KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM

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

Petition: **OP No. 23/2025**

In the matter of	:	Petition under Regulation 77 of the KSERC (Terms and Conditions for determination of Tariff) Regulations, 2021 and seeking approval for the implementation of a 125MW/ 500 MWh Battery Energy Storage System (BESS) at Myalatti Substation in Kasargod District, Kerala.
Petitioner	:	Kerala State Electricity Board Ltd (KSEB Ltd)
Respondent	:	Solar Energy Corporation of India Limited (SECI)

Petition: **OP No. 24/2025**

In the matter of	:	Petition seeking approval for the adoption of the tariff discovered under tariff based competitive bidding for 125 MW / 500 MWh BESS at Mylatti Substation in Kasargod District
Petitioner	:	Kerala State Electricity Board Ltd (KSEB Ltd)
Respondent	:	1. Solar Energy Corporation of India (SECI) 2. JSW Neo Energy Limited.
Petitioner represented by	:	Shri M.P Rajan, Dy. Chief Engineer Shri Asha P.A, DY CE, REES & PED Shri Basheer P.K, Dy CE, Solar projects Smt. Cini John, Asst: Executive Engineer, REES Shri. Shine Raj.P, Asst: Executive Engineer Smt Asha A.V, Asst: Engineer
Respondent represented by	:	Shri Mudit Jain, Dy Manager (Energy Management Department), SECI Shri Vaibhav Rawat, Asst: Manager, JSW
Date of hearing	:	30.04.2025, 11:00 AM
Venue	:	Court Hall of the Commission

Order dated 31.07.2025

1. Kerala State Electricity Board Ltd (hereinafter referred to as KSEBL or petitioner) on 24.02.2025 has filed a petition with the prayer to 'grant in-principle approval for the implementation of 125MW/ 500Mwh BESS at Mylatti Substation under tariff based competitive bid. The Commission admitted the petition as OP 23/2025.

2. Subsequently, KSEBL on 09.04.2025 has filed another petition before the Commission with the prayers to,

"

1. In accordance with Regulation 77 of the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2021, 'grant in-principle approval for the implementation of 125 MW/500 MWh BESS at Mylatti substation under tariff based competitive bid,

2. Adopt the tariff, discovered in the tariff based competitive bid of Rs. 4.41 Lakh / Mw / Month quoted by the firm M/s. JSW Neo Energy Limited (M/s. JSWNEL) as per section 63 of Electricity Act 2003. Also requested to approve the trading margin of 7 paise per unit payable to SECI.

3. Approve the BESSA signed by KSEBL with SECI for the procurement of 125 MW500 MWh BESS."

Commission admitted the petition as OP No. 24/2025.

3. The summary of the petition filed by the petitioner in the above petitions are given below;

(1) As the renewable energy penetration increases across the grid, challenges associated with managing fluctuations in demand and supply have become increasingly pronounced, particularly during evening and morning peak hours when renewable energy is unavailable. This necessitates additional power dispatch to maintain grid stability.

(2) The Ministry of Power (MoP), Government of India (GoI) vide the operational guidelines dated 10th March 2022, titled 'Procurement and Utilization of Battery Energy Storage Systems as part of Generation, Transmission and Distribution assets, along with Ancillary Services", has recognized BESS as a critical infrastructure for integrating renewable energy into the grid and ensuring its stability.

(3) KSEBL has decided to proceed with the implementation of a 125 MW / 500 MWh Battery Energy Storage System (BESS) at Mylatti, supported by a State Component of Viability Gap Funding (VGF) amounting to Rs.135 crores, as sanctioned vide Order No. F. No. 42-26/1/2022-NRE (Pt.III) dated 28th November 2024 of the MoP, GoI.

The 125 MW capacity has been selected as an initial initiative to assess the feasibility and operational effectiveness of the system. The installation is expected to ensure a daily energy availability of 0.5 MU (4 hours of storage), thereby contributing to grid stability and balancing demand fluctuations. The project performance will be evaluated for potential scalability in the future.

The four hour discharge period can be adjusted to meet evolving grid demand and enhance flexibility, making the system adaptable for various operational scenarios.

(4) KSEBL has decided to engage SECI as the intermediary procurer, with a trading margin of 7 paise per unit payable to SECI as per the guidelines dated 9th October 2024.

(5) SECI has floated the tender for the project on 20th December 2024 in compliance with MoP guidelines dated 10th March 2022. SECI vide the letter dated 14.01.2025 confirmed that, the guidelines, its amendments/ clarifications issued by the Government of India are followed for the bidding process in the tender and no deviation has taken from the guidelines in the RfS document for the tender.

Prebid meeting of the tender was conducted on 10.01.2025 and more than 20 firms participated in the meeting.

The last date for bid submission was extended to 10.02.2025 at 18:00 hrs and the technical bid opening date was scheduled on 13.02.2025 at 10:00 hrs.

(6) KSEBL on 24.02.2025 has filed a petition before the Commission seeking in principal approval for the implementation of a 125MW/ 500MWh BESS at Mylatti substation, Kasargod, through competitive bidding. It was also submitted in the petition dated 24.02.2025 that, after discovering the L1 rate, KSEBL will file a separate petition before this Commission for the adoption of the tariff.

(7) The financial bid opening and e-Reverse Auction, were held on 25.02.2025. The tender discovered rate is Rs 4.41 Lakh / MW/Month quoted by the firm M/s. JSW Neo Energy Limited (M/s. JSWNEL).

(8) As submitted earlier, the Ministry of Power (MoP) had sanctioned VGF of Rs.135 Cr, in State component scheme for the setting up of Battery Energy storage system (BESS) and accordingly, global e-tender was floated through solar Energy corporation of India (SECI) as BESS Implementing Agency (BIA) for 125 MW /500 MWh BESS project.

Further, for availing the VGF, timelines stipulated in the guidelines need to be adhered.

(9) As per the guidelines, Letter of Award (LoA) will be issued within 10 days of KSEBL approval and Battery Energy Storage Purchase Agreement

(BESPA) needs to be signed by SECI with the developer within 30 days of LoA.

(10) The Battery Energy Sale Agreement (BESSA) with SECI needs to be executed by KSEBL prior to signing the BESPA. Further to avail the State component of VGF amounting to Rs. 135 Cr for this Project, the Central Electricity Authority vide letter dated 23.01.2025, instructed that the award of work shall be completed by March 2025.

Hence, after discovering the rate, to keep the time line, the Letter of acceptance (LoA) was issued to M/s. JSWNEL on 20.03.2025.

(11) KSEBL submitted that the 4 hours of storage is not common in the tender in the Country. The rate discovered in the various recent tenders of BESS are shown below;

Sl	Tender Month	State	Power capacity (MW)	Energy Capacity (MWh)	Cycle/ day	VGF	Rate (Lakh/ MW/ month)
1	Mar-24	Gujarat	500	1000	2	Nill	3.72
2	Jun-24	NTPC Rajastan/ Gujarat	500	1000	2	73L /MWh	2.37
3	Jun-24	SECI, Rajastan	1000	2000	2	Nill	3.81
4	Aug-24	Maharashtra	300	600	1	27/MWh	2.19
5	Aug-24	Gujarat	500	1000	2	27L /MWh	2.26
6	Nov-24	Rajasthan	500	1000	2	27L /MWh	2.21

All the above tenders have a storage duration of 2 hours. Further, except for Maharashtra, all tenders were for two cycles. In the tender floated by KSEBL, the storage duration is 4 hours, requiring double the battery sizing.

