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KSEBL/TRAC/ CG/ Capacity Market/2026-27/ Dated: 27/05/2026

To

The Secretary,

Central Electricity Regulatory Commission

New Delhi

Sir,

Sub: Comments/Remarks of KSEBL on the Staff Paper on "Capacity Market for Electricity in India" issued by the Staff of CERC – reg.

Ref:

1. CERC Public Notice No. RA-14027(12)/1/2026-CERC dated 29.04.2026
2. Staff Paper on "Capacity Market for Electricity in India"

Kind attention is invited to the Staff Paper on "Capacity Market for Electricity in India" prepared by the Staff of the Central Electricity Regulatory Commission (CERC), wherein various models of Capacity Market, Reserve Capacity Market and Secondary Capacity Market have been proposed for discussion and stakeholder consultation.

In this connection, Kerala State Electricity Board Limited (KSEBL) has examined the proposals contained in the Staff Paper in detail. KSEBL appreciates the efforts made by the Commission in initiating discussions on long-term resource adequacy, reserve sufficiency, grid security and efficient market design, especially in the backdrop of increasing renewable energy penetration, storage integration and rising peak demand in the country.

The Staff Paper itself recognizes that, in India, long-term Power Purchase Agreements (PPAs) inherently function as capacity contracts wherein generators are assured recovery of fixed charges based on availability and beneficiaries retain scheduling rights over contracted capacity. In the Indian context, the long-term PPA framework has historically played a crucial role in ensuring investment certainty, supply security and long-term resource planning. Therefore, any transition from the existing framework towards a market-linked capacity mechanism requires extremely careful evaluation, as the same may have far-reaching financial, operational and regulatory consequences for distribution licensees and consumers.

KSEBL submits that one of the major concerns arising from the proposed framework is the possibility of "double payment" by distribution licensees. The Staff Paper itself identifies concerns regarding simultaneous payment of capacity remuneration through the capacity market and payment of Market Clearing Price (MCP) through the energy market. In the Indian scenario, where most State utilities are already burdened with substantial fixed cost commitments under long-term PPAs, introduction of an additional capacity remuneration mechanism may significantly increase the financial burden on DISCOMS and ultimately on retail consumers. The proposed market structure may expose utilities to both fixed capacity liabilities and volatile short-term market prices simultaneously, thereby increasing procurement uncertainty and tariff risk.

Further, the proposal that both generators and DISCOMS should bid into the Day Ahead Market (DAM) and Real Time Market (RTM), while limiting the effective dispatch rights of beneficiaries, requires detailed examination. For a State like Kerala, which has a hydro-dominant system with significant renewable energy integration and strong seasonal variations, operational flexibility and scheduling rights are extremely important for prudent system management. Kerala's power system is characterized by substantial dependence on hydro generation during monsoon periods, increasing solar penetration during daytime, and steep evening peak demand requirements. Under such conditions, retaining flexibility in scheduling and dispatch is essential for ensuring grid security, hydro optimization, reserve management and economical power procurement. Excessive dependence on market-based dispatch may reduce the ability

of the State utility to undertake optimal hydro-thermal coordination and may expose the system to avoidable operational risks.

The Staff Paper has also discussed the issue of reserve inadequacy in the Indian power system and the operational challenges arising during high renewable generation periods when thermal stations operate at minimum technical limits. KSEBL agrees that strengthening reserve and ancillary service frameworks is important for maintaining grid reliability and system security in the evolving electricity sector. However, KSEBL submits that the immediate focus should be on strengthening implementation of the existing Resource Adequacy (RA) framework already developed by the Ministry of Power, CEA and Grid-India, rather than introducing an entirely new market architecture at this stage.

The existing RA framework already mandates long-term demand forecasting, optimal resource planning and reserve assessment by States and distribution licensees. Significant efforts are currently underway across the country for implementation of RA studies and planning exercises. Therefore, strengthening compliance with the existing RA framework, improving forecasting accuracy, enhancing ancillary services procurement and ensuring adequate reserve allocation may presently be a more practical and less disruptive approach compared to introducing a separate Capacity Market framework.

KSEBL further submits that hydro-rich states like Kerala inherently contribute valuable balancing support and system flexibility to the national grid through flexible hydro operations, ramping capability and reserve support. Such contributions are not fully captured in a conventional capacity market framework based primarily on capacity remuneration. Therefore, any future market design must appropriately recognize the value of hydro flexibility, fast response capability and balancing support provided by hydro-dominant systems.

With regard to the proposed Reserve Capacity Market, KSEBL submits that centralized reserve procurement by NLDC on behalf of reserve-deficient States may be considered only as a temporary transitional arrangement during periods of genuine reserve shortage. However, the methodology for reserve allocation, reserve deficiency

assessment and cost sharing requires extensive stakeholder consultation, especially considering the diversity in demand profiles, generation mix and operational characteristics among different States.

KSEBL also notes the proposal for creation of a Secondary Short-Term Capacity Market for trading surplus contracted capacity. In principle, limited mechanisms for exchange of surplus capacity among utilities may improve overall system efficiency and optimize utilization of existing resources. However, such mechanisms should initially be introduced only in a phased and carefully regulated manner with appropriate safeguards against speculative trading, market concentration, gaming and excessive financial exposure to utilities.

KSEBL respectfully submits that introduction of a Capacity Market in India would involve major changes in the existing electricity market structure, contractual arrangements and operational philosophy of the power sector. Therefore, before considering implementation of such a framework, detailed studies may be conducted regarding:

(i) Impact on retail tariff and consumer interest,

(ii) Interaction with existing long-term PPAs,

(iii) Implications for State utilities,

(iv) Impact on hydro and renewable-rich systems,

(v) Transmission congestion and network constraints,

(vi) Market concentration and gaming risks,

(vii) Financial viability of distribution licensees, and

(viii) Legal and regulatory transition requirements.

KSEBL therefore requests that any future roadmap for Capacity Market implementation in India may be undertaken only after comprehensive stakeholder consultation, pilot studies, detailed market simulations and phased implementation strategies. At the present stage, strengthening the existing Resource Adequacy framework, Ancillary Services mechanism, DSM framework and reserve procurement

systems may be a more prudent and practical approach for ensuring long-term reliability and grid security in the Indian power sector.

The above remarks are submitted for kind consideration.

Yours faithfully,




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