TAMIL NADU POWER DISTRIBUTION CORPORATION LTD

From

Thiru R.Krishnaswami, M.Com.,ACA,
Chief Financial Controller / Regulatory Cell,
7th Floor, Western Wing,
144, Anna Salai,
Chennai - 600 002.

To
The Secretary,
Central Electricity Regulatory Commission,
6th, 7th & 8th Floors, Tower B, World Trade Centre,,
Nauroji Nagar,
New Delhi-110029

Lr. No. CFC/RC/SE/CERC/EE1/ F. CERC- Capacity Market/D 137/26 dt: 16.06.2026

Sir,

Sub: TNPDCL- CERC -Staff Paper on "Capacity Market for Electricity in India"– Comments and views of TNPDCL - Submission– Regarding.

Ref: Staff Paper on "Capacity Market for Electricity in India- April 2026

******

Adverting to the above reference, the comments and views of TNPDCL on the Staff Paper on "Capacity Market for Electricity in India" are submitted in the annexure enclosed. It is requested that the observations /comments and suggestions of TNPDCL may kindly be taken into consideration while finalizing the draft regulation/procedures for "Capacity Market for Electricity in India".

Encl.: As above

Yours faithfully,

R. Krishnaswami
16.06.2026

Chief Financial Controller /
Regulatory Cell

Annexure

TNPDCL Comments on Staff Paper on Capacity Market for Electricity in India

TNPDCL submits that the proposed Capacity Market framework represents a significant departure from India's existing electricity market structure, where Resource Adequacy (RA) is already addressed through long-term PPAs, statutory planning obligations, and the evolving Resource Adequacy framework. Unlike energy-only markets in several international jurisdictions, India already provides investment certainty through long-term contracting arrangements.

The primary challenge facing the Indian power sector is not a shortage of installed capacity but the availability of flexible resources, reserves, storage, and ancillary services required to manage increasing renewable penetration. Accordingly, introduction of a parallel capacity market may increase consumer costs, duplicate existing mechanisms, and create additional financial risks without delivering commensurate reliability benefits.

In this context, the following comments and views are submitted on various options proposed in the staff paper:

A. Capacity Market for RA / Capacity Obligation

Option 1: RA Obligation Capacity Market

Comments and views:

(i) Duplication of Existing Resource Adequacy Framework

The proposed market duplicates the objectives of the existing Resource Adequacy framework, which already requires Discoms to undertake demand forecasting, reserve planning, and long-term capacity procurement. It creates an additional layer of compliance, settlement, and market administration without addressing any identified gap in the current framework.

(ii) Additional Financial Burden on Consumers

Discoms would be required to pay long-term capacity charges while continuing to procure energy through DAM/RTM. This may expose consumers to multiple cost components, including capacity payments, energy market costs, ancillary service charges, DSM liabilities, and transmission charges, thereby increasing overall procurement costs and retail tariffs.

(iii) Risk of Double Payment

The framework may result in generators receiving both assured capacity remuneration and energy market revenues. Unless a transparent netting-off mechanism is established, consumers may effectively pay twice—once for capacity availability and again for energy supplied.

(iv) Erosion of State Discom Autonomy

Power procurement is a statutory responsibility of State Discoms based on approved Resource Adequacy plans and State-specific requirements. The proposed centralized capacity procurement framework may dilute the flexibility of Discoms to determine the most appropriate resource mix for their consumers.

(v) Exposure to Market Risks

Despite entering into long-term capacity arrangements, Discoms would remain exposed to MCP volatility, congestion risks, balancing costs, forecasting errors, and settlement uncertainties, effectively transferring market risks to consumers.

(vi) Distortionary Market Design

The proposal to place buyer demand curves above the market price cap to ensure access to contracted capacity may distort price discovery, artificially influence market outcomes, and increase procurement costs.

(vii) Penalty Framework May Increase Capacity Charges

Mandatory market participation and penalties for non-clearance during stress periods are likely to be reflected in bid prices through risk premiums, resulting in higher capacity charges and consumer tariffs.

