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General Network Access: Comments on Draft Regulations

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Commission

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Purpose

The Regulatory Assistance Project, an international NGO whose mission is to assist decision-makers develop and implement policies that will facilitate the transition to a low-cost, low-carbon energy future, respectfully offers these brief comments on the Commission’s proposed General Network Access tariff.

We begin by applauding the Commission for taking this important action and for the objectives that it is intended to serve:

“Robust transmission system is critical infrastructure for faster integration of generation, particularly upcoming renewable energy projects, unhindered operation of a competitive electricity market, and development of a resilient Grid...”

The proposed Regulation is detailed and extensive. Our comments at this time are limited to several broad considerations and approaches to them that will increase the likelihood that the Commission’s objectives – and the country’s climate commitments – will be achieved.

Technical, Economic, and Social Considerations

- The goal of a General Network Access Regulation is to facilitate economically efficient investment in, and operation of, the Indian power system. As such, the design of the regulations must take in consideration the following:
 - Electricity is fungible; marked by Cournot behaviour of firms; follows the laws of physics, e.g., loop flows, etc.
 - Economics of transmission (planning, access, and pricing)—e.g., whether the user should be charged prices based on average cost or marginal cost—can be challenging.
 - Points to consider related to technical and economic/financial attributes include:
 - The treatment of vintage transmission:
 - how should legacy issues be handled?
 - Usage and access,
 - Physical vs electrical distance,
 - Sign of direction of flow, etc.
 - The temporal and geographic nature of cost causation
 - (not merely diurnal: seasonal impacts create another dimension of complexity).
- CERC regulations should allow for modification, as circumstances (technical, technological, financial) warrant—but always with an eye to achieving the national vision of a clean, low-cost, low-carbon energy system

Keep it as simple as possible, but no simpler

- The GNA Regulations should have the effect of fairly sharing the costs of transmission among both the cost-causers and the beneficiaries. This is the central challenge. There is not always a direct relationship between cost-causation and benefit. Benefits do not always accrue only to those who cause the costs, and those who cause the costs do not always pay them.
- But perfection is the enemy of the good:
 - Too complicated a cost-sharing mechanism and its derivatives based on simulations and so-called classical cost benefit analysis might fail to account for intangible benefits that a well-planned grid, built for reliability, resilience, efficiency, can yield.
 - Everyone benefits from a grid that is robust—that is, is most capable of dealing with the risks and opportunities of an uncertain future, especially one that is carbon-constrained.
 - Undue complexity might create unnecessary concerns about fairness and therefore opposition to a Regulation that otherwise provides benefits for all.
- Decarbonisation and large-scale renewables integration needs a paradigm shift in transmission planning, access, and pricing.
 - The GNA is a key first step in this direction.

Global challenge: reforming transmission planning, access, & pricing for renewables and decarbonisation

- Large-scale RE integration calls for new methods
- We are moving from point-to-point service to general network access
- Transmission is a public service for common good
- The transition has to be handled very carefully, in a planned way
- It will require capacity building, new systems, and new procedures

International experience – both successes and failures – has much to teach. Complexity can lead to paralysis and the big picture can get clouded. Recent FERC orders and EU directives on transmission can help India think through some of these issues.

But the solutions must be designed to serve India's needs.

The Planners' Dilemma

- The security and reliability of supply, at all times, is paramount to everyone.
- The challenge before the planners is how to provide 360-degree access yet avoid over-building transmission.
- Capacity building is needed:
 - New tools to be learned, new skill sets to be developed
 - Integrated resource planning to optimize investment and operations, given uncertainty.
- India has created the Central Transmission Utility to act as an *independent* system planner
- Markets can perform miracles by means of the “invisible hand”, but they have to be thoughtfully designed to produce desired outcomes at lowest long-run cost.
 - Planning is still necessary. The market is not a substitute for planning.
 - Planning tells us what we need. Competition helps minimize the cost of acquiring it.

Considerations

- System security is paramount
 - Assessing the transfer capability—the directional and simultaneous transfer capabilities of many areas—whether by planners or operators, is another challenge. Planners need to address how the GNA approach affect transfers.
- Transfers of transmission rights: physical v. financial:
 - Transfer of rights of transmission access is another latent issue; allowing for it creates complexities (e.g., in the form of derivatives for *financial* transmission rights, etc.) that, for now, might be avoided.
 - At this time, it might be better to focus on straightforward, concrete steps that will drive greater efficiency and deeper decarbonisation. As experience with, and confidence in, initial reforms is gained, development of additional market-based mechanisms to serve those goals can proceed.

Public Policy and Fairness: Balancing Sometimes Competing Goals

It is the prerogative of decision-makers to set public policy ambitions and implement policies to achieve them. This often takes the form of creating financial supports or cross-subsidies for preferred investments. We do not object to this, as a general matter; indeed, RAP principals and advisors have much direct experience with making such decisions. We merely note that there are trade-offs always come with these choices and that minimizing the *unfair* allocation of costs is a good thing. But not everyone will agree on what is fair or unfair. This is why “rough justice” is a reasonable goal. Some stakeholders may not benefit today from a particular decision, but they very well may tomorrow.

Everyone benefits from a clean, reliable, and resilient grid.

GNA is the way forward, but will need careful oversight

- Moving to General Network Access for transmission, notwithstanding hiccups in implementation, will facilitate better integration of renewables, make possible larger (cross-border) balancing areas, provide choice to consumers and stakeholders, improve the economy, drive decarbonization, and make it easier for market actors to do business.

Thank you.

About RAP

The Regulatory Assistance Project (RAP)® is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at raponline.org

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