

**BEFORE THE HON'BLE KERALA STATE ELECTRICITY REGULATORY COMMISSION**

**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 166MW firm and dispatchable Power from Satluj Jal Vidyut Nigam (SJVN)'s ISTS Connected Renewable Energy (RE) Power Project with Energy Storage Systems in India under Tariff – based Competitive Bidding.

**Petitioner:** Kerala State Electricity Board Ltd.

**Respondent:** M/s. SJVN Limited  
Shakti Sadan, Shanan  
NBCC Complex, Tower -1  
New Delhi

KSEBL MOST HUMBLY STATES THAT:

1. Kerala State Electricity Board Limited files the instant petition seeking approval for the procurement of 166MW firm and dispatchable Power from Satluj Jal Vidyut Nigam (SJVN)'s ISTS Connected Renewable Energy (RE) Power Project with Energy Storage Systems in India under Tariff based Competitive Bidding. The petition is filed under Regulation 77 of the KSERC (Terms and Conditions for determination of Tariff) Regulations,2021
2. It is submitted that, the Distribution companies are mandated to procure power from Renewable Energy Sources to meet its Renewable Purchase Obligation as per the provision of Section 86(1)(e) of the Electricity Act, 2003 and in terms of the KSERC (Renewable Energy and Net Metering) Regulations, 2020 as amended from time to time.

3. As per Regulation 77 of the KSERC (Terms and Conditions for determination of Tariff) Regulations 2021, the distribution licensee shall not enter into any long term or medium-term power purchase without the formal approval of the Commission.
4. As per Section 86 (1) (b) of the Electricity Act, 2003, Hon'ble Commission has to regulate electricity purchase and procurement process of the distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State.
5. The National Tariff Policy, 2016 formulated by the Ministry of Power has provided specific guidance on purchase of power generated from renewable energy sources. Section 6.4(2) of the National Tariff Policy provides that procure power from renewable energy sources through competitive bidding to keep the tariff low, except from the waste to energy plants. Procurement of power by Distribution Licensee from renewable energy sources from projects above the notified capacity, shall be done through competitive bidding process, from the date to be notified by the Central Government.
6. It is submitted that, Government of India (MNRE) vide OM No. F.No.283/33/2020-GRID SOLAR dated 24.04.2023 has designated M/s. Satluj Jal Vidyut Nigam (SJVN) Ltd. as Renewable Energy Implementing Agencies (REIAs). Other REIAs are SECI, NTPC & NHPC.
7. M/s. SJVN, a public sector enterprise under Government of India is a joint Venture of Government of India and Government of Himachal Pradesh. M/s.SJVN initiated a bidding process for the procurement of 1500 MW power from interstate transmission system (ISTS)-connected renewable energy projects with energy storage capacities across India. The projects will be developed on a build-own-operate (BOO) basis.
8. M/s. SJVN as a REIA has concluded an e-RA for Selection of RE Power Developers for Supply of 1500 MW Firm and Dispatchable Power from ISTS- Connected Renewable Energy (RE) Power Projects with Energy Storage System in India under Tariff-based Competitive Bidding. These projects are expected to deliver the RE power within 24 months after the signing of Power Sale Agreement / Power Purchase Agreement. SJVN

has the option to sell the power at the applicable tariff of Rs. 4.46 / kWh (i.e. Rs. 4.39 / kWh discovered through e-RA + Rs. 0.07 / kWh as trading margin of REIA).

9. The features of the "Supply of 1500 MW Firm and Dispatchable Power from ISTS-Connected Renewable Energy (RE) Power Projects with Energy Storage System" project as specified by M/s. SJVN are as follows:

- i. Average Annual CUF is 70% (approx.)
- ii. The plant will ensure four hours of peak power during the day with 90% availability on monthly basis (i.e, 02 hours in the morning during the period 05:00 Hrs to 11:00 Hrs & 02 hours in evening during the period 17:00 Hrs to 23:00 Hrs on daily basis) as per schedule given by the Buying Entity.
- iii. Penalty provisions for not meeting the Peak Power Criteria on monthly basis (i.e, if availability during Peak Hours would be less than 90%, then penalty of 1.5 times the applicable tariff would be applicable to the developers).
- iv. Penalty provisions for not meeting the Annual CUF (%) (within + 10% and -15% of the declared value), then penalty of 1.5 times the applicable tariff would be applicable to the developers.
- v. Delivery Point is ISTS Substation
- vi. Tenure of contract is 25 years, which may further be extended with mutual consents among the developer, SJVN and the Buying entities.
- vii. Timelines of implementation of Project is within 24 months from the date of signing of Power Purchase Agreement. Power Purchase Agreement would be signed within one month with the RE Developers after signing of the Power Sale agreement with the Buying Entities.
- viii. Daily availability of power- Annual CUF is approximately 70% as submitted by the RE Developers, which is equivalent to around 16-17 Hours of availability on daily basis. However, the same may vary as per the availability of Wind as well as Solar Radiation.
- ix. The tariff offered by SJVN is Rs. 4.46/unit (Rs. 4.39/unit discovered through e-RA & Rs. 0.07/unit as trading margin of REIA). The tariff discovered shall remain constant throughout the contract period. However, any impact due to change in law, would be liable after approval from the Commission (i.e., CERC).

