Energy Implementing Agency of the Government of India.
- 8. SECI on 16.03.2024 had published the RfS for the supply of 1200MW Solar Power with 600MW/ 1200MWH Energy Storage Systems under tariff based competitive bidding (SECI- ISTS- XV) as per the bidding guidelines of the MoP, Gol dated 9.06.2023 for the procurement of FDRE power.

SECI through the e-RA held on 16.07.2024 has selected four bidders for the supply of power as per the RfS, as detailed under paragraph 3(1)(ii) above.

The rates for the 100MW power is Rs 3.41per unit and the balance 1100 MW is Rs 3.42/unit. The delivery point is the CTU interconnection point in the State where the plant located. The procurer/ buying entity has to bear the inter State transmission charges and losses beyond the interconnection connection point up to their State periphery.

Further, SECI has claimed Rs 0.07/unit as trading margin as per the bidding guidelines of MoP dated 9<sup>th</sup> June 2023.

9. As per the Orders on MoP, Gol dated 23.11.2021 and its subsequent amendments, the complete waiver of Inter-State Transmission Charges for the electricity generated from solar and wind sources are available only for projects commissioned on or before 30.06.2025. The ISTS charges payable for the projects commissioned from 01.07.2025 to 30.06.2026 is 25% of the applicable ISTS charges. However, for the projects commissioned from 01.07.2026 to 30.06.2027, the ISTS charges payable is 50% of the applicable ISTS charges.

As per the RfS of the SECIs ISTS Tranche XV scheme, the Scheduled Commencement of Power Supply Date (SCSD) is 24 months from the date of signing of PPA. As per the details available, the SECI has signed the PPA with the Solar Power Developers (SPDs) in October-2024 and the SCSD as per the signed PPA is 27.09.2026. Accordingly, buying entities has to pay 50% of the

applicable ISTS charges as transmission charges for the power procured from these projects.

The approximate per unit cost of ISTS charges applicable is about Rs 0.62/unit. Thus, ISTS charges of about Rs 0.31/unit has be borne by the buying entities for the procurement of power from the project. In addition to the above, the ISTS losses also has to be borne by the procurer of power from the project. The approximate ISTS losses is about 4% of the energy transacted through ISTS system. The per unit cost associated with the ISTS losses is about Rs 0.15/unit.

Thus, with the ISTS charges and losses associated with the transmission of the power from these projects to be borne by the buying utilities is about Rs 0.46/unit.

# Thus, as discussed above, the approximate per unit cost of power from the project is in the range of Rs 3.94/unit to Rs 3.95/unit at the State boundaries of the buying entities.

- 10. SECI has filed petition before the Central Electricity Regulatory Commission(CERC) for the adoption of tariff of 1200MW ISTS Solar Power Project with 600MW/ 1200 MWh Energy Storage System (ESS) selected through competitive bidding process (SECI ISTS XV) as per the Guidelines of the Gol. Final orders on adoption of tariff yet to be issued to CERC.
- 11. KSEBL vide its letter dated 06.08.2024 has issued consent to SECI for the procurement of 500MW power with 250MW for 2 hours peak support. Subsequently, SECI had signed the long-term Power Sale Agreement (PSA) with KSEBL for 25 years on 12<sup>th</sup> September 2024 from SECI ISTS XV bid.

As per the SCHEDULE-B to the Power Sale Agreement between SECI and KSEBL, the details of the power allotted from each SPD, its declared CUF, the energy committed by the SPDs are detailed below.

		Energy (MUs)					
SPD	Project Capacity (MW)	Declared MU	Declared CUF	Min. (- 15%) until 10 years from COD	Max. (+10%) from COD till 25 years of PPA	Min. (- 20%) thereafter till 25 years of PPA	Rate (Rs./ kWh)
Pace Digitek Infra Private Limited	100	219.15	25.0%	186.28	241.07	175.32	3.41
Hero Solar Energy Private Limited	250	591.71	27.0%	502.95	650.88	473.36	3.42
ACME Solar Holdings Limited	150	332.67	25.3%	282.77	365.94	266.14	3.42
Total (MUs)		1143.53		972	1257.89	914.82	

Energy committed by the SPDs for the 500 MW Solar PV Power Projects

12. Subsequently after signing the long term PSA with the KSEBL, SECI has signed the long term Power Purchase Agreement (PPA) with the SPDs, with the details as follows.

SPD	Date of PPA	Solar capacity (MW)	ESS capacity	Tariff (Rs/ kWh)	Scheduled commencement of supply
Pace Digitek Infra Private Limited	24.10.2024	100	50MW/ 100 MWh	3.41	27.09.2026
Clean Renewable Energy Hybrid Eight Pvt Ltd (SPV of Hero Solar Energy Private Limited)	11.10.2024	250	125MW/ 250 MWh	3.42	27.09.2026
ACME Solar Holdings Limited	15.10.2024	150	75MW/ 150 MWh	3.42	27.09.2026
Total		500	250MW/ 500 MWh		

- 13. Since the SECI and KSEBL has already signed the PSA on 12.09.2024 and subsequently the SECI and SPDs are signed the PPA as per the dates as detailed in paragraph-12 above, and the SPDs are selected by the SECI through competitive bidding as per the bidding guidelines dated 9<sup>th</sup> June 2023, KSEBL has filed the instant petition for the formal approval of the signed PSA as per Regulation 77 of the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2021 and its amendments.
- 14. However, the Commission has noted with concern the estimated rate of power from the Scheme at the Kerala periphery including charges and losses. As discussed in paragraph 9 above, the approximate cost of power from the Scheme at Kerala periphery is about Rs 3.94/unit to Rs 3.95/unit, with the very low CUF of 25% to 27% of the project. The only advantage projected by KSEBL is the assured commitment of peak supply of 250MW out of the 500MW for 2 hours during peak hours.