(viii) Risk of Over-Procurement

With substantial renewable energy and Battery Energy Storage System (BESS) additions planned, future adequacy concerns are likely to be related to flexibility and reserves rather than installed capacity shortages. Long-term capacity obligations may therefore lead to surplus capacity, stranded assets, and avoidable fixed-cost commitments.

(ix) Need to Prioritize Flexibility Solutions

Instead of introducing a long-term capacity market, regulatory efforts should focus on strengthening Resource Adequacy implementation, Ancillary Service Markets, Battery Energy Storage Systems, Demand Response programs, flexibility procurement mechanisms, and seasonal reserve products.

In view of the above concerns, TNPDCL submits that the proposed RA Obligation Capacity Market (Option 1) is neither necessary nor justified under current Indian market conditions and should not be adopted.

Option 2: RA Obligation Capacity Market

While the proposal retains the existing two-part tariff structure, it fundamentally alters dispatch arrangements by mandating market-based dispatch and settlement.

Key concerns include:

- Existing PPAs already ensure resource adequacy and financing certainty.

- Discoms continue to bear fixed-cost obligations while losing effective dispatch control.
- Market and bilateral settlement arrangements significantly increase administrative complexity.
- Consumers remain exposed to MCP volatility, congestion impacts, and other market risks.

The existing long-term contracting framework is better suited to Indian market conditions and hence option 2 should not be adopted.

Option 3: Residual RA Obligation Capacity Market

TNPDCL submits that although Option 3 is comparatively less intrusive than Options 1 and 2, it should not be construed as support for centralized capacity procurement. Resource Adequacy planning and procurement are statutory responsibilities of Distribution Licensees and must remain so. Any residual capacity mechanism should operate strictly as an emergency backstop and be triggered only after establishing a genuine Resource Adequacy shortfall that cannot be addressed through existing contracts, bilateral procurement, secondary market transactions, storage resources, demand response, or short-term power markets. The mechanism should not become a routine procurement avenue for entities that fail to undertake prudent long-term planning.

TNPDCL strongly opposes any socialization of costs arising from such procurement. The entire cost, together with appropriate regulatory disincentives, should be borne exclusively by entities responsible for the shortfall. Further, procurement of new capacity should be considered only after exhausting available surplus contracted capacity and existing flexibility resources, including hydro, storage, and demand response. Without such safeguards, the mechanism could create moral hazard, weaken procurement discipline, undermine State autonomy, and ultimately transfer the consequences of inadequate planning to compliant utilities and consumers.

B. Reserve Capacity Market

The importance of maintaining adequate reserves for grid security, renewable integration, and system reliability is recognized. However, the proposed Reserve Capacity Market should be considered only as a transitional measure until Resource Adequacy obligations and reserve requirements are effectively implemented across all States.

(i) Reserve Deficiency is Primarily an RA Implementation Issue

Reserve shortages arise mainly due to inadequate implementation of Resource Adequacy requirements and reserve procurement obligations. The regulatory focus should therefore be on strengthening compliance and enforcement.

(ii) Transitional Mechanism Only

The Reserve Capacity Market should not become a permanent parallel remuneration framework. It should include:

- Periodic review;
- Clear performance evaluation; and
- A sunset provision linked to RA implementation.

(iii) Risk of Over-Procurement

Annual reserve procurement may lead to excess reserve commitments and higher consumer costs, particularly given the dynamic nature of reserve requirements.

(iv) Net-CONE Methodology Requires Careful Validation

Given the evolving nature of Ancillary Service Markets in India, determination of Net-CONE may be highly assumption-dependent and could result in over-compensation if not rigorously validated.

(v) Cost-Causation Principle Must Apply

Reserve procurement costs should be recovered only from entities responsible for reserve deficiencies and should not be socialized across compliant States and utilities.

