

Prayas (Energy Group)'s comments in the matter of MERC's (Grid Interactive Rooftop Renewable Energy Generating Systems) (Second Amendment) Regulations, 2024

The Maharashtra Electricity Regulatory Commission notified the Maharashtra Electricity Regulatory Commission (Grid Interactive Rooftop Renewable Energy Generating Systems) Regulations, 2019 on 30th December 2019. The Ministry of Power, Government of India has notified the Electricity (Rights of Consumers) Rules, 2020 and the Electricity (Rights of Consumers) Amendment Rules, 2021. These changes have been appropriately incorporated in the Maharashtra Electricity Regulatory Commission (Grid Interactive Rooftop Renewable Energy Generating Systems) (First Amendment) Regulations, 2023.

Some of the highlights of 1st Amendment are

1. In case of net metering, the capacity of the RE system was increased to 5 MW from 1 MW, or Contract Demand/Sanction Load of consumer, whichever is lower.
2. It introduced new concept of gross metering and group net metering and amended definition of net-billing.
3. No levy of Grid Support Charges until deployment under rooftop reaches 5000 MW in the state.

Recently, the Commission has proposed the 2nd Amendment, which has introduced virtual net-metering arrangement and has attempted aligning the regulations with recent changes introduced through e Electricity (Rights of Consumers) Amendment Rules, 2024¹. Our comments and suggestions are detailed below.

1. Introduction of Virtual net-metering arrangement

Regulation 2.1(z)(a) of second amendment defines Virtual metering as follows:

“Virtual Net Metering” means a modality whereby entire energy generated from a Renewable Energy Generating System is exported to the grid from Renewable energy meter or gross meter and the energy exported is adjusted in either one or more than one participating Residential consumer(s) including common connection of housing society located within the same Distribution Licensee’s area of supply.”

We appreciate introducing the concept of virtual net metering arrangement. We suggest that the arrangement should not be limited only to residential consumers also be allowed for public bodies (as a consumer category). For such consumers, virtual net metering arrangement should be allowed for a group of public bodies/services within the same Distribution Licensee’s area of supply. This will address issue of timely revenue recovery and ensure reliable supply for these services. The energy settlement of such consumers can be done in similar way as proposed in the draft regulation. The detailed framework suggested for public bodies can be referred [here](#)².

The condition of having no pending arrears (Regulation 6.6) could be relaxed for VNM arrangement only for public bodies.

Furthermore, proposed energy accounting for virtual net metering arrangement is as follows:

¹ https://powermin.gov.in/sites/default/files/Electricity_Rights_of_Consumers_Amendment_Rules_2024_0.pdf

² https://energy.prayaspace.org/images/pdf/virtual_net_metering.pdf

“11.10(b) The electricity consumption in any time block (e.g., peak hours, off-peak hours, etc.) shall be first compensated with the electricity generation in the similar time blocks in the same billing cycle of the participating consumer(s). Any surplus generation over consumption in any time block in a billing cycle shall be accounted as if the surplus generation/ Energy Credits occurred during the off-peak time block for Time of Day (TOD) Consumers and normal time block for Non-TOD Consumer.”

VNM is akin to group captive arrangement. Apart from getting net-metering, i.e. free energy banking facility, there are to be no Open Access charges on VNM arrangement as well. This will make the proposed arrangement highly concessional and lucrative for high use residential consumers with the result that DISCOMs will have to pass on these additional costs to other consumers.

Hence our recommendation is that concessional net-metering with banking be only restricted to systems up to 10 kW, above which all OA charges (in case of VNM) and realistic banking and any other charges should be levied. A detailed proposal in this regard can be found [here](#). Further, given the introduction of VNM, the deferral of OA or GSC charges should not be extended to 5,000 MW but should be levied after 2,000 MW is installed in the State.

