

Explanatory memorandum

on

Draft Joint Electricity Regulatory Commission for the UT of Jammu & Kashmir and the UT of Ladakh (Framework for Resource Adequacy) Regulations, 2024.

Explanatory Memorandum explaining the reasons and circumstances leading to the draft Joint Electricity Regulatory Commission for the UT of Jammu & Kashmir and the UT of Ladakh (Framework for Resource Adequacy) Regulations, 2024 is as under:

- 1.1. Consequent to the enactment of the Jammu and Kashmir Reorganization Act, 2019 and repeal of the Jammu and Kashmir Electricity Act 2010, the Central Electricity Act, 2003 was extended to the newly created union territory of J&K and union territory of Ladakh.
- 1.2. The erstwhile Jammu & Kashmir State Electricity Regulatory Commission (J&K SERC) constituted under J&K Electricity Act 2010 was carrying out regulatory functions in respect of the erstwhile State of Jammu and Kashmir. The J&K Electricity Act 2010 was repealed and Electricity Act 2003 was made applicable to the Union Territory of Jammu & Kashmir and the Union Territory of Ladakh. The Joint Electricity Regulatory Commission for the Union Territory of Jammu & Kashmir and the Union Territory of Ladakh (herein after called the “JERC J&K and Ladakh” or “the Commission”) was established under Section 83 of the Electricity Act, 2003 by the Government of India vide notification dated 18th June 2020 and started functioning with effect from 28th August 2020.
- 1.3. The Explanatory Memorandum has been prepared for reference of Stakeholders and the general public for offering comments/ suggestions on the Draft JERC for the UT of J&K and the UT of Ladakh (Framework for Resource Adequacy) Regulations, 2024.

Background

India is aiming to install 500 GW of non-fossil fuel capacity comprising primarily of RE by 2030. It has made rapid progress towards achieving these goals. Between FY 2015 and FY 2023, the RE capacity increased three times from 40 GW to 125 GW, supplying close to 10% of the total electricity generated in FY 2023. As it embarks on this transition, the electricity sector faces several challenges. One of the main challenges is the treatment of RE capacity to meet peak load. Another challenge is increased system ramping and balancing needs due to increasing RE penetration. Contracting additional thermal capacity to meet peak load without considering renewables or other flexible resources could result in an oversized system and inflated costs. Additionally, systematic capacity sharing amongst states is another important requirement that would enable leveraging load and resource diversity in a nationally connected grid.

The Forum of Regulators (FoR) in their 86th meeting held on 26 June 2023 endorsed the report prepared by its working group on Resource Adequacy Framework and the Model Regulations and decided to implement the same in all the States/UTs.

Ministry of Power, Govt of India in its communication dated 28 June 2023 issued Guidelines for Resource Adequacy Planning Framework for India to be followed by all the institutions and stakeholders, who shall ensure sufficient tie-up of capacities to meet the resource adequacy requirements on different time horizons.

Hence, there is need for specific regulations for resource planning which considers high penetration of renewable energy. Existing practice of distribution licensee for capacity addition to meet peak demand based on excel based model has resulted in oversized system. Having a well-designed RA framework would be important to scale up renewable in the grid while ensuring grid reliability in a cost-effective manner.

RA entails the planning of generation and transmission resources for reliably meeting the projected demand in compliance with specified reliability standards for serving the load with optimum generation mix. This would also facilitate the scaling of RE while considering the need, inter alia, for flexible resources, storage systems for energy shift, and demand response measures for managing the intermittency and variability of renewable energy sources. RA analysis provides the tools to determine whether there are enough resources and, if not, what type of resource is needed to meet reliability needs and contract these capacities. At the same time, any surplus resulting in the analysis would facilitate the trading of the same with other constituents ensuring optimal capacity utilisation.

Well-designed system planning and RA frameworks, coordinated with State/UT-level resource planning and procurement and supported by market mechanism, are critical to scaling renewable deployment with less curtailment and less financial and operational stress on conventional assets. System planning and RA analysis can help facilitate generation capacity sharing among States/UTs, increasing the utilization of existing generation assets.

1.4. The key aspects of the (Framework for Resource Adequacy) Regulations, 2024 are-

- a) **Demand assessment and forecasting**
- b) **Generation resource planning**
 - (i). **Capacity crediting (CC)**
 - (ii) **Planning reserve margin (PRM)**
 - (iii) **RA requirement and allocation**
- c) **Procurement planning**

- (i) **Procurement resource mix**
- (ii) **Procurement type and tenure**
- (iii) **Capacity trading/sharing constructs**

d) Monitoring and compliance

This involves the development of an overarching framework, process flowchart and timeline, matrix for roles and responsibilities, and matrix for deliverables to ensure smooth and successful implementation of the RA framework.

In summary, the "Joint Electricity Regulatory Commission for the UT of Jammu & Kashmir and the UT of Ladakh (Framework for Resource Adequacy) Regulations, 2024" aims to establish a robust framework for Resource Adequacy planning within the Union Territories of J&K and Ladakh.

1.5. The framework for the Regulation is as follows:

Chapter -1: Preliminary

Chapter -2 General

Chapter -3 Demand Assessment and Forecasting

Chapter -4: Generation Resource Planning

Chapter -5: Procurement Planning

Chapter -6: Monitoring and Compliance

Chapter -7: Roles and Responsibilities and Timelines

Chapter -8: Miscellaneous

For details, draft Regulations uploaded on our official website <https://www.jercjkl.nic.in/> are available for information and reference of general public/stakeholders.

By order of the Commission.

Secretary, JERC
J&K and Ladakh