

**BEFORE THE HARYANA ELECTRICITY REGULATORY COMMISSION AT
PANCHKULA**

Case No. HERC/PRO- 69 of 2019

Date of Order : 26.02.2020

In the Matter of

Petition for directions in regard to the Net Metering Regulations, 2019