KSEBL has floated the first tender for single-cycle, four-hour usage. Subsequently, NTPC (1000 MWh), SJVN for UP (1500 MWh), and Bihar (500 MWh) -totalling 3000 MWh with VGF were tendered for single-Cycle, four-hour usage.

In the tender floated by KSEBL in the year 2022 for setting up of BSS, the storage cost discovered was Rs 11.20 lakh/MW/month, were significantly higher than the current market rates.

(12) The planning process for transitioning to a greener energy mix necessitates integrating planned renewable capacity while maintaining grid reliability. The target of achieving 500 GW of non-fossil-based capacity by 2030,as outlined by the Government of India, underscores the importance of infrastructure like BESS and pumped hydro storage Plants.

In Kerala, the reliance on expensive electricity purchases from power exchanges during non-solar hours adds a significant financial burden to the incumbent licensee KSEBL. The implementation of BESS will mitigate this challenge by enabling the storage of low-cost solar power during the daytime for use during peak demand periods.

(13) By implementing the project, the internal power handling capacity of the state will increase by 125 MW and to the extent the dependence of the ISTS corridor of 4260MW will get reduced.

Further the storage scheme will help to store energy to the extent of 500MWh (0.5 MU/day) for meeting peak power Requirements. The storage system will directly replace equal quantum of peak power purchase from the Power Exchange and payment for BESS can be made from the Savings effected in peak power purchase.

(14) KSEBL further submitted that, the proposed BSS project does not require any upfront capital investment from the licensee. Payments will commence only after one month of COD and will offset by savings in peak power purchase costs. The project therefore, offers a financially sustainable solution for addressing the State's peak demand challenges while augmenting internal power storage capacity.

The implementation of the BESS projects aligns with the State Government's ambitious target of meeting 50% of the energy requirement from RE sources by 2030 and to achieve 100% RE reliance by 2040. It also support the State's vision of becoming carbon neutral by 2050.

(15) The Mylatti substation of KSEBL was strategically selected for the project. Kasargod district lacks significant local generation facilities except the 100MW solar park. The district experiences grid fluctuations due to the existing 100MW solar park. The site is at the northern most part of the State, coupled with its lack of ISTS connectivity make its ideal location for the proposed BESS. This project also address the transmission constraints in the district.

(16) Considering all these factors, KSEB Ltd requested before the Commission to grant approval for the implementation of 125 MW/ 500 MWh BESS at Mylatti substation under tariff based competitive bid and adopt the tariff discovered under tariff based competitive bidding as per the provisions of section 63 of Electricity Act 2003.

(17) KSEB Ltd further requested before the Commission to adopt the tariff of Rs. 4.41 Lakh / MW / Month quoted by the firm M/s. JSW Neo Energy Limited (M/s. JSWNEL), based on the provisions of section 63 of Electricity Act 2003 and allow KSEBL to enter in to power purchase from this BESS, as per Regulation 77 of the KSERC (Terms and conditions for determination of Tariff) Regulations 2021.

4. Subsequently, vide the affidavit dated 30.04.2025, KSEBL submitted the copies of the ‘Battery Energy System Sale Agreement (BESSA)’ dated 10.04.2025 signed between SECI and KSEBL and ‘Battery Energy System Purchase Agreement (BESPA)’ dated 29.04.2025 signed between SECI and M/s JSW Neo Energy Limited.

Hearing on the petition

5. Hearing on the petition was held on 30.04.2025 at the court hall of the Commission at Thiruvananthapuram. Shri. Shine Raj, Asst: Executive Engineer presented the matter on behalf of the petitioner KSEBL. Shri. Mudit Jain, Deputy Manager, appeared before the Commission on behalf of SECI. Shri. Vaibhav Rawat, Asst: Manager appeared on behalf of the respondent M/s JSW Neo Energy Ltd. Summary of the deliberations during the hearing is given below.

(1) KSEBL during the hearing submitted the following;

(i) Growing penetration of renewable energy (RE) especially solar is creating severe operational challenges to the grid. As on date, the RE contributes about 1500MW, out of it solar alone accounts for 1264MW. This lead to surplus power during solar hours, however severe power shortage during non-solar hours.

(ii) MoP, GoI, vide the guidelines dated 10th March 2022 has notified the bidding guidelines for procurement and utilisation of BESS.

(iii) KSEBL has decided to implement 125MW/500 MWh BESS at Mylatti substation at Kasargod as a pilot scheme. MoP, GoI vide its letter dated 28th November 2024 has allocated Rs 135.00 crore as VGF for the development of Battery Energy Storage System in the State of Kerala.

(iv) KSEBL has engaged SECI as the BESS Implementing agency as per the operational guidelines for State Component under the scheme of VGF for the development of BESS in the State.

(v) SECI on behalf of KSEBL has prepared the bidding documents and submitted that there is no deviations in the bidding documents from the bidding guidelines notified by MoP, GoI. After completing the bidding process, M/s JSW Neo Energy Ltd emerged as the lowest bidder, which quoted the capacity charge @Rs 4.41 lakh/MW/month.

(vi) In order to comply with time limit specified to complete the process by March 2025, SECI issued the LoA on 20.03.2025 and signed the Battery Energy Sale Agreement (BESA) between KSEBL and SECI on 10.04.2025. Subsequently, SECI has signed the Battery Energy Purchase Agreement with M/s JSW Neo Energy on 29.04.2025.

(vii) Key features of the tender includes,

- Round trip Efficiency (RtE) @85% set as the benchmark. Performance incentive @Rs 0.50/unit was proposed for energy discharged above this efficiency.
- Capacity degradation was limited to 2.50% annually. If the degradation was below 2.0%, incentive @Rs 1.00/unit was provide for excess discharge.
- Schedule of commissioning was 18month from 16.04.2024, the effective date. If the BESS is commissioned within 9 months, a completion bonus of Rs 8.40 crore will be allowed. If the project is commissioned within 15months, the incentive shall be Rs 40.00 lakhs. No incentives for the commissioning after 15 months.
- If the RtE falls below 70%, KSEBL is not bound to pay capacity charges. If the RtE is between 70% to 85%, liquidated damage shall be levied @APPC charges of previous financial year of KSEBL.
- The developer required to deliver 500MWh per day with 400 discharge cycles annually.
- The project duration is 12 years with an option for five year extension. In the extended period, energy will be procured at 60% of the original tariff.

(viii) KSEBL further clarified that, auxiliary power for BESS operations will be drawn from inter connection point, separately metered and billed at industrial tariff.

(ix) KSEBL further clarified that, 'the Operational Guidelines for State Component under the Scheme for Viability Gap Funding for development of Battery Energy Storage Systems' notified by the Ministry of Power, GoI on 9th October 2024 provided that, the trading margin to be paid to the Bid Implementing Agencies (BIAs) @ 7 paise per unit.

