adani
Power

Ref.: APL/CERC/13062026
Date: 13.06.2026

To

Secretary,
Central Electricity Regulatory Commission,
World Trade Centre
New Delhi -110029

Sub.: Comments on Staff Paper on "Capacity Market for Electricity in India".

Dear Sir,

With reference to the comments invited by the Hon'ble Commission, on the above-mentioned Staff Paper on "Capacity Market for Electricity in India", we hereby submit our comments on the same with a request to kindly take the same on record.

Thanking You,
Yours Sincerely,

For **Adani Power Limited**

M. R. Krishana Rao
Chief- ERCG

Adani Power Limited
Adani Corporate House
Shantigram, S G Highway
Ahmedabad 382 421
Gujarat India
CIN : L40100GJ1996PLC030533

Tel +91 79 2656 7555
Fax +91 79 2555 7177
info@adani.com
www.adani.com

Registered Office: Adani Corporate House, Shantigram, Near Vaishno Devi circle, S.G Highway, khodiyar Ahmedabad – 382 421, Gujarat, India.

Preamble

At the outset, we appreciate the initiative of the Hon'ble Central Electricity Regulatory Commission **(CERC)** in issuing the Staff Paper on **"Capacity Market for Electricity in India"**, which aims to explore alternative approaches for ensuring availability of adequate generation capacity reserves and maintaining supply security, especially during peak demand and stressed grid conditions.

While the objective of the Staff Paper is well-intentioned, it is respectfully submitted that any new market design or procurement framework should be examined holistically, keeping in view the existing provisions of the Electricity Act, 2003, the current policy framework for long-term procurement, past experience with bidding structures, and the commercial viability of generation assets.

In this context, long-term procurement under Section 63 is governed by competitive bidding guidelines issued by the Ministry of Power **(MoP)**. Therefore, any significant change in procurement structure, risk allocation, or tariff mechanism would require alignment with these guidelines and may fall within the domain of the Government of India in terms of the provisions of the Electricity Act, 2003.

Past experience, particularly under Case-I Standard Bidding Documents **(SBD)** for procurement of long-term power on competitive bidding basis, has shown that inadequate pass-through of fuel costs and uncertainties in cost recovery has lead to under-recovery, making Power Purchase Agreements **(PPAs)** commercially unviable and resulting in long-drawn disputes. Acknowledging this bottleneck, the shift to power procurement under DBFOO basis has addressed many of these concerns by ensuring better risk allocation, pass-through of uncontrollable costs, and improved commercial viability, thereby providing more stable contractual arrangements.

In this background, the models proposed in the Staff Paper, especially those involving capacity-only contracts with market-based energy cost recovery, need careful evaluation. Such models may expose generators to risks like uncertainty in fuel cost recovery, market volatility, and lack of clarity on treatment of change in law events. Since energy charge recovery would depend on market outcomes, there is an inherent risk of under-recovery, which can impact the financial viability of generating stations and thereby discourage participation from generators which will prevent fulfilment of the objectives proposed under the Staff Paper.

Even from a financing perspective, revenue certainty is critical. Lenders and investors rely on predictable cash flows for debt servicing. Any procurement structure that increases exposure to market risks may increase the cost of capital and discourage fresh investments, particularly in capital-intensive generation projects.

It is also submitted that while the Staff Paper emphasizes availability of capacity during stressed conditions, a sustainable framework governing both stress and non-stress / normal conditions duly balancing the interests of all stakeholders, including generators and distribution licensees is imperative for the proposed initiatives to fructify in the true spirit. Proper risk allocation is essential to ensure that no party is unfairly exposed to uncertainties beyond its control.

Further, the proposed approach may create challenges in project development and financial closure due to uncertainty in revenue recovery, including energy charges and change in law adjustments, thereby affecting investment decisions and commercial viability of the project.

In view of the above, it is respectfully suggested that instead of introducing an entirely new procurement structure, a more practical approach would be to strengthen the existing DBFOO framework by incorporating targeted improvements and safeguards to address system reliability concerns. This would help maintain regulatory certainty, support investor confidence, and ensure the financial sustainability of stakeholders, while achieving the objectives outlined in the Staff Paper.

