## Prayas (Energy Group) Comments on

### Draft Electricity (Right of Consumers) Amendment Rules, 2021

Submitted on 21<sup>st</sup> October 2021

The proposed amendment to the draft Electricity (Rights of Consumers) rules are intended to ensure reliability of supply to consumers. We submit our comments and suggestions on the electricity (rights of consumers) amendment rules, 2021 which highlight the need to include better strategies to assess reliability and quality of supply and also suggest some changes based on existing implementation challenges and SERC Standards of Performance (SoP) regulations. As such these proposals are best initiated by SERCs at the state level with inputs from the state stakeholders. To kickstart the processes, it can be stipulated through framework prepared by FoR and through provisions in the National Electricity Policy. With the concurrent jurisdiction in the electricity sector, it is appropriate to use framework evolved through FoR deliberation for efforts towards benchmarking and improving reliability indices through measurements and third party audit, encouraging supply reliability through storage based options and holding DISCOMs accountable for increasing reliability.

The provisions of the draft amendment are marked in *blue* and the suggested edits in **black**. The rationale for the suggestions are also detailed.

#### Draft Rule 2.a.3

#### Accordingly, the State Commission shall give the trajectory of System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI) for the cities.

SERC Standards of Performance (SoP) regulations specify the need for benchmarking reliability indices but no state has been able to effectively benchmark and track performance till date. This could be also related to challenges with recording interruptions at the consumer level effectively and the issues with using a singular benchmark across the state. With smart metering efforts, tracking reliability at consumer level should be easier in the future. However, in the interim, till large scale deployment and data communication takes place in a streamlined manner from smart consumer and interface meters, it is important to also track reliability parameters that are available such as feeder reliability and DT failure rate.

The proposal is appreciated as benchmarks and trajectories can help DISCOMs and regulators develop realistic objectives towards better reliability. However, as the commitment towards 24\*7 power for all needs to be achieved, it is essential that trajectories and benchmarks are set for both cities (urban) and rural areas. In addition, the benchmarks should not be restricted to SAIFI and SAIDI at the consumer level but also track feeder reliability indices as well as DT failure rate and average time taken to repair

DTs (based on time of reporting of DT failure, entry for when replacement was sent and log of when DT was energized).

We propose that the framework will include the clause: State Commissions shall give trajectory of SAIFI and SAIDI for urban and rural divisions served by the DISCOM and revise the same every 5 years along-with the process of SoP revision, based on past reports and third-party audit. The state commissions shall also give division-wise trajectory for DT failure rate reduction and revise the same every 5 years. The state commission shall also mandate DISCOMs to report outage durations and number of outages at feeder or DT level in the electricity bills of consumers and provide annual reliability values on their respective websites and apps. With every DISCOM tariff revision process, there must be detailed evaluation of performance of division-wise reliability indicators (SAIFI, SAIDI, Feeder reliability, DT failure rate) vis-a-vis the specified trajectory.

#### Draft Rule 2.a.3.

# The State Commission may consider a separate reliability charge for the Distribution company, if they require funds for investment in the infrastructure for ensuring the reliability of supply to the consumers.

Reliability charges, linked to additional power procurement to provide uninterrupted supply, have been adopted by regulators in Maharashtra, Haryana and Bihar in the past. Thus, based on state-specific requirements, the levy of such a charge can be tried by regulators even without an enabling framework.

The proposed rule seeks to link reliability charges to capital investment revenue recovery. Significant regulatory scrutiny would be needed to identify infrastructure investment required solely to increase reliability and pinpoint the impact that investment has to increase reliability. Capital investment approval processes in many states still do not evaluate and track benefits along with cost impacts of capitalization. Since recovery of cost of capital would require several years of levy of charge, it is unclear if it would be possible to taper the charge over time or link the charge to reliability as per benchmarks in the area. Such practical challenges make it difficult to justify application of such charges especially in rural areas where infrastructure investments for network augmentation are most needed. The process of removal/revoking of reliability charges where outages are more, can be cumbersome.