MoP, GoI vide the letter dated 28th November 2024 has sanctioned VGF of Rs 135 crore @ Rs 27 Lakh/ MWh under the Scheme to KSEBL for the 500MWh BESS capacity.

Since the trading margin is part of the operational guidelines of the VGF Scheme for BESS, KSEBL is mandated to pay the same to the BIAs.

(2) Solar Energy Corporation of India (SECI) submitted the following during the hearing;

(i) SECI is the BESS Implementing Agency (BIA) and acted as the bidding coordinator on behalf of KSEBL under Section 63 of the EA-2003. The tender for the BESS project was issued on 20th December 2024.

(ii) Seven bids were received in response to the RFS, and all the bidders quoted the full capacity of 125MW/ 500MWh BESS. All of them qualified in the techno-commercial evaluation. Subsequently, in line with the bidding guidelines, financial bids were opened, followed by e-reverse auction (e-RA) process. In the e-RA, M/s JSW Neo Energy Ltd emerged as the L1 bidder, with the quoted tariff of Rs 4.41 lakh/ MW/ month.

(iii) SECI further informed that, the internal bid evaluation committee certified that, the bidding process are strictly as per the bidding guidelines notified by the MoP, GoI.

(iv) SECI further submitted that, the trading margin @Rs 0.07/unit was claimed as per the operational guidelines for State Component under the Scheme for Viability Gap Funding for development of Battery Energy Storage Systems' notified by the Ministry of Power, GoI on 9th October 2024.

(3) M/s JSW Neo Energy Ltd, during the hearing submitted that, they are planning to commission the 125MW/ 500MWh BESS project within eighteen (18) months timelines, however target to expediate the implementation for the early commissioning of the project.

(4) Based on the deliberation during the hearing, the Commission has directed the parties to clarify the following;

(i) The term 'APPC' was not defined in the RfS documents and the PSA and PPA signed between the parties. Commission directed the parties to clarify the same.

(ii) Commission has directed the parties to clarify the methodology adopted for assessing the degradation.

(iii) Directed the parties to provide the measurement of Roundtrip Efficiency (RtE), especially when the charging and discharging is being done on different days.

(iv) The Commission has also directed the parties to clarify that, as per the bidding guidelines dated 10.03.2022, the trading margin is 'seven paise per kWh or 0.50% of the capacity charges (as applicable).

6. In compliance of the clarifications sought by the Commission, M/s SECI vide its submission dated 13.05.2025 has submitted the following;

(1) Ministry of Power, Government India, vide the Order dated 11.10.2024 designated SECI as the BESS Implementing Agency (BIA) for

implementing the State Component of the VGF Scheme for the development of BESS, as per the terms and conditions specified in BESS Operational Guidelines dated 09.10.2024.

(2) On 28.11.2024, MoP conveyed the approval for allocation of 500MWh BESS capacity to the State of Kerala with a VGF of Rs 27 lakh/ MWh or 30% of the capital cost, whichever is lower under the State component of the Scheme.

(3) On 20.12.2024, SECI in the capacity of BIA had floated the tenders on ISN Electronic Tender System (ISN ETS) e-bidding portal. The bidding guidelines was prepared in line with the BESS guidelines dated 10.03.2022 read with BESS operational guidelines dated 09.10.2024 issued by Ministry of Power, GoI.

(4) The last date of the online submission of the bid was on 10.02.2024 and the Techno Commercial part of the bid was opened on 13.02.2025. Total seven bidders participated in the bidding process and all of them were qualified. All the bidders submitted the financial bids, and out of the same six bidders were shortlisted for e-reverse auction. Through the e-Reverse auction, M/s JSW Neo Energy Limited emerged as the L1 bid, quoted Rs 4.41 Lakh/MW/ Month as capacity charges.

After the conclusion of the e-Reverse Auction, on 20.03.2025, SECI issued LoA to the successful bidder.

SECI has entered into Battery Energy Storage Sale Agreement (BESSA) with the petitioner on 10.04.2025 for 125MW/ 500MWh BESS.

(5) SECI has also submitted the Bid Evaluation Reports (Techno-Commercial Bid Evaluation report) dated 21.02.2025 and Financial Bid Evaluation dated 25.02.2025 and final evaluation report dated 27.02.2025 are submitted along with the petition.

(6) SECI has submitted the copy of the Conformity Certificates to the effect that, no deviations were made from the Guidelines in the RfS documents. The bid evaluation committee constituted by the SECI also certified that, the bid evaluation was done in conformity with the provisions of RfS documents, and bidding guidelines dated 10.03.2022 and BESS Operational guidelines dated 09.10.2024.

(7) SECI has signed the Battery Energy Storage Purchase Agreement between M/s JSW Renew Energy Thirty Eight Limited, a SPV of the Respondent No.2 on 29.04.2025.

(8) Regarding the trading margin, SECI submitted the following;
   (i) As per the Clause G(4) of the BESS guidelines dated 10.03.2022, the trading margin allowable to the intermediary procurer is Rs 0.07/kWh or 0.50% of the Capacity Charges (as applicable) from

Buying entity/ Procurer for purchase and sale of such energy/ capacity'.

(ii) As per the Clause 3.8 of the 'Operational guidelines for State Component under the Scheme for Viability Gap Funding for development of Battery Energy Storage Systems', the trading margin to be paid to 'BESS Implementing Agencies (BIAs) including payment security, shall be seven paise per kWh of energy discharged. The trading margin payments will be calculated based on the BESS output energy.

(iii) As per the RfS document, the trading margin to be charged by SECI shall be seven paise per kWh of the energy discharged. The trading margin payments will be calculated based on the BESS output energy.

(iv) As per the Article 1.1 of the signed Battery Energy Storage Sale Agreement (BESSA), during the entire term of the agreement, the trading margin payable to SECI is 7 paise of discharged units.

(v) As per the Regulation 8(1)(d) of the CERC (Procedure, Terms and Conditions for grant of trading license and related matters) regulations, 2020, (herein after referred to as Trading Licensee Regulations, 2020) provides as follows;

"For transactions under long term contracts, the trading margin shall be decided mutually between the trading licensee and seller"

The above provisions give choice to the contracting parties to mutually agree on Trading Margin for long-term transactions.

(vi) SECI further submitted that, the RfS document was issued under the VGF based Scheme of implementation of State Component as per BESS Operational Guidelines dated 09.10.2024 read along with the BESS Guidelines dated 10.03.2022 issued by the MoP, GoI, the trading margin has been agreed as Rs 0.07/ kWh on discharged energy in the signed BESSA.

SECI also submitted that, the trading margin is in consonance with the Regulation 8(1) of the Trading Licensee Regulations, 2020, BESS guidelines 2022 and BESS Operational Guidelines 2024.

(vii) SECI requested before the Commission that, in accordance with Section 63 of the EA-2003, the Commission may be pleased to adopt the tariff discovered in the tariff based competitive bidding process for 125MW/ 500 MWh BESS capacity and approve trading margin of Rs 0.07/kWh to be paid by KSEBL to SECI as specified in the signed BESSA.

7. Subsequently, KSEBL vide the submission dated 12.06.2025 submitted the clarifications on the issues raised by the Commission during the hearings, and its summary is given below.

