

MPERC (Power Purchase and Procurement Process) Regulations, Revision-II, 2022 (RG-19(2) of 2022) [Draft]

MPERC has notified draft on “Power Purchase and Procurement Process) Regulations, Revision-II, 2022 (RG-19(2) of 2022 on 19.07.2022.

The summary of the document is as follows:

❖ Introduction:

These Regulations are proposed to revise the MPERC (Power Purchase and Procurement Process), Regulations, Revision I, 2006 and shall be applicable to all purchases of power from conventional and renewable energy sources of energy made or as proposed to be made by a distribution licensee.

❖ Framework for Power Procurement Planning:

The distribution licensee shall submit the power procurement plan for a time period aligned with control period of MYT regulations (5-year rolling plan) and every year after that, on or before 31st July, in the prescribed format.

Licensee shall carry out demand and energy forecasting using IT tools, such as AI through machine learning, deep learning by methods such as partial end use (PEUM) or other models like econometric analysis, etc. Other factors like storage capacities, sale to railways and open access consumers, renewables, etc. shall also be considered while forecasting the demand.

Assessment of availability of energy has to be carried out by the licensee and in categorized manner and shall develop resource plan with various sources with re-integration also to be considered as per the RPO trajectory set by MPERC.

❖ Variation in Power Purchase:

The distribution licensee may procure additional power during the year over and above the power procurement plan in case of unanticipated increase in demand or shortage in supply or in case of emergency conditions to maintain grid stability.

❖ Making information available to public:

The monthly/weekly/day-ahead/intraday power procurements/sale done by the licensees and generator schedule shall be made available on the websites of the licensees and SLDC within 30 days of such procurements/sale with ease of access to the current as well as archived data. SLDC shall also publish the monthly MoD stack along with per unit variable cost of each generating station in their website.

❖ Dedicated Cell:

Around the clock dedicated cell shall be constituted by the distribution licensees within three months from the regulation coming into force. The cells should have the requisite capability and tools for energy forecast. The cell shall have the power to purchase/sell the energy in real-time, intra-day, day-ahead, week ahead or any longer duration through Power Exchanges or any other means. The licensees shall frame suitable guidelines for the modus operandi of the dedicated cell in line with the spirit of this Regulation and shall apprise the Commission for the same within 45 days from the coming into force of this Regulations.

The draft amendment can be accessed [here](#).

CER Opinion

- 1. Need for Long-term Demand Forecasting and Power Procurement Planning:** Power procurement cost is a major part of the Aggregate Revenue Requirement of the distribution utilities. Power procurement plans and contracts typically have a long-term horizon and, hence, need to be worked out well in advance, based on reliable and dependable forecast. A reliable electricity demand projection cannot only help the distribution utilities to plan power procurement in advance, but also optimise the cost of the power purchase.

CER, IIT Kanpur carried out a research on the importance of these aspects and published a book on “*Regulatory Framework for Long-term Demand Forecasting and Power Procurement Planning*”¹, highlighting the need for a regulatory framework for the same. Given the experience of CER and EAL in carrying out Long-term Demand Forecasting and Power Procurement Planning for the states of Uttar Pradesh and Chhattisgarh, we reinforce the need for a robust regulatory framework for the same. From these studies, it was inferred that significant economic benefits in terms of reduced private and social costs is possible through Long-term Demand Forecasting and Power Procurement Planning.

- 2. Xxx Medium-term power procurement:** As per the definition in the draft, “*Medium-term power procurement*” means *Procurement of power under any arrangement or agreement with a term or duration exceeding three months and upto five years.*” It is suggested that the time period for the medium term power procurement should be defined as 3 months to up to 3 years instead of 5 years.
- 3. Power Procurement Plan:** “*The Distribution Licensee shall prepare the power procurement plan comprising of resource planning to optimize supply resources economically for a period of 5 years with due regard to the requirement of electricity in its area of supply and submit a rolling 5-year plan every year duly revising the projections and plans for the ensuing years to the Commission.*” The term, “*area of supply*” may be elaborated as whether or not, the distribution licensee also needs to plan for the captive generators within its area of supply along with its own consumers. This does not seem to be the intention. Hence, the words “*in its area of supply*” may be replaced with “*for its consumers*”.

Also, the timeline for submission of a rolling 5-year plan may be set for every two years instead of every year, as the process involves quite an extensive work and, the sufficient

¹ *Regulatory Framework for Long-term Demand Forecasting and Power Procurement Planning*, CER Monograph, Book ISBN:978-93-5321-969-7, https://cer.iitk.ac.in/assets/downloads/CER_Monograph

and updated data may not be available within a span of a year, and may not add significant value to the forecast. However, granularity of forecast should remain one year.

- 4. Consideration of battery energy storage in power procurement plan (Clause 3.2):** Storage, if implemented by a discom or generator having PPA with the discom, does not increase the supply of energy (MUs)² but may be able to supply power (MW) to meet higher demand during desired time blocks. Hence, it is suggested that the storage should not be considered as a part of power procurement plan.
- 5. Planning Reserves:** From a resource adequacy³ point of view, a long-term planning exercise should also consider planning reserves, as highlighted in the National Electricity Plan. While this has to be done at an integrated manner across the country, the regulation should provide an enabling provision to implement the same so that adequate reserves can be maintained, in a cost effective manner.
- 6. Availability of generation:** Forecasting the availability of various generation sources, apart from scheduled maintenance, is not feasible for the discom as each generation source may have its own uncertainties due to breakdowns, which cannot be forecasted. Hence, an assessment of the availability (rather than forecast) based on available information at the time of exercise being undertaken should be required as a more feasible alternative.
Clause 4.2 (e), which states “*Forecast of monthly and yearly availability...*”, may, hence, be rephrased as “*Assessment of monthly and yearly availability...*”
- 7. AI tools:** Application of Artificial Intelligence requires high frequency data and hence is not suitable for long-term forecasting (annual), but may be applied in the context of short-/medium-term forecast. **Clause 4.7 (3)** may be appropriately modified to exclude AI’s application for long-term forecast.
- 8. Resource Availability:** For assessing the availability, while developing the cost optimal resource plan, in **Clause 4.15**, variable cost and useful life of plant or till expiration of PPA should be used instead of the terms “*coal cost*” and “*useful life of technology*” respectively.
- 9. Placing data on websites (Clause 6.1):** The data mentioned in the clause should be placed on the respective websites within a week instead of 30 days. Since such an information is available with the SLDC/power procurement cell, it should be made available at the earliest.
- 10. Constitution of dedicated cell (Clause 7.1):** The organizational structure of such dedicated cell would need to cater to the impending as well as emerging needs of the sector in the state. Apart from organization structure, a training/onward education plan

² In fact, it would reduce MUs due to the efficiency factor.

³ Resource adequacy is a broader concept that also lays emphasis on reliability of supply.

should be put in place so that adequate number of trained officers are available for the cell, even after certain proportion of churning within or without the organization. The licensee may finalise the organization structure, composition of the team and their required qualification/experience also share the same with the Commission, and also provide the same on its website. Given the nature of the responsibilities of the cell, continuity of the staff/officers and their capacity building need to be emphasized.

11. **Definition of “Month”:** The “*Month*” means a calendar month as per the *British Calendar*”. The term “Gregorian Calendar” be used instead of the term “*British Calendar*”.
12. The term “*Co-gen*” may be rephrased as “*Cogen*”, a more often used term, in clause 3.2(e).