10. M/s. SJVN had approached KSEBL requesting to intimate the required quantum of Firm and Dispatchable RE Power with peaking, as per the requirement of Kerala. Letter received from M/s. SJVN is attached as Annexure I. As per Request for Selection (RfS) Document for Selection of RE Power Developers for Supply of 1500 MW Firm and Dispatchable Power from ISTS- Connected Renewable Energy (RE) Power Projects with Energy Storage System in India under Tariff-based Competitive Bidding, "FIRM AND DISPATCHABLE RE POWER" shall mean *'the power profile configuration that is defined in the RfS that is sought to be met by RE power sources and will include Supply of contracted capacity of Firm and Dispatchable Power from ISTS- Connected Renewable Energy (RE) Power Projects based on generating system(s) including solar, wind or any other renewable resource as defined by MNRE for supply of RE Power combined with Energy Storage System.'*
11. KSEBL has analysed the Load generation balance and is attached as Annexure II. It is submitted that, in the LGB, 4% demand growth is considered year over year. The availability is calculated based on the growth in internal generation, commissioning of hydel projects [which are under various stages of execution], already existing power purchase contract, power availability from 400 MW Talabira Station from 2026-27, etc. Even after considering all the resources, there exist a deficit of power.
12. Considering the above shortage KSEBL was decided to explore the offer received from M/s. SJVN. As the peak power availability is four hours with 90% availability on monthly basis, it was decided to ensure a quantum of 150 MW during peak hours. This requires a contract for 166.66 MW with 90% availability.
13. Thus to cater to the increasing demand of power in the license area and to meet the renewable purchase obligation/storage obligation stipulated by KSERC, KSEBL has decided to avail 166.66 MW of power from M/s. SJVN for a period of 25 years @ Rs.4.46/unit under its "Supply of 1500 MW Firm and Dispatchable Power from ISTS- Connected Renewable Energy (RE) Power Projects with Energy Storage System in India under Tariff-based Competitive Bidding" project with morning peak requirement from 6 hrs to 8hrs and evening peak requirement from 18-20 hrs for the months July to

December and morning peak requirement from 6 hrs to 8 hrs and evening peak requirement of 19 to 21 hrs for the months January to June.

14. It is 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 contact with M/s. SJVN helps KSEBL to provides green tariff to the Consumers of the State. Further, DISCOMs, or Distribution Companies, are obligated entities that must meet their Renewable Power Obligation (RPO) targets. KSEBL as a DISCOM is obligated to meet RPO compliance notified by KSERC. KSERC has now notified draft Renewable energy and net metering regulation, and in which specific targets assigned for wind energy and storage. Thus, entering into this contract will help KSEBL to meet RPO obligations in addition to energy demand in the State including peak power demand.
15. Further, as per the Explanatory Note on the proposed KSERC Renewable Energy and Net metering draft (Amendment) Regulations, the Hon'ble Commission has observed in para 3 that, licensee shall enter into RE hybrid projects with assured quantum for peak assistance through ESS. The relevant partition of the explanatory note is reiterated below;

*'Currently, the implementation of Energy Storage Systems (ESS) in the country is in the pilot stage. But it is seen that Solar Energy Corporation of India Ltd. (SECI) has finalized tenders for 1200 MW of RE hybrid projects with assured quantum for peak assistance through ESS at a reasonable rate of around Rs.5 per unit. More such tenders are in the pipeline. Hence the licensee can fulfill the ESS requirement through these tenders. Considering these, it is suggested to introduce ESS obligation in the State from FY 2025-26.'*

16. By considering the all, it is hereby requested before the Hon'ble Commission to kindly grant approval for the procurement of 166.66 MW of power from M/s. SJVN @

Rs.4.46/unit on long term for a period of 25 years for meeting the RPO requirement of KSEBL.

## Prayer

17. In the above background, and in accordance with 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, it is respectfully prayed that this Hon'ble Commission may be pleased to:

- (i) To admit this Petition.
- (ii) Approve the procurement of 166.66 MW of power from M/s. SJVN @ Rs.4.46/unit under its "Supply of 1500 MW Firm and Dispatchable Power from ISTS- Connected Renewable Energy (RE) Power Projects with Energy Storage System in India under Tariff-based Competitive Bidding" project with morning peak requirement from 6 hrs to 8hrs and evening peak requirement from 18-20 hrs for the months July to December and morning peak requirement from 6 hrs to 8 hrs and evening peak requirement of 19 to 21 hrs for the months January to June.
- (iii) Pass any other Order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case

**Chief Engineer  
Commercial & Tariff**