(1) **Definition of APPC**

The Commission during the hearing observed that, the term ‘APPC’ is not defined in the RfS document, though the liquidated damages for RtE in the range of 70% ≤ RtE < 85% are levied at ‘Average Power Purchase Cost (APPC)’.

In this matter, KSEBL conducted a meeting with SECI and M/s JSW Neo Energy Limited on 26.05.2025. During the meeting KSEBL clarified that the term APPC refers to the ‘Average Power Purchase Cost during a financial year, which means the weighted average cost of power purchased by KSEBL including cost of its own generation for the previous financial year. All parties mutually agreed to adopt this definition of APPC.

(2) **Incentive for lesser degradation**

As per Clause 8.1(d)(iv) of the RfS, the annual degradation specified is 2.5%. An incentive of Rs.1.00 per unit has been provisioned for excess energy discharged over and above the minimum dispatchable energy, considering a year-on-year (YoY) capacity degradation of 2%. This incentive becomes applicable after one year from the Commercial Operation Date (CoD).

Accordingly, the minimum dispatchable capacity during the fifth year with the initial capacity is 500 MWh is (500-500*2.5%*5) = 437.5 MWh. The incentive is applicable if BESS deliver more than 450 MWh (500-500*2%*5) in the fifth year. If the BESS is discharged in excess of 450MWh during any day during discharge cycle in the fifth year of operation, the excess discharged units will be eligible for incentive of Rs1/kWh. This will be settled on monthly basis.

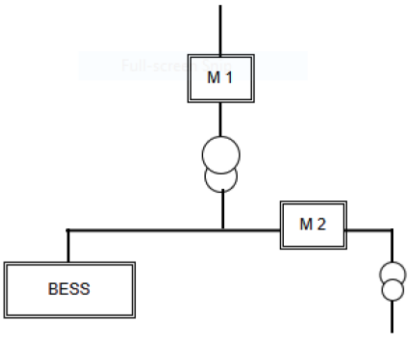
The incentive will not be applicable during discharge cycles where the BESS is not scheduled up to its available maximum capacity. The disbursement of incentives shall be effected along with the monthly bills. This matter was also discussed in the meeting held on 26.05.2025, and all participating parties mutually agreed to the same.

(3) **Measurement of Roundtrip Efficiency (RtE):**

As directed by the Commission during the hearing, a methodology for computing RtE was formulated inorder to avoid future litigations. When the auxiliary power is drawn separately (power is availed through a separate metered connection with KSEBL), the illustration for RtE is provided as follows;

$$\text{RtE} = \frac{\text{Energy Discharged by BESS}}{\text{Energy Consumed for Charging}}$$

In cases where the Auxiliary Power is drawn through the Interconnecting Transformer, and without having a dedicated KSEBL supply for auxiliary consumption, RtE is measured as follows;



Auxiliary Power

M1 – Main Meter at 110 kV,
M_{1E} is Export to Grid & M_1I- Import from grid
M 2 – Meter for measuring Auxiliary Consumption.

$$\text{RtE} = \frac{M_{1E}}{(M_1I - M_2)}$$

(4) KSEBL submitted that the provisions of primary frequency response, dynamic reactive power support, and black start capability are duly included in the present tender.

(5) As directed by the Commission, KSEBL has also submitted the loading details at Mylatti Substation. Its summary are given below.

The day load details at 220 kV Side of 100 MVA Transformer Bank # 1 & #2 are as below:

Charging period

Sl	Time	Bank # 1 (Ampere)	Bank #2 (Ampere)
1	09:00	55	55
2	10:00	63	62
3	11:00	51	52
4	12:00	22	23
5	13:00	28	27
6	14:00	19	19
7	15:00	42	42

Peak Load:

220 kV Feeders,

Ambalathara- Mylatti : 66 A @19:00 Hrs

Thaliparamba-Mylatti : 183 A @ 20:00 Hrs

100 MVA Transformer, 220kV Side

Bank # 1: Day Peak : 86 A @ 06:30 Hrs
Evening Peak : 117 A @ 23: 00 Hrs

Bank # 2: Day Peak : 85 A @ 06:30 Hrs
Evening Peak : 115 A @ 23: 00 Hrs

110 kV Feeders:

Mylatti – Vidya Nagar : 307 A @ 19:00 Hrs
Mylatti – Kanjangad : Idle

110/11kV Transformer @ 110 kV Side

20 MVA #1 : 76 A @ 22:00 Hrs
20 MVA #2 : 63 A @ 23:00 Hrs
12.5 MVA #1 : 15 A @ 23: 00 Hrs

(6) KSEBL further submitted that, with the provision for elongated discharge at reduced power, the discharge power from BESS can be dissipated in the local network itself and can be effectively utilised to manage grid requirements.

Analysis and Decision of the Commission

8. Commission having examined the petitions filed by KSEBL dated 24.02.2025 and 09.04.2025, deliberations during the hearing held on 30.04.2025, provisions of the Electricity Act, 2003, bidding guidelines notified by Ministry Power (MoP), Government of India (GoI) dated 10.03.2022, the Operational Guidelines for State Component under the Scheme for Viability Gap Funding for development of Battery Energy Storage Systems dated 09.10.2024 notified by MoP, GoI, other relevant Rules and Regulations in force, decided on the matter as follows.

9. KSEBL had filed the petitions dated 24.02.2025 and 30.04.2025, before the Commission with the following prayers;

(1) *Grant in-principle approval for the implementation of 125 MW/500 MWh BESS at Mylatti substation under tariff based competitive bid,*

(2) *Adopt the tariff, discovered in the tariff based competitive bid of Rs. 4.41 Lakh / Mw / Month quoted by the firm M/s. JSW Neo Energy Limited (M/s. JSWNEL) as per section 63 of Electricity Act 2003.*

(3) *Approve the trading margin of 7 paise per unit payable to SECI.*

(4) *Approve the BESSA signed by KSEBL with SECI for the procurement of 125 MW500 MWh BESS.”*

10. Commission has examined the prayers of the petitioner as above, and noted the following;

(1) Ministry of Power (MoP), Government of India (GoI) vide the resolution dated 10.03.2022 has notified the 'Guidelines for Procurement and Utilization of Battery Energy Storage Systems as part of Generation, Transmission and Distribution assets, along with Ancillary Services' with the following specific objectives;

"2. Objectives
The specific objectives of these Guidelines are as follows:

a. To facilitate procurement of BESS, as part of individual RE power projects or separately, for addressing the variability/firming power supply / increasing energy output / extending the time of supply from an individual RE project or a portfolio of RE projects, augmentation of existing RE Projects and/or to provide ancillary, grid support and flexibility services for the grid.
b. To facilitate procurement of BESS for optimum utilization of transmission and distribution network.
c. To ensure transparency and fairness in procurement processes/ and to provide for a framework for an Intermediary Procurer as an Aggregator / Trading licensees / Implementing Agency for the inter-state/intra-state sale-purchase of power.
d. To provide standardization and uniformity in processes and a risk-sharing framework between various stakeholders, involved in the energy storage and storage capacity procurement, thereby encouraging competition and enhanced bankability of the Projects."

However, this Guidelines is silent on the financial support in the form of VGF or other means, to be extended by the Central Government for the development of Battery Energy Storage System.