(vi) Existing Resources Should Be Prioritized

Before creating new reserve remuneration mechanisms, priority should be given to:

- Flexible thermal generation;
- Hydro resources;
- Pumped storage;
- Battery Energy Storage Systems;
- Demand response; and
- Existing ancillary service providers.

The Reserve Capacity Market may be considered only as a temporary reliability measure, subject to periodic review, cost-causation principles, and eventual phase-out upon full implementation of Resource Adequacy obligations.

C. Secondary Short-Term Capacity Market (Existing Capacities)

TNPDCL acknowledges that efficient utilization of existing surplus capacity can contribute to overall system efficiency and improve short-term balancing of resources. However, the proposed Secondary Short-Term Capacity Market should be designed strictly as a supplementary mechanism for optimizing existing contracted capacities and must not evolve into a substitute for Resource Adequacy planning or long-term procurement by Distribution Licensees. Given that the Indian power sector is not confronted with a structural shortage of installed capacity, but rather with challenges relating to efficient resource utilization and flexibility, the concept is relatively more relevant than a long-term Capacity Obligation Market. Nevertheless, participation should

remain entirely voluntary, and the sanctity of existing PPAs, contractual rights, scheduling rights, and regulatory approvals must be fully preserved.

Option 1

Option 1 is not considered justified under the prevailing Indian market conditions for the following reasons:

- It replicates many concerns associated with RA Capacity Market Option 1.
- It separates capacity and energy procurement.
- It exposes Discoms to additional market risks and settlement complexity.
- The proposal to place demand curves above price caps may distort market outcomes.
- Penalty provisions are likely to increase bid prices and consumer costs.

Option 2

Option 2 is relatively more suitable because:

- Buyers retain priority scheduling rights.
- Existing contractual structures are largely preserved.
- Surplus capacity can be efficiently monetized.
- Resource utilization across regions can be improved.

However, implementation should be through existing power exchange platforms with adequate safeguards against market manipulation, capacity hoarding, and abuse of market power.

TNPDCL supports the concept of a Secondary Short-Term Capacity Market in principle, with preference for Option 2 over Option 1, subject to detailed market design, consumer impact assessment, and preservation of contractual rights.

Conclusion

In view of the foregoing, TNPDCL submits that the proposed long-term Capacity Market mechanisms are neither warranted nor appropriate under the prevailing Indian electricity market structure, where Resource Adequacy is already addressed through statutory planning obligations and long-term contracting arrangements.

Accordingly, TNPDCL recommends that:

1. **RA Obligation Capacity Market (Option 1)** should not be adopted, as it duplicates the existing Resource Adequacy framework, imposes additional financial liabilities on consumers, and transfers market risks to Distribution Licensees without demonstrable reliability benefits.
2. **RA Obligation Capacity Market (Option 2)** should not be adopted in its present form, as it undermines contractual scheduling rights, increases settlement complexity, and exposes consumers to additional market-related risks.
3. **Residual RA Obligation Capacity Market (Option 3)**, if considered at all, should be strictly limited to an emergency backstop mechanism for addressing genuine residual adequacy deficiencies and should operate on strict cost-causation principles without diluting State-level procurement responsibilities.
4. **Reserve Capacity Market:** The Reserve Capacity Market should be treated as a temporary transitional measure and should automatically lapse once Resource Adequacy obligations are fully implemented, unless the Commission determines that its continuation is justified.
5. **Secondary Short-Term Capacity Market** may be considered in principle for improving utilization of existing contracted capacities, with a clear preference for Option 2, subject to preservation of contractual rights and adequate market safeguards.

TNPDCL further submits that regulatory efforts would be more effectively directed towards strengthening Resource Adequacy implementation, Ancillary Service Markets,

flexibility procurement mechanisms, Battery Energy Storage Systems (BESS), Demand Response programmes, and reserve management frameworks, rather than introducing broad-based capacity market structures that may increase consumer tariffs without delivering commensurate reliability or efficiency benefits.

R. Srinivasan
16.06.2026
Chief Financial Controller /
Regulatory Cell