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Government of India
Ministry of New and Renewable Energy

Atal Akshay Urja Bhawan,
Lodhi Road, New Delhi – 110003
Dated: 15th June, 2026

Office Memorandum

Subject: Comments on CERC Staff Paper on "Capacity Market for Electricity in India" – Regarding.

This is with reference to the CERC Staff Paper on "Capacity Market for Electricity in India" issued on 29.04.2026, inviting comments and suggestions from stakeholders.

2. The Staff Paper discusses the need of a capacity market in addition to the existing energy market and long-term PPA framework in India. At present, long-term PPAs already work somewhat like capacity contracts because generators recover fixed charges based on availability, while DISCOMs get scheduling rights. However, the paper suggests that this may not ensure capacity is available during peak hours, especially as renewable energy penetration increases and net load becomes more volatile. Accordingly, the main objective of the paper is to ensure resource adequacy, system reliability, reserve availability, and efficient dispatch through market-linked capacity contracting.

3. From the renewable energy perspective, this would be a positive move as it recognises the need for firm capacity, reserves, storage, and market-based balancing. It can support solar-plus-storage, wind-solar hybrids, ESS, and firm renewable projects by creating additional revenue streams. However, the main issues of the options proposed in the staff paper are as follows:

- The capacity markets generally reward firm capacity. In India, the easiest firm capacity providers are existing coal, gas, and hydro stations. Unless rules for RE sources are defined, the market may mainly create additional revenue for conventional plants. This could reduce the urgency to procure renewable-plus-storage or demand response.
- The thermal plants already recover fixed charges through long-term PPAs. If the same capacity receives additional capacity payments or reserve capacity payments, it may create a double-payment problem. Further, DISCOMs and consumers may end up paying more without necessarily getting new clean flexibility.
- The paper allows RE to participate with ESS, but it does not define how the reliable capacity value of RE, storage, or hybrid projects will be calculated. This is a serious gap. A 100 MW solar plant, 100 MW wind plant, 100 MW/200 MWh battery, 100 MW/400 MWh battery, and 100 MW coal plant do not provide the same system value during stress hours. The final framework needs a clear capacity credit methodology, possibly based on effective load-carrying capability, time-block contributions, regional profiles, duration, and performance during stress periods.
- The paper mentions demand-side resources mainly in international examples, but the India-specific options suggested are much more focused on generators, DISCOMs, traders,

reserves, and ESS. Demand response can be a powerful renewable integration resource. Industrial load, EV charging, cold storage, green hydrogen, agricultural feeders, and commercial buildings can shift demand to solar hours or reduce evening peak. A renewable-friendly capacity market should allow aggregators and demand response to compete.

- The Reserve Capacity Market proposes annual auctions with one-year contracts. This gives certainty but may not capture India's seasonal and time-of-day renewable balancing needs. For example, reserve needs may differ across summer peak, monsoon wind season, low-wind periods, solar-heavy afternoons, and evening ramp hours. A more granular product design may be required.
- Renewable energy in India is geographically concentrated. Capacity located in Rajasthan, Gujarat, Tamil Nadu, Karnataka, etc., does not have the same value unless transmission and deliverability are available. The paper does not deeply discuss locational capacity value, transmission constraints, or GNA linkage. A national capacity market that ignores transmission deliverability may overstate the value of some capacity.

4. In view of the above, it is requested that CERC may consider the following while designing the Capacity Market framework for electricity in India:

i. Existing fixed-cost recovery should be netted off or adjusted to avoid double payment.
ii. Clean flexible resources such as BESS, pumped storage, demand response, RE-plus-storage, virtual power plants, EV charging aggregators, and green hydrogen loads should be eligible to participate.
iii. Capacity products should value ramp rate, response time, minimum generation level, start-up time, emissions intensity, and ability to absorb renewable surplus.
iv. NLDC-notified stress periods should be based on published criteria.
v. Create time-block or seasonal products, such as covering evening ramp, solar absorption, monsoon variation, and high-demand summer.
vi. Small RE, distributed batteries, EVs, and flexible loads should be allowed to participate through aggregators.
vii. Capacity value should consider deliverability and transmission constraints.
viii. Capacity market design should reinforce, not dilute, renewable purchase and storage obligations.

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