In furtherance of the general concerns articulated in the preamble regarding the Staff Paper on the Capacity Market for Electricity in India, the following detailed, point-wise comments and suggestions are respectfully submitted for consideration:

Comments/ Suggestions

Sr. No.	Draft Paragraph	Comments / Suggestions
1.	A) Capacity Market for RA/Capacity Obligation: 26. The Resource Adequacy (RA) framework requires each State/Discom to procure capacity sufficient to meet demand at all times reliably. It is expected that the discoms shall procure generation resources using a least cost optimization model. As per current practice, the discoms invite bids using a two-part tariff structure: fixed cost, plus variable cost, and the bidder quoting the lowest total cost (fixed cost, plus variable	**Common comments for Capacity Market for RA/ Capacity Obligation considering Option 1 to 3:** 1. The design of capacity Markets in India must be calibrated to India's unique context, where: a. Thermal, nuclear, and hydro plants are the backbone of baseload supply and grid stability; b. Project finance structures have matured around long-term revenue certainty ~ 25 years;

Sr. No.	Draft Paragraph	Comments / Suggestions
	cost) is awarded the contract to set up the generation project. The bidder is eligible to recover fixed costs based on the declaration of availability, and the energy charge is recovered in accordance with the discom's schedule, on a day-ahead/real-time basis. Such contracts do not go through the market, as scheduling/dispatch rights for such generating stations rest with the buying discom. 27 RA Obligation Capacity Market (Option-1) ….. RA Obligation Capacity Market (Option-2) ….. RA Obligation Capacity Market (Option-3) …..	c. Discoms carry well-documented credit risk; and 2. Some of our key concerns include: a. ~15-year contract duration is insufficient for thermal/nuclear/Hydro project finance; b. **Technical Minimum Issues:** During off-peak/solar hours, thermal plants must operate at Technical Minimum to remain available for ramp-up during stress hours. The capacity market must provide for recovery of fuel costs during Technical Minimum operation; c. **Prerequisite of market coupling:** The Staff Paper acknowledges that the discom's demand curve would need to be drawn 'slightly above the price cap' to address the free-rider problem, which is possible only in a coupled, unified market. Without coupling, fragmented price discovery across exchanges will create arbitrage and price distortion. d. The peak/stress hours vary from state to state and the Energy Market is to be run at National level. **So, peak/stress hours have to be as per the buyer rather than be defined by NLDC;** e. 1.5 times penalty framework is without exemptions and may discourage gencos participation/hurt margins (below Normative availability (85%) to be considered for penalty i.e., 15% to be excluded from penalties). **Moreover, penalties during outages/force majeure**

Sr. No.	Draft Paragraph	Comments / Suggestions
		aren't addressed. There are no penal provisions for Discom RA under-procurement; f. **Price taker mandate during stress hours:** Cost-reflective bidding rule must apply — bid at/above declared variable cost, with capacity payment covering fixed costs. Further Price Taker (quoting less rate) condition should not apply for capacity not scheduled. **i.**e., Contract 1000 MW, Scheduling 600 MW, Balance 400 MW can be sold in market at sellers discretion. g. In certain options buyer has Scheduling right but does not have Dispatch rights or does not have either of them. And
2.	RA Obligation Capacity Market (Option 1): • The discom may invite bids based solely on capacity charges. …….. …….. • It is expected that in the future, even the RE projects will offer capacity in the capacity market by firming up generation with Energy Storage System (ESS). Hence, a technology-agnostic capacity market is recommended.	1. **Technology-specific procurement, not technology-agnostic**: Net-CONE, contract duration, capacity charge, and de-rating factors must be differentiated by technology (thermal coal, gas, nuclear, hydro, RE + Storage). Moreover, all long term documents like EPS, Optimal Mix, RA studies; list technology wise capacities required and hence capacity markets should align with broader policy narratives in the country.

