REGULATORY ASSISTANCE PROJECT

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Comment Submission

For the kind attention of:

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Comments to CERC on the Draft Notification for the Terms and Conditions of Tariff Regulation, released on 4th January, 2024

Background

We want to thank the Commission for this opportunity to comment on the Draft Notification (No.L-1/268/2022/CERC) on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations for the period 1.4.2024 to 31.3.2029.

Our interest is solely to provide assistance to CERC and Indian decision-makers as you seek, through reform and regulation of the country's power sector, to make it more efficient, achieve important public policy goals, and to contribute to serving the public good in India.

In anticipation of the current regulations expiring on March 31st, 2024, the Commission has issued a draft notification laying out general parameters and requirements for the setting of wholesale and retail tariffs in the Indian electric power sector. The notification heralds the new terms and conditions that would be in place for five years, from April 1st, 2024 through March 31st, 2029.

The objectives of such reforms are to increase the efficiency of power sector operations and investment and to streamline the tariff-setting process. Consequently, the draft regulations dive deeply into the many detailed items that go into the determination of costs to be recovered through regulated prices.

Our comments are focused on a handful of important themes addressed by the draft regulations. As global experts, we will not weigh in on the pros and cons of particular choices to be made by Indian regulators. Instead, our comments, based on our international experience as regulators and industry participants in several jurisdictions and markets, reflect on how the incentives for cost recovery affect the behavior of market participants, both regulated and competitive, and how that behavior might be even more effectively shaped to advance the achievement of the desired public policy goals.

Comments and suggestions on the draft notification:

We would like to begin by applauding the Commission for its approach to tariff reform. All regulation is 'incentive regulation.' The draft notification recognizes that all methods of pricing and cost recovery create incentives, for both seller and buyer. Ideally, those incentives will drive desired behavior—for example, investment in preferred resources (flexibility, renewables) and improved efficiency in operations and end-uses. The draft notification also recognizes that proper risk allocation is critical to getting the incentives—and the behavior they induce—right.

Principally, our comments comprise of three major overall observations and several specific comments:

OVERALL OBSERVATIONS:

I. CERC SHOULD USE MORE PERFORMANCE BASED REGULATION FOR THE REGULATED ENTITIES

We encourage CERC to enhance utilization of Performance Based Regulation (PBR). Such regulation, in contrast to the cost-based regulation approach, is likely to accelerate the move to greater efficiency, and thus lower costs to consumers. PBR should motivate regulated entities to behave more like competitive ones. Further, regulators can use PBR judiciously to align interests of consumers and regulated entities and to achieve public policy goals. In many markets around the world, the rate of return on investment is not guaranteed per se, and instead regulated entities must earn this through performance.

A PBR regime uses implicit and explicit performance mechanisms. In the implicit mechanisms, in a multi-year tariff context, how regulators deal with annual revenue and expense reconciliations (true-up) affect the incentives to regulated entities. The actual revenues and expenses for a given period rarely match the forecast built into the Annual Revenue Requirement (ARR) determination. How the variance between the actual and the forecast ARR is reconciled, post-fact, in a multi-year tariff setting significantly affects the rate of return and incentives for the regulated entity. For example, if the variance between the projected and forecast Operating & Maintenance (O&M) expenses are fully reconciled, then the incentive for the regulated entity to be productive and efficient to reduce O&M costs is removed and the cost discipline is eliminated. Ideally, for the controllable O&M costs, there should be no reconciliation of O&M expenses after the fact, if the initial O&M forecast in the ARR is based on a solid methodology, assumptions and review by the regulator. If the regulated entity reduces O&M expenses compared to the forecast level, through efficiency and productivity measures, it should be allowed to keep some or all the savings, that would result in higher returns to the regulated entity. This would provide a strong motivation for the regulated entity to identify and implement productivity measures that will result in lowering the costs, especially if the multi-year period is 4-5 years. However, if the regulated entity spends more than the forecast, there could be no reimbursement for the shortfall. This would provide a strong discipline to control costs to stay under projected budget and to estimate costs more accurately to begin with. Several implementation issues must be worked out in deploying such an incentive mechanism.

In addition to implicit performance mechanisms, a PBR regime also uses explicit performance mechanisms to motivate regulated entities to perform efficiently and achieve the specific goals that the regulator sets out in the PBR mechanism. Globally there are several examples of explicit PBR mechanisms where incentives and/or penalties are linked to the performance of the plants. Examples of PBR metrics include availability of plants during peak hours, performance on plant ramp rate, provision of primary response and reactive power etc. Regulators can define performance parameters whereby a generator can be rewarded and/or penalized based on actual performance relative to the targets set by the regulator. The reward/penalty can be tied to return on equity. Setting targets requires benchmarking and utilization of good utility practices. Such explicit PBR mechanisms could improve plant performance and/or lower costs, and achieve any other public policy goals regulators want to achieve.