2. Strengthening of distribution infrastructure

The commission has proposed the following for strengthening of distribution infrastructure:

“ 9.7 (a) During the time period from the feasibility study or deemed acceptance of the application till the completion of installation, in case, there is any requirement of upgradation of distribution infrastructure like augmentation of service line, distribution transformer capacity, and the like for installation of the required capacity of roof top solar photo voltaic system, the same shall be carried out by the Distribution Licensee in adherence to the timeline specified in Maharashtra Electricity Regulatory Commission (Electricity Supply Code and Standards Of Performance for Distribution Licensees, including Power Quality) Regulations, 2021 as amended from time to time:

Provided that the cost of strengthening the distribution infrastructure, including distribution transformer, as necessary, to facilitate the installation of roof top solar photovoltaic systems, shall be included in the annual revenue requirement of the Distribution Licensee.”

While this clause is in principle aligned to the latest amendment to Consumer Rights Rules (Feb 2024), the rooftop capacity limit (5 kW or higher capacity as prescribed by the State Commission) for system strengthening as noted by the Rules has not been adopted by the Commission. This should be seen in addition to increase in the rooftop capacity limit to 5 MW (from earlier 1 MW) as per the 1st Amendment. The proposed provision should be amended accordingly.

We suggest that the capacity limit can be kept at 5 kW or at the most at 10 kW. This will result in cost sharing by prosumers with larger rooftop installed capacity in regard of strengthening the distribution infrastructure, which is being built primarily for these prosumer(s).

3. Timeline for feasibility study

Rule 4(11) of Electricity (Rights of Consumers) Amendment Rules, 2024 specifies that:

“(11) The Commission shall specify the maximum time period, after submission of application complete in all respects, not exceeding three days in metropolitan areas, seven days in other municipal areas and fifteen days in rural areas, within which the distribution licensee shall provide new connection or modify an existing connection:

Provided that for rural areas of States and Union Territories having hilly terrain, the maximum time period for new connection or modification of an existing connection, after submission of

application, complete in all respects, shall not exceed thirty days:

Provided further that where such supply requires extension of distribution mains, or commissioning of new substations, the distribution licensee shall supply the electricity to such premises immediately after such extension or commissioning within a period not exceeding ninety days.

Explanation: For the purposes of this rule, the term 'States and Union Territories having hilly terrain' means the States of Arunachal Pradesh, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttarakhand, Union Territory of Jammu & Kashmir and Union Territory of Ladakh."

The draft regulation has proposed the following provisions in Annexure-I dealing with Procedure for Application for connectivity of Renewable Energy Generating System with Distribution Licensee's Network:

"For installation of Renewable Energy Generating Systems, the technical feasibility study shall be completed within a period of (15) days and the outcome of the study shall be intimated to the applicant, failing which it shall be presumed that the proposal is technically feasible:

Provided that the applications for Renewable Energy Generating Systems upto 10 kW capacity, complete in all respects shall be deemed to have been accepted without requiring technical feasibility study and any commensurate enhancement of the sanctioned load of the consumer, as may be required, shall be carried out by the Distribution Licensee." (emphasis added)

While this will reduce burden on small prosumers, there is a need to ascertain that the distribution network stability limits are adhered to. Hence, it is proposed that a pre-condition for this provision is included, which mandates the need to study the technical feasibility of total existing and in-pipeline rooftop capacity as it reaches closer to the Distribution Transformer (DT) capacity.

4. Impact Reporting

The commission should direct the DISCOMs to submit an annual report on the implementation of the regulation, which shall also provide information on

- Total applications received, approved, rejected (by DISCOMs) and cancelled (by consumer)
- Number of consumers availing such arrangement,
- time taken in accepting the application (average time, min and maximum time in days),
- number of applications rejected and categorising them on reasons given for rejection,
- MUs generated and wheeled under different metering arrangements and
- impact of these on DISCOMs' revenue and operation.

Separate reporting for each metering arrangement shall be made by each DISCOM of the state, which shall also be publicly available on SERC's website. These reporting will provide feedback to the SERC on annual basis.