(2) MoP, GoI vide the Order dated 15.03.2024 has sanctioned a budgetary support of Rs 3600.00 crore for the development of 4000MWh BESS capacity. VGF allowed is upto 40% of the capital cost of BESS, and the same shall be fully funded by the Central Government.

(3) Subsequent to the above, MoP, GoI vide the Order dated 11th Ocober-2024 has ordered the following;

"The Central Government has sanctioned the Central Sector Scheme 'Viability Gap Funding (VGF) for Development of Battery Energy Storage Systems (BESS)', hereinafter referred to as 'the scheme' vide letter No. 42-26/1/2022-RCM (Part1) dated 15th March 2024.

2. To enhance the integration of variable energy sources in renewable energy-rich states, the Ministry of Power has issued separate operational guidelines on 8th October 2024 for implementing the State component under the VGF scheme for the development of BESS. These guidelines aim to establish 5,000 MWh of BESS capacity across six states—Rajasthan, Tamil Nadu, Karnataka, Gujarat, Maharashtra, and Telangana—with a budgetary support of Rs 1,350 Cr.

3. For implementing the State component of the Scheme, as per the Operational Guidelines, following entities are hereby designated as the BESS Implementing Agencies (BIAs):

i) NTPC Ltd
ii) Solar Energy Corporation of India Limited,

The states may invite bids either independently or through the above designated BIAs.

4. The BIAs shall comply with the terms and conditions specified in the Operational Guidelines for the state component."

(4) The Central Government vide the notification dated 9th October 2024 has notified the 'Operational Guidelines for **State Component** under the Scheme for Viability Gap Funding for development of Battery Energy Storage Systems. The relevant paragraph of the said guidelines are extracted below for ready reference.

*" 1**. Introduction***

.....

1.5 Presently, more than 70% of Variable Renewable Energy (VRE) capacity is connected at InSTS. Additionally, large capacity of distributed solar may be connected to distribution network under PM KUSUM and PM Surya Ghar Schemes. Therefore, there is a need to support State Utilities in the development of InSTS or distribution network connected BESS to encourage the development of BESS in states with high solar penetration. The State Component of the Scheme aims to facilitate RE rich states in integration of large scale RE within the State.

2*. State Component Overview*

2.1 The definitions shall be as per the scheme guidelines approved on 15th March 2024.

*2.2 **Viability Gap** Funding(VGF): VGF of upto 30% of capital cost for BESS or Rs 27 lakh per MWh whichever is lower, shall be provided by the Central Government under State Component. The VGF shall be a non-recurring expenditure and shall be fully funded from central grant.*

*2.3 **Commissioning Period:** The projects are required to be commissioned within a period as defined in the TBCB Guidelines issued for BESS Projects.*

*2.4 **Eligible Entities.** State Distribution Licensees, State Transmission Utilities and State Generating Companies or the Agencies authorized by them, of the States covered under **Annexure A,** shall be eligible.*

*2.5 **Eligibility.** Eligible Entities are required to invite bids (either by themselves or through BIAs) and sign BESPA within 9 months from the date of issue of these guidelines , to be eligible under the State Component. Capacities, not requested within 60 days from date of issue of these Guidelines or where BESPA is not signed before the time period mentioned above, will be reallocated to other RE rich states.*

*2.6 **Disbursement schedule:** The VGF amount to the eligible projects shall be disbursed in five tranches as detailed below.*

Milestone	*% VGF disbursed*
On financial closure, subject to submission of bank guarantee and possession of 90% of the total land required for the project by the developer	*10*
On Commercial Operation Date (COD)	*45*
Completion of 1st year from COD	*15*
Completion of 2nd year from COD	*15*
Completion of 3rd year from COD	*15*
Total	*100*

2.7 The State Component of the scheme has a budgetary allocation of Rs 1,350 Crore and is aimed at supporting a BESS capacity of 5000 MWh.

3. Implementation Model

3.1 BESS capacity shall be allocated to the States with more than 3 GW installed solar capacity at InSTS level.

3.2 The BESS capacity must have at least of 4-hour discharge duration in a day i.e within 24 Hour period, with any configuration.

3.3 Bidding may be conducted either by eligible entities themselves or by BIAs following a transparent process.

3.4 The bidding documents issued by Central Government under section 63 of Electricity Act namely the Guidelines for Procurement and Utilization of Battery Energy Storage Systems as part of Generation, Transmission and Distribution assets, along with Ancillary Services issued vide Gazette notification dated 10.03.2022, including its subsequent amendments and clarifications, shall be followed.

3.5 States desirous of availing State Component are required to inform their interest to Central Electricity Authority (CEA) within 60 days from the date of issue of these Guidelines, specifying the implementing agency, location(s) and size of BESS capacity planned for implementation. For the BESS projects to be set up through BIA, the request should also be sent to BIA within 60 days from the date of issue of these Guidelines.

3.6 CEA shall submit the report for unutilized capacities and the BESPA not signed, to Ministry of Power, within 15 days from the closing date as per timeline mentioned in clause 2.5 and 3.5.

3.7 The land, InSTS / distribution system required for connecting the BESS capacity and charging power shall be provided by the respective Eligible Entities.

3.8 ***The trading margin to be paid to BIAs, <u>including the cost of providing payment security,</u> shall be seven paise per kWh of energy discharged****. The trading margin payments will be calculated based on the BESS output energy.*

3.9 The payment security mechanism shall be as per Electricity (Late Payment Surcharge & Related matters), Rules 2022 as amended from time to time."

As above, as per the Operational Guidelines of BESS under the State component of VGF dated 09.10.2024, the States have the option to implement the State Component of the Scheme independently or through BIAs. However, if the scheme is implemented through BIA, the trading margin including the cost of providing payment security shall be seven (7) paise per kWh of the energy discharged.

11. Ministry of Power (MoP), Government of India (GoI) vide the order dated 28th November 2024 has sanctioned Rs 135.00 Crore under the State Component of Scheme for Viability Gap Funding for development of BESS for implementing 500MWh BESS capacity to the State of Kerala. The relevant paragraphs of the Order is extracted below.

"

Please refer to the KSEB's letter no. CE (REES)/AEII /BESS/I/559 dated October 10th, 2024 requesting for allocation of 540 MWh BESS capacity for the State of Kerala under the Viability Gap Funding scheme of Government of India for development of BESS.

2. In this regard, I am directed to convey the approval of the competent authority for allocation of 500 MWh BESS capacity to the State of Kerala with a VGF of Rs 27 lakh/MWh or 30% of the capital cost, whichever is lower. This would amount to a total VGF support of Rs 135 Cr. to be disbursed in 5 tranches.

3. This allocation will be considered under the State component of the scheme for which the Operational Guidelines were issued on 9th October, 2024, A copy of the operational guidelines for Implementation of State component under the Scheme for Viability Gap Funding for development of BESS is enclosed, which shall serve as guideline for implementation of the BESS capacity allocated to Kerala. The time line for intimation to CEA and BIAs as well as signing of BESPA for the allocated capacity to Kerala shall start from the date of issuance of this letter instead of date of issuance of the operation guidelines.