It is true that, the rate of power during peak hours is high especially during peak hours of the summer months. However, KSEBL could not submit proper justification with supporting details that, the proposal of SECI's ISTS XV scheme is better than 'solar purchase without peak support, and separate peak power purchase at 2 hours per day'. KSEBL had also not submitted the impact of the proposed procurement of 500MW solar power with 250MW 2 hour peak supports on its overall cost of power purchase and in tariff during the entire term of the PSA.

15. The Commission had directed KSEB Ltd through various orders that, since the cost of power purchase contributes more than 55% of the total cost of KSEBL, it has to give due importance for the optimisation of the cost of power purchase including internal generation.

The Commission has also given number of direction to KSEBL to submit optimum proposals for meeting the projected power requirement and resource adequacy plans in a longer horizon with a minimum period of 10 years from 2024-25, including internal generation, power purchase from different portfolio mix including long-term, medium-term, short-term power purchase from different sources including RE sources, including cost and impact on tariff.

However, though KSEBL is yet to comply with these directions of the Commission for the optimization of cost of power purchase. Without supporting details, the Commission also could not appraise the impact of the proposed power purchase of 500MW power from SECI's ISTS Tranche XV Scheme in KSEBL and its consumers.

16. The Commission also noted that, SECI and other REIAs including SJVN, NHPC and NTPC are bidding for different types of FDRE Power with different types of peak support, dispatch of FDRE power as per the load profile of the buying entity etc.

KSEBL should give due care and attention to tie-up necessary RE power from bids floated / floating by these REIAs at competitive rates, after detailed appraisal including cost benefit analysis and its impact on tariff. The long term Resource Adequacy Plan that provides the trajectory for the least cost power generation/procurement portfolios shall form the foundation for such analysis Without such necessary and sufficient details including cost impacts and financial consequences, the Commission may decline such petitions for approval of power purchase in future.

17. As discussed in paragraph 9 and 14 above, the estimated rate of power at Kerala periphery from the SECI ISTS Tranche XV scheme is about Rs 3.94/unit to Rs 3.95/unit including the ISTS transmission charges.

The Commission further noted that, as per the PPA signed between the SECI and SPDs, the Scheduled Commencement of Supply Date (SCSD) is 27.09.2026. However, if the SPDs could commission the projects by three months earlier by 30<sup>th</sup> June 2026, the ISTS transmission charges payable may get reduced from 50% to 25% of the applicable ISTS charges. At the prevailing rate, this would result in getting the reduction of ISTS charges by Rs 0.15/unit, and the rate of power at Kerala periphery may get reduced to Rs 3.79/unit to Rs 3.80/unit from the present level of estimated rate of Rs 3.94/unit to Rs 3.95/unit at Kerala periphery.

Considering the importance of the matter and its financial consequences in the long run, KSEBL shall through SECI may request the SPDs for the early commissioning of the project, atleast by three (3) months from the SCSD of 27.09.2026 specified in the PPA between SECI and SPDs. KSEBL shall also continuously follow up the progress of installation of the power plants under the scheme with the SPDs through SECI.

18. With the above observations, directions, the Commission has decided to approve the Power Sale Agreement dated 12.09.2024 signed between the

SECI and KSEBL for the procurement 500MW with 250MW for 2 hours peak power supply from ISTS Tranche XV scheme of SECI.

# Orders of the Commission

- 19. The Commission after examining the petition filed by KSEBL for the approval of the power sale agreement signed with SECI dated 12.09.2024 for the procurement of 500MW power with 250MW for 2 hours peak power supply from ISTS Tranche XV Scheme of SECI, deliberations during the hearing held on 07.11.2024, the provisions of the Electricity Act, 2003, KSERC (Terms and Conditions for Tariff) Regulations,2021 and its amendments, other Rules and Regulations, orders the following;
  - (1) Approve the power sale agreement dated 12.09.2024, signed between SECI and KSEBL for the procurement of 500MW power with 250MW for 2 hours peak power supply from ISTS Tranche XV Scheme of SECI, with the observations and directions given in paragraphs 13 to 17 of this Order.
  - (2) KSEBL shall, through SECI request the Solar Power Developers (SPDS) for the early commissioning and commencement of supply from the SCSD of 27.09.2026, at least by three (3) months, i.e., on or before 27.06.2026 as per paragraph 17 above.

The petition disposed of. Ordered accordingly.

Sd/-Adv. A J Wilson Member

Sd/-B Pradeep Member

Approved for issue

Sd/-C R Satheesh Chandran Secretary