



**For the kind attention of:**

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**Comments to CERC on the Approach Paper for Terms and Conditions of Tariff Regulation,  
released on 26 May 2023**

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**Background**

Shri Harpreet Singh Puthi

We want to thank the Commission for this opportunity to comment on the *Approach Paper on 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 decisionmakers as you seek, through reform and regulation of the country's power sector, to make it more efficient, achieve important public policy goals (including India's COP-26 commitments), and improve the overall welfare of Indian society.

Every five years, the Commissions sets out general parameters and requirements for the setting of wholesale and retail tariffs in the Indian electric power sector. The current set will expire at the end of March 2024. The approach paper reviews current practices, identifies issues of interest and concern, and invites comment on possible reforms for the next five-year period.

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 approach paper dives deeply into the many detailed items that go into the determination of costs to be recovered through regulated prices. Our comments, however, will not be likewise detailed. We do not have a sufficiently deep knowledge of Indian regulatory history and practice that would allow us to speak to the pros and cons of particular choices. Instead, our comments, based on our international experience as regulators and industry participants, take a broader look at how the incentives for cost recovery affect the behavior of firm, both regulated and competitive, and how that behavior advances or inhibits achievement of the desired public policy goals. India has set for itself ambitious targets for system reliability, renewable resources, and climate action. None of these objectives should be achieved at the expense of the others. They are not mutually exclusive and, in fact, can complement each other. Well-designed tariffs can advance achievement of these goals.

## Comments and suggestions on the approach paper:

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We would like to begin by applauding the Commission on its approach to tariff reform. All regulation is incentive regulation. The trick is to understand how the incentives actually work. The approach paper 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. It also recognizes that proper risk allocation is a critical to getting the incentives—and the behavior they induce—right.

Section 3 of the paper lays out the essential philosophy of the approach. It identifies the certain virtues and shortcomings of traditional cost-of-service regulation. It then goes on to describe the steady evolution of pricing—based on “normative” costs rather than actual—to begin to impose competitive discipline on the market.

We support this general approach. It is, first and foremost, consistent with long-standing regulatory principles and practices, which aim to give companies a reasonable opportunity to earn a fair rate of return, *but do not guarantee a return*. Further, the introduction of performance-based regulatory regimes motivates the utilities to be more efficient and responsive to consumers, and better aligns the interests of consumers and utilities. The more efficient actors will make money and the less efficient will not. And the Indian consumer will benefit.<sup>1</sup>

We do not feel qualified at this point to venture an answer to the question of whether to move more quickly to a normative approach or whether to continue to rely on a hybrid approach (in which some costs, such as capital investment, are actuals and some normative). What’s best for India will emerge from the process that this paper has initiated. That said, we urge the Commission to consider this question in light of the goals that India has set for itself: Which approach is more likely to spur efficient investments in desired resources?

We have some thoughts on several specific items:

- The renewables purchase obligation contains a sub-obligation for purchases of hydro power. The paper notes that discoms are reluctant to sign contracts for hydro power because of the manner in which costs are front-loaded. The paper calls for more “flexible” tariff design, to extend project lifetimes to 40 years and push some of that cost recovery into the future. This will have the effect of reducing intertemporal inequity (i.e., today’s consumer paying for benefits that tomorrow’s consumers will enjoy) and of better reflecting what is sometimes referred to as “economic

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<sup>1</sup> A concern often raised in discussions of this sort is that potential financial distress among electricity suppliers is a threat to system security (operational reliability). This is a typical argument in favor of capacity mechanisms that provide revenue streams to legacy generation (which can have the deleterious effect of delaying the economically efficient turnover of capital stock). It’s not the case, however, that reliability is threatened. So long as a generator is covering at least its operational costs, it has a strong incentive to stay on line, because, from the investors’ viewpoint, partial recovery of capital costs is better than no recovery. See, e.g., Hogan, Mike, “The generators who cry wolf,” *Utility Dive*, 24 May 2023, at <https://www.utilitydive.com/news/the-generators-who-cry-wolf-how-competitive-wholesale-markets-handle-gen/650975/>.

depreciation.” One approach for doing so is outlined in Kahn, Edward, *Electric Planning and Regulation*, Universitywide Energy Research Group, University of California, January 1988.

- The paper sees gas plants, though relatively expensive to operate now, as key providers of flexibility and ancillary services. We recommend that the Commission recognize the ability and value of distributed energy resources (DERs), including demand response, in providing these services.
- Thermal plants that are 25 years and older are broken down into three categories: efficient coal, inefficient coal, and efficient but expensive gas. The paper asserts that they are needed still, because demand continues to grow at around 4% per year. The main conclusion is that, for the most part, they should stay in operation but that the ones that are inefficient or unable to meet environmental requirements should be replaced with super-critical units. We note only that the replacement of aging and inefficient units should be subject to economic and policy tests and the Commission should not foreclose the possibility that an alternative portfolio of resources—made up perhaps of energy efficiency, renewable, flexible, and demand-side options—would be less expensive, cleaner, and more reliable.
- The paper notes that, in the interest of regulatory certainty, the tariff reforms discussed should not, as a general matter, be imposed on existing generators and transmission facilities (i.e., don’t change the “rules” on them). But the paper also recognizes that that is, in certain instances, in tension with the goals of improving overall efficiency and increasing flexibility. We observe only that all businesses operate in fluid economic and political environments and that, as circumstances and public policy change, the Commission may find it appropriate to alter its tariff-setting methods. Its discretion is, of course, bounded by law and equity concerns, but there remains a meaningful range of action that it can take. This is, after all, one of the risks for which the companies are compensated. That said, we acknowledge that the risk calculus is generally different for government-owned companies, which may provide for greater flexibility when implementing reform.
- Competitive bidding as a means of both acquiring new resources and identifying normative costs is encouraged. We support this. We encourage the Commission to link the competitive bidding requirement with a planning one. Competitive bidding tells you what resources cost, but planning tells you what they are *worth*. Prudent short and long-term system planning is essential. It will identify resource needs; bidding will help you acquire those resources at least cost.
- The paper seeks comment on a wide range of finance-related issues (Section 4). They are all important regulatory questions and, in our own careers as regulators and industry specialists, we’ve dealt with most of them in one way or another. If there are particular questions that RAP might be well-situated to assist the Commission with, we’ll be more than happy to do so. For now, we urge the Commission to think about how all these decisions will work in concert. Will a decision with respect to one cost element (say, depreciation) adversely affect the Commission’s goals with respect to another (say, retirement of inefficient plant or minimization of rate impacts)? This is true also of the “Operational Parameters Affecting Tariffs.” For instance, will a particular treatment of O&M expenses encourage or inhibit investment in clean resources? The answers to questions like these—and sometimes the questions

themselves—will not always be obvious, but always seeing them in the context of the incentives they create will greatly assist the Commission in its decision-making.

- Lastly, an overarching theme of the paper has to do with how tariffs and tariff reforms can aid in the gradual shift to competitive wholesale markets. This implicates the design of purchased power agreements (PPAs). Two-part (capacity and energy) payment structures can work well in fully regulated systems but might, in certain circumstances, create disincentives to participation in competitive markets. Payment structure and level should reflect the value the generator provides in terms of products and services to the system (e.g., reliability, flexibility, emissions-free energy, etc.). In the end, contracts should encourage generators to perform—that is, to provide the output and services that are most highly valued by India and its citizens.

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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