4. KSEB is requested to take time bound action for development of BESS capacity under this component in accordance with the operational guidelines as well as other relevant rules, regulations, guidelines etc. issued by Central/State Govt and Regulatory Commissions. <u>In this regard, you are requested to kindly convey your willingness to implement above mentioned capacity under State component of VGF scheme by yourself or through BIA designated by MoP within a week's time."</u>

12. KSEBL has decided to proceed with the implementation of a 125 MW / 500 MWh Battery Energy Storage System (BESS) at Mylatti, supported by a State Component of Viability Gap Funding (VGF) amounting to Rs.135 crores, as sanctioned vide Order No. F. No. 42-26/1/2022-NRE (Pt.III) dated 28th November 2024 of the MoP, GoI.

KSEBL has engaged SECI as the BESS Implementing Agency (BIA) of the Project as per the Order of the MoP, GoI dated 11.10.2024.

SECI has floated the tender for the project on 20th December 2024 in compliance with the Bidding guidelines dated 10th March 2022 read with the BESS Operational Guidelines dated 09.10.2024, both issued by the Ministry of Power, GoI.

SECI vide the provisional conformity certificate dated 14.01.2025 certified that, 'applicable guidelines and amendments/ clarifications thereof, if any, issued by the Government of India are followed for the bidding process in the above tender and as on issuing date, no deviation has been taken from the applicable Guidelines in the RfS document for the above tender.

13. The last date of the online submission of the bid was on 10.02.2024 and the Techno Commercial part of the bid was opened on 13.02.2025. Total seven bidders participated in the bidding process and all of them were qualified. All the bidders submitted the financial bids. Subsequently, in line with the bidding guidelines, financial bids were opened, followed by e-Reverse Auction (e-RA) process. **Through the e-Reverse auction, M/s JSW Neo Energy Limited emerged as the L1 bid, quoted Rs 4.41 Lakh/MW/ Month as capacity charges**.

14. SECI has submitted the copies of the Techno-Commercial Bid Evaluation Committee report dated 21.02.2025, copies of the Financial bid evaluation and shortlisting of bidders for e-Reverse Auction dated 25.02.2025. SECI has also submitted the copies of the final evaluation report after the e-Reverse Auction and the recommendations for placement of LoAs for the selected project under RfS dated 27.02.2025.

15. After the conclusion of the e-Reverse Auction, on 20.03.2025, SECI issued LoA to the successful bidder **M/s JSW Neo Energy Limited for implementing the BESS project at the quoted tariff of Rs 4.41 Lakh/MW/ Month as capacity charges**.

16. SECI and KSEBL signed the Battery Energy Storage Sale Agreement (BESSA) on 10.04.2025 for the sale of 125MW/ 500 MWh BESS capacity on long term basis, to comply with the time frame stipulated in the Bidding Guidelines dated 10.03.2022 and the Operational Guidelines dated 09.10.2024 issued by the MoP, GoI.

    Further, on 29.04.2025, SECI has also signed the Battery Energy Storage Purchase Agreement (BESPA) with M/s JSW neo Renew Energy Thirty Eight Limited, the SPV formed by the L1 bidder for the implementation of the project.

17. The Commission has examined the bidding process for implementing the 125MW/ 500MWh Battery Energy Storage System at Mylatti, Kasargod by utilising the VGF of Rs 135.00 crore sanctioned by the MoP, GoI vide the Order dated 28th November 2024. The bidding was done by the BESS Implementing Agency (BIA) on behalf of KSEBL.

    SECI vide the certificate dated 14.01.2025 certified that, the bidding documents was prepared as per the applicable guidelines issued by the MoP, GoI for the bidding of BESS projects under State component of the Scheme of Viability Gap Funding.

    The Bid Evaluation Committee constituted by SECI after the completion of the bidding process, has certified vide the certificates dated 21.02.2025, 25.02.2025 and 27.02.2025 that, the Techno-Commercial bid evaluation, Financial bid evaluation and the Final bid evaluation of the bids, were carried out as per the provisions of the RfS, and the Bidding Guidelines dated 10.02.2022 and Operational Guidelines dated 09.10.2024 notified by the MoP, GoI.

SECI and KSEBL had signed the Battery Energy Storage Sale Agreement (BESSA) on 10.04.2025. Further, SECI and M/s JSW neo Renew Energy Thirty Eight Limited, the SPV formed by the L1 bidder for the implementation of the project has signed the Battery Energy Storage Purchase Agreement (BESPA) on 29.04.2025.

KSEBL submitted that, by implementing the project, the internal power handling capacity of the state will increase by 125MW. Further the storage scheme will help to store energy to the extent of 500MWh (0.5 MU/day) for meeting peak power Requirements. The storage system will directly replace equal quantum of peak power purchase from the Power Exchange and payment for BESS can be made from the Savings effected in peak power purchase.

KSEBL further submitted that, the proposed BSS project does not require any upfront capital investment from the licensee. Payments will commence only after one month of COD and will offset by savings in peak power purchase costs. The project, therefore, offers a financially sustainable solution for addressing the State's peak demand challenges while augmenting internal power storage capacity.

The Mylatti substation of KSEBL was strategically selected for the project. Kasargod district lacks significant local generation facilities except the 100MW solar park. The district experiences grid fluctuations due to the existing 100MW solar park. The site is at the northern most part of the State, coupled with its lack of ISTS connectivity make its ideal location for the proposed BESS. This project also address the transmission constraints in the district.

Considering all these factors, KSEB Ltd requested before the Commission to grant approval for the implementation of 125 MW/ 500 MWh BESS at Mylatti substation under tariff based competitive bid and adopt the tariff discovered under tariff based competitive bidding as per the provisions of section 63 of Electricity Act 2003.

18. **The Commission after examining the entire aspects in details, hereby approve the first two prayers of the KSEBL, the details are given below.**

(1) Ratify the action of KSEBL for initiating the bidding process of implementation of the 125 MW/ 500MWh BESS project at Myalatti, Kasargod, by utilising the VGF of Rs 135.00 Crore sanctioned by the MoP, GoI vide the Order dated 28th November 2024 under the 'State component of Scheme for Viability Gap Funding for development of BESS'.

(2) **Adopt the tariff, discovered in the *tariff based competitive bid of Rs. 4.41 Lakh / MW/ Month quoted by the firm M/s. JSW Neo Energy Limited (M/s. JSWNEL) as per section 63 of Electricity Act 2003.***

19. KSEBL has also requested before the Commission to approve the trading margin of 7 paise per unit payable to SECI as the BESS Implementing Agency (BIA). In this matter, the Commission noted the following;

(1) As per the Article 1.1 of the Batter Energy Storage Sale Agreement (BESSA) signed between SECI and KSEBL dated 10.04.2025 provide as follows;

*"The tariff applicable for the sale of BESS capacity by SECI to Buying Entity under this Agreement shall be the Tariff as applicable for payment by SECI to BESSD under the terms of the BESPA and SECI and the BESSD tariff fixed for the entire term of agreement at delivery point and in addition thereto **SECI's Trading Margin of 7 paise of Discharged Units(as recorded in Joint Meter Reading)** and any taxes and duties including GST (if applicable) for making BESS capacity available to the Buying Entity to SECI over and above the Applicable Tariff under BESPA'.*

As above, in terms of the signed BESSA between SECI and KSEBL, the buying entity KSEBL agreed for the trading margin of 7 paise per unit of the discharged unit to the BESS Implementing Agency(BIA) M/s SECI.