Sr. No.	Draft Paragraph	Comments / Suggestions
2.	RA Obligation Capacity Market (Option 2): • The other option is for the discom to invite bid based on the total cost (Capacity Charge + Variable Charge), as is done currently. However, day-ahead and real time scheduling and dispatch could be as follows. The Discom will have scheduling rights but not dispatch rights over the capacity ……. …….. …… • In this design as well, it is suggested that the capacity providers be mandated to ensure they participate and cleared in the market during the peak/stress hours, to be notified by NLDC. They (the capacity providers) could bid as price takers during such peak/stress hours. Failure to clear will make the capacity holders liable for penalty @ 1.5 times the capacity charge discovered.	1. The prevalent practice of long- and medium-term contracts where scheduling and dispatch rights are with Discoms should continue. Further, there is no clarity that how scheduling and dispatch rights differ in perspective of Capacity provider and buyer. 2. **The penalty provision, in its current form, appears to be ambiguous and lacks sufficient clarity.** The Ministry of Power should specify bands within which if Capacity Provider bids there should be no penalty. i.e., During peak demand periods, a generator may place bids within bands as provided by MoP to ensure participation and maximize the possibility of dispatch. However, non-clearance of such bids may result from system constraints, market dynamics, or transmission limitations, which are beyond the control of the generator. In such situations, the generator should not be penalized.
3.	Residual RA Obligation Capacity Market (Option 3): • All buying entities are mandated to ensure their resource adequacy as per the approval of SERC. • A central agency designated by the Ministry of Power may carry out centralized auction for 'Residual RA Obligation Capacity Market" …… …….. ……..	1. The Central Agency should have prior mandated from Discoms approved by respective SERC before commencement of bidding. 2. CERC-approved auction tariff must be mandatorily adopted by SERCs without re-determination. No capacity provider will participate if auction tariff faces state-level review over 10–15-year contracts

Sr. No.	Draft Paragraph	Comments / Suggestions
	• To prevent gaming, the capacity providers could be mandated to ensure they participate and are cleared in the market during the peak/stress hours, to be notified by the NLDC. They (the capacity providers) could bid as price takers during such peak/stress hours. Failure to clear will make the capacity holders liable for a penalty @ 1.5 times the capacity charge discovered.	3. This model can act as alternative to present banking system for example UP & MP, HP & Punjab etc. have complimentary demand pattern where one state requires power during certain months and is surplus during balance months. 4. The penalty provision, in its current form, appears to be ambiguous and lacks sufficient clarity.
4.	(B) Reserve Capacity Market 28. International experience reveals that in most power……. …… …… 37 Reserve Capacity Auction Design …… ……. <u>Penalty for failure to show up:</u> Penalty to the capacity provider for failure to meet the obligation to participate in the AS market, @ 1.5x (Discovered Capacity Charge + AS price).	The proposed mechanism is in line with existing AS except for the Payment of Fixed Charges in addition to offered price.
5.	(C) Secondary Short term Capacity Market: 38. At present, closer to the time of delivery, the markets, viz ., the Day-Ahead and Real time Market, are energy-only market…… …… ……	**Option 2** (Two Part Bids for "Capacity Charge + Energy Charge" is recommended **over Option 1** bid for only Capacity Charge. Further, we would like to propose below changes in light of the Secondary Short term Capacity Market A. The contract for 3 months in advance on exchange provides better clarity to Discoms as well as to market.

Sr. No.	Draft Paragraph	Comments / Suggestions
	39…….. …… • In the event the capacity holder participates in the market, it has to ensure that it clears in the peak/ stress hours defined by the NLDC. Failure to clear will make the capacity holders liable for a penalty @ 1.5 times the total cost discovered.	However, to make it successful, the DEEP portal should be closed. The choice of two markets distorts decision making process at Discom ends. While there is a directive by CERC to conclude contract in 2 days in Exchange; at DEEP, Discoms take time, even 6 months. B. Double side bidding for Capacity and Energy charge, in short term market, provides larger capacity participation from all kind of energy sources C. Generators should be allowed to purchase capacity and energy when their own contracted capacity is in partial outage. Similarly, Discoms can sell Energy part of surplus Capacity of short-term contracts, like URS power, to optimize its cost. Such a scenario will instill better confidence among Discoms to tie up capacities in advance and reduce dependency on last-moment contracts. D. The penalty provision, in its current form, appears to be ambiguous and lacks sufficient clarity.