#### Hence, we propose that this statement be removed.

#### Draft Rule 2.a.4.

Consumers, who are using the Diesel Generating sets as essential backup power, shall endeavor to shift to cleaner technology such as RE with battery storage etc in five years from the date of the publication of this amendment or as per the timelines given by the State

# *Commission for such replacement based on the reliability of supply by the distribution company in that city.*

This proposal is much appreciated, as it may help consumers to move away from diesel powered generator sets. We believe this can also help in the design and development of programs to align with the desired objective.

For example, the Ministry of Power could launch a new national program to provide reliable and quality 24X7 supply to all public healthcare services (especially in rural areas with higher needs) through the deployment of battery energy storage systems (BESS). Battery storage pack prices, especially those based on li-ion chemistries have fallen dramatically in the last decade, from \$1,100/kWh in 2010 to \$137/kWh in 2020, a drop of 89% in real terms. Projections are for these to further drop by over 50% in the coming decade. Apart from their ever-increasing cost advantage, they are extremely modular in deployment and have very low gestation periods and land/space requirements. They have extremely quick response times (on the order of milli-seconds) and can thus be a valuable contributor to providing reliable, uninterrupted and quality 24X7 supply, especially in critical social and economic applications such as healthcare. The importance of battery storage is already outlined in the 'National Mission on Transformative Mobility and Battery Storage' approved by the Cabinet in March, 2019.

Agencies such as EESL or SECI could aggregate demand from various healthcare centers for a district/state and facilitate bulk procurement, deployment along with operation and maintenance of these standardized systems. Large-scale procurement would further reduce costs, even though the existing counterfactual for back-up power through diesel gensets is already very costly. MNRE or MOHFW would provide graded declining incentives/subsidies (say for 75% or 50% or 25% of costs) over the years linked to specific milestones, thereby encouraging early adoption by states/DISCOMs. Appropriately sized BESS could also bring in much needed resiliency in the power supply situation for this critical public service.

This centralised procurement programme can also be supported by complementary efforts by state level agencies especially the regulatory commission and the distribution companies.

We propose that the addition of the following: State Commissions can mandate DISCOMS to support the process of migration from diesel powered backup to solar +battery systems, beginning with public utility centers like health care centers, schools and offices. The Commission can, in consultation with DISCOMs, plan for bulk procurement of battery systems to address reliability issues for essential, public services to reduce cost and ensure efficient roll out.

#### Draft Rule 2.a.5.

The process of giving temporary connections to the consumers for construction activities or any temporary usage etc. shall be simplified by the distribution licensee and given on an

#### urgent basis and not later than 48 hours. This will avoid any use of DG sets for temporary activities in the area of the distribution licensee. The temporary connection shall be through a prepayment meter only.

Most SoPs specify the time- line for providing temporary or permanent connection as 7 days. As per the draft rule, the time specification for temporary connection should be revised to 48 hours. It is unclear if the time of 48 hours is sufficient to ensure that all technical and safety standards are complied with. If yes, the time-line for permanent connection can also be revised accordingly.Provision of temporary connections through a pre-paid system may not be possible for all consumers as temporary connections are provided for a variety of services and for varied durations. For eg. Some agricultural consumers in Madhya Pradesh are provided as temporary connections to meet seasonal demand. The specification in the framework should thus be more flexible.

In this context, the following amendment is proposed:

The process of giving temporary connections to the consumers for construction activities or any temporary usage etc. shall be simplified by the distribution licensee and given on an urgent basis and not later than 48 hours where feasible, subject to network extension requirements, technical specifications and standards adhered to by the DISCOMs. This will avoid any use of DG sets for temporary activities in the area of the distribution licensee. The temporary connection shall be through a prepayment meter, wherever feasible <del>only</del>.

-----XX------