(2) The Commission has also examined the provisions of the trading margin in the prevailing Regulations notified by the CERC and also the BESS bidding guidelines dated 10.03.2022 and BESS operational guidelines dated 09.10.2024. The relevant provisions are discussed below.

(i) Regulation 8(1)(d) of the CERC (Procedure, Terms and Conditions for grant of trading license and related matters) regulations, 2020, (herein after referred to as Trading Licensee Regulations, 2020) provides as follows;

"8(1) (d) For transactions under long term contracts, the trading margin shall be decided mutually between the Trading Licensee and the seller:

Provided that in contracts where escrow arrangement or irrevocable, unconditional and revolving letter of credit as specified in clause (10) of Regulation 9 is not provided by the Trading Licensee in favour of the seller, the Trading Licensee shall not charge trading margin exceeding two (2.0) paise/kWh."

As above, as per the CERC Trading Licensee Regulations, 2020, the trading licensee and the other party can mutually agreed for the trading margin.

(ii) The Clause G(4) of the Guidelines for Procurement and Utilization of Battery Energy Storage Systems as part of Generation, Transmission and Distribution assets, along with Ancillary Services dated 10.03.2022 notified by MoP, GoI provide as follows.

*“ **G(**4). The Intermediary Procurer shall enter into the Battery Storage Purchase Agreement (BESPA) / Power Purchase Agreement with the Developer(s) and enter into a Battery Storage Sale Agreement (BESSA) /Power Sale Agreement with the distribution licensee(s)/ consumer(s). The BESSA shall contain the relevant provisions of the BESPA on a back-to-back basis. The Intermediary Procurer shall be entitled to charge trading margin of seven paise/kWh or 0.5% of the Capacity Charges (as applicable) from the Buying entity / Procurer for purchase and sale of such energy/capacity.”*

.

As above, as per the Bidding Guidelines, the maximum trading margin can be claimed by the trading licensee from the Buying entity is 7 paise per unit.

(iii) The Clause 3.8 of the ‘Operational guidelines for State Component under the Scheme for Viability Gap Funding for development of Battery Energy Storage Systems’, provide as follows;

“ 3.8 The trading margin to be paid to BIAs, including the cost of providing payment security, shall be seven paise per kWh of energy discharged. The trading margin payments will be calculated based on the BESS output energy.”

20. In the instant case, the trading margin claimed by SECI @Rs 0.07/unit for the energy output from the BESS project, for the entire period of 12 years from the date of commissioning of the project.

The approximate amount of trading margin payable to SECI during the entire life of the four BESS projects with total capacity 125MW/ 500 MWh would be about 14 crore.

Commission further noted that, the role of SECI is limited to the initial process of bidding and awarding the contract to the BESS developers on behalf of the buying entity, and also to monitor the performance of the BESS project. The charging power also is arranged by the buying entity KSEBL at its risk.

Commission is of the view that, considering the limited efforts and involvement of SECI in the project, the trading margin claimed by SECI is excessively high.

21. Regarding the trading margin, Central Commission through its various orders clarified that, trading margin @7 paise per unit is the ceiling rate as per the BESS Bidding Guidelines dated 10th March 2022 notified by the MoP, GoI. In this matter, the paragraphs 55 to 57 of the Order dated 16th May 2024 in Petition No. 249/MP/2013 is extracted below.

"55. The Commission, during the course of the hearing, enquired about providing only one trading margin either at Rs 0.07/kWh or 0.5% of the capacity charge envisaged in the BESS guidelines issued by the MoP. SECI, in its reply, has submitted that the intermediary agency is entitled to 0.5% of the capacity charge discovered through the bid process from the end procurer. The additional trading margin of Rs. 0.07/kWh corresponds to the additional responsibility of charging and discharging the BESS capacity through market operations.

56. The Commission notes that though the MoP guidelines do not envisage the responsibility for SECI to charge and discharge the ancillary potion of the BESS capacity, providing an additional trading margin of Rs. 0.07/kwh would result in an additional financial burden on the statutory DSM and Ancillary Services Pool Account and also tantamount to double payment of trading margin for the same quantum of power. In fact, to avoid such instances of double payment, the Central Electricity Regulatory Commission (Procedure, Terms, and Conditions for grant of trading licence and other related matters) Regulations, 2020 ("Trading Regulations, 2020") provided in Regulation 8(2) as under:

> *(2) The trading margin specified under these regulations shall be the cumulative value of the trading margin charged by all the traders involved in the chain of transactions between the generator and the ultimate buyer, that is to say, trading margin in case of multiple trader-to-trader transactions and shall not exceed the ceiling of trading margin specified under these regulations.*

57. The Commission also notes that the Commission fixes only the ceiling of trading margin, and within the ceiling the contracting parties, are expected to make mutual agreement for the trading margin to be paid/received, subject to the provisions of the Trading Regulations, 2020. The instant case being a pilot project, it would be in the interest of the power sector to optimise cost wherever possible.. In view of the above discussion and in line with Regulations 8(2) of the Trading Regulations, 2020, the Commission hereby directs that for the quantum of power earmarked for Ancillary Services, Respondent No. 2 shall be entitled to charge trading margin such that the cumulative value of the trading margin (i.e. the trading margin of 0.5% of the Capacity Charge plus the additional trading margin towards charging and discharging of BESS) should not exceed Rs. 0.07/kWh. Further, in case charging of power is arranged through ancillary services by the Petitioner, no additional trading margin (over and above the 0.5% of the Capacity Charge) shall be payable to the Respondent No.2. "

22. As detailed in the preceding paragraphs, KSEBL has been implementing the 125 MW / 500 MWh BESS under the 'State component of Scheme for Viability Gap Funding for development of Battery Energy Storage System'. KSEBL as the distribution licensee has been arranging the charging power at its own risk and cost.

23. But KSEBL has decided to engage SECI ast he BESS Implementing Agency for the project, and SECI has floated the bid and concluded the bidding process on behalf of KSEBL as per the BESS Bidding guidelines dated 10.03.2022 and BESS operational guidelines dated 09.10.2024. Further, SECI had entered into the Battery Energy Storage Purchase Agreement (BESPA) dated 29.04.2025

with the with M/s JSW neo Renew Energy Thirty Eight Limited, the SPV formed by the L1 bidder for the implementation of the project.

Further as per the Clause 3.8 of the Operational guidelines for State Component under the Scheme for Viability Gap Funding for development of Battery Energy Storage Systems, SECI is eligible to claim Rs 0.07/unit as trading margin including the cost of providing security to the seller M/s M/s JSW neo Renew Energy Thirty Eight Limited.

The Commission also noted that, in the present case, KSEBL has agreed to a trading margin of Rs 0.07/kWh in the BESSA signed with SECI dated 10.04.2024, which is the trading margin specified in the Clause 3.8 of the BESS Operational guidelines dated 09.10.2024, which is inclusive of the cost of providing payment security. However, it is not clearly specified in the BESSA signed between SECI and KSEBL dated 10.04.2025 that, the trading margin specified therein is inclusive of the cost of providing payment security to the seller also.