2. CERC SHOULD ENCOURAGE PROMOTION OF DEMAND FLEXIBILITY AT THE WHOLESALE AND RETAIL LEVEL

There is room for the draft Terms and Conditions of Tariff Regulation to provide a stronger impetus for deployment of demand flexibility. Demand flexibility represents a significant, yet under-utilized, untapped resource in India, and the tariff regulations would be a key tool to support harnessing this resource.

On the wholesale side, for example, with increased penetration of renewable resources in the supply mix, the need for fast ramping resources becomes even more important. Accordingly, performance on ramp rate should be incentivized / penalized. Further, other resources such as certain types of storage may also be able to provide such ramping services to the System Operator and they should be allowed to compete with generators. Similarly, there may be other demand flexibility resources that can provide other ancillary services to meet the needs of the system operators. Such demand flexibility resources that are cost effective should be encouraged and promoted.

On the retail side, in the application of the tariff regulations, CERC could advise state electricity regulatory commissions to design their retail tariffs in a way that encourages demand flexibility to reduces peak loads (which is salient for informing generation and transmission investment) and modify the daily load shape, to reduce overall cost to consumers. For example, utilization of dynamic retail tariffs (e.g., time-of-use, peak time pricing, day-ahead market price based etc.) would help reduce peak load and shift load in such a manner to fully utilize renewable resources and also help reduce reliance on expensive fossil peaking units. This would both save costs to consumers and reduce pollution.

3. CERC SHOULD CONSIDER MOVING TO A MORE COMPETITIVE MARKET REGIME, WHERE POSSIBLE

There is room for the draft Terms and Conditions of Tariff Regulation to incentivize market-based approaches more emphatically and unambiguously. By departing from the traditional approach used until now, CERC has the opportunity to foster the emergence of market-based solutions, innovation, and efficiency. We encourage CERC to find opportunities to move to a more competitive regime, wherever possible, from the current cost-based ratemaking regime. The economic rationale for this stems from shifting the capital risk to those who can bear and manage it, rather than the consumer. Competitive markets allow for innovation and efficiency, and more choice for consumers and at lower cost. A simple conceptual idea is suggested below.

There are several generating units that hardly run and survive primarily on the revenue stream from fixed charges. There is little incentive for these units to behave in an efficient and competitive manner. For example, CERC could consider requiring some of the regulated generators to receive some of their revenue stream from the competitive market. Instead of allowing recovery of 100% of its fixed costs from a regulated cost regime, a part of a generator's fixed cost recovery (say 10% for illustration) could be subjected to risk, by requiring it to participate in the wholesale competitive market. If, by participating in the market, the generator recovers more than the uncompensated 10%, it should be allowed to keep those extra revenues. On the other hand, if it recovers less than the 10%, then there should be no reconciliation of the lost revenues from customers. This approach would subject the generators to more cost discipline, encourage them to behave more competitively, and increase the liquidity in the wholesale competitive market. Clearly, this proposal may have other ramifications (including legal) and implementation issues that should be further studied and considered.

Further, while a complete overhaul of Power Purchase Agreements (PPAs) in India may be challenging to implement at once, a clear direction of change away from PPAs should be initiated, and a transition envisaged (such as having financially settled PPAs). These draft regulations represent an opportunity to gradually modify the current cost-based regime to a more competitive one, which should be more assiduously explored.

We look forward to collaborating with CERC in its efforts to drive reforms in the Indian Power sector that are in line with and support India's socio-economic needs and priorities.

SPECIFIC COMMENTS:

Further, we share the following specific suggestions for your consideration:

- CERC should identify ways in which fixed costs can be reduced, such as through moving some of them to the variable cost category (e.g., costs of fuel oil, salt, etc.) Other fixed cost elements can also be considered for movement to the variable cost category. This provides an incentive to improve availability, although it should be noted that the SCED should consider only the variable cost for optimization purposes.

- The draft regulations should ensure that all the un-requisitioned surplus (URS) power is bid in the market be it in Over-The-Counter (OTC) trading or through a power exchange with the freedom to bid.

- Part load compensation must be eliminated as extra profit from market and Unit Commitment.

- Each plant must be required to participate in Security Constrained Economic Dispatch (SCED).

- Generation plants that hardly run (e.g., Kayamkulam and Faridabad) should be moved to Regional Load Dispatch Centres for better utilization, such as ancillary reserves.

We hope the comments above assist with finalization of the draft regulations. Once more, we wish to commend CERC on developing these crucial regulations, and we lend our support to the draft notification.

Thank you for this opportunity to comment. If we can be of further assistance, please don't hesitate to ask.

Sincerely,

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