Hence, in order to avoid dispute is future, the Commission hereby direct the SECI and KSEBL to make suitable amendment in the Article 1.1 of the BESSA dated 10.04.2025, the trading margin of Rs 0.07/kWh is inclusive of the cost of providing payment security to the BESS developer M/s JSW Neo Energy Limited.

With the above observation and direction, the Commission hereby approve the trading margin of Rs 0.07/unit payable to SECI by KSEBL, of the energy discharged from the 125MW/ 500MWh BESS project at Mylatti, Kasargod.

24. However, the Commission hereby clarify that, the approval of trading margin @7 paise per unit of the BESS output cannot be quoted as a precedent in future. KSEBL has the responsibility to optimise the cost of BESS output cost to the possible extent. Hence, the Commission hereby direct that, in future, KSEBL shall negotiate with the BESS Implementing Agencies (BIAs)/ Intermediary Procurer to reduce the trading margin strictly as per the provisions of the Bidding Guidelines for the implementation of the BESS projects, notified by MoP, GoI dated 10.03.2022 under Section 63 of the EA-2003.

25. KSEBL vide the additional submission dated 30.04.2025 has submitted a copy of the Battey Energy Storage Sale Agreement dated 10.04.2025, signed between SECI and KSEBL, for the 125MW/ 500MWh BESS project at Mylatti, Kasargod. KSEBL further submitted that, the agreement was signed for complying with the timelines specified in the BESS operational guidelines dated 09.10.2024, for implementing the State Component under the Scheme for Viability Gap Funding for development of Battery Energy Storge Systems'.

KSEBL has also prayed before the Commission to approve the BESSA signed by KSEBL with SECI dated 10.04.2025 for the procurement of 125MW/ 500MWh BESS capacity on long term basis.

The Commission has examined the BESSA signed between SECI and KSEBL dated 10.04.2025. The Commission during the hearing held on 30.04.2025 had sought clarifications on the following clauses/ issues in the signed BESSA.

(1) Average Cost of Power Purchase. The Commission noted that, in the Clause 2.11.4 (b) of the BESSA signed between SECI and KSEBL dated 10.04.2025, and also as per the Clause 4.4.2 of the BESPA dated 29.04.2025 signed between the SECI and BESSD, the liquidated damages maintaining the Round trip Efficiency below 70% is levied based on the APPC. However, the term APPC was not defined in the RfS, BESSA and BESPA signed between the parties. Hence the Commission has directed KSEBL to include clarifications on the APPC in the agreements BESSA and BESPA signed between the parties by suitably amending the same.

KSEBL vide the additional submission dated 12.06.2025 has submitted that, the matter was discussed between the SECI and M/s JSW Neo Energy Limited in the meeting held on 26.05.2025., and decided that, 'Average Power Purchase Cost ' or 'APPC' during a year means the weighted average cost of the power purchased by KSEBL including the cost of self generation by KSEBL. The parties agreed to adopt the definition of APPC as above in the agreements.

(2) Commission has directed KSEBL to clarify the methodology adopted for assessing the incentive for lesser degradation.

KSEBL vide the additional submission dated 12.06.2025 has submitted that, this matter also discussed in the meeting held on 26.05.2025 between M/s SECI and M/s JSW Neo Energy Limited, and clarified as follows;

"As per Clause 8.1(d)(iv) of the RfS, the annual degradation specified is 2.5%. An incentive of Rs.1.00 per unit has been provisioned for excess energy discharged over and above the minimum dispatchable energy, considering a year-on-year (YoY) capacity degradation of 2%. This incentive becomes applicable after one year from the Commercial Operation Date (CoD).

Accordingly, the minimum dispatchable capacity during the fifth year with the initial capacity is 500 MWh is (500-500*2.5%*5) = 437.5 MWh. The incentive is applicable if BESS deliver more than 450 MWh (500-500*2%*5) in the fifth year. If the BESS is discharged in excess of 450MWh during any day during discharge cycle in the fifth year of operation, the excess discharged units will be eligible for incentive of Rs1/kWh. This will be settled on monthly basis.

The incentive will not be applicable during discharge cycles where the BESS is not scheduled up to its available maximum capacity. The disbursement of incentives shall be effected along with the monthly bills. This matter was also discussed in the meeting held on 26.05.2025, and all participating parties mutually agreed to the same."

(3) The Commission has also directed the parties to provide measurement of Round trip Efficiency' especially when the charging and discharging is being done on different days.

KSEBL vide the additional submission dated 12.06.2025 submitted that, this matter also discussed in the meeting with SECI and M/s JSW Neo Energy Limited on 26.05.2025 and formulated a methodology for measurement of RtE, and the same was extracted under paragraph 7(3) of this Order.

26. The Commission hereby direct the KSEBL and SECI to include the above clarification as a supplementary agreement to the original BESSA signed between SECI and KSEBL. This supplementary agreement also shall form part of the BESPA dated 29.04.2025 signed between the SECI and M/s JSW Neo Renew Energy Thirty Eight Limited, the SPV formed by the L1 bidder for the implementation of the project.

With the above observations, the Commission hereby approve the Battery Energy Storage Sale Agreement (BESSA) dated 10.04.2025 signed between SECI and KSEBL.

Order of the Commission

27. Commission after examining the petitions filed by KSEBL dated 24.02.2025 and 09.04.2025, deliberations during the hearing held on 30.04.2025, provisions of the Electricity Act, 2003, bidding guidelines notified by Ministry Power, Government of India dated 10.03.2022, the Operational Guidelines for State Component under the Scheme for Viability Gap Funding for development of Battery Energy Storage Systems, other relevant Rules and Regulations in force, hereby Orders the following;

(1) Ratify the action of KSEBL for initiating the bidding process for implementation of the 125 MW/ 500MWh BESS project at Myalatti, Kasargod, by utilising the VGF of Rs 135.00 Crore sanctioned by the MoP, GoI vide the Order dated 28th November 2024 under the 'State component of Scheme for Viability Gap Funding for development of BESS'.

(2) Adopt the tariff, discovered in the tariff based competitive bid of Rs. 4.41 Lakh / MW/ Month quoted by the firm M/s. JSW Neo Energy Limited (M/s. JSWNEL) as per section 63 of Electricity Act 2003.

(3) Approve the trading margin of Rs 0.07/kWh payable by KSEBL to the BESS Implementing Agency (BIA) SECI, including the cost of providing security to the Battery Energy Storage System Developer (BESSD) by SECI.

SECI and KSEBL shall make suitable amendment in the Article 1.1 of the BESSA dated 10.04.2025, to clarify that the trading margin of Rs

0.07/kWh is inclusive of the cost of providing payment security to the BESSD.

(4) Approve the Battery Energy Storage Sale Agreement (BESSA) dated 10.04.2025 signed between SECI and KSEBL, with the observation and directions given under paragraphs 25 and 26 of this Order.

The petitions OP No. 23 of 2025 and 24 of 2025 stands disposed of. Ordered accordingly.

Sd/-
Adv. A J Wilson
Member

Sd/-
B Pradeep
Member

Approved for issue

Sd/-
Mohanakumar B V
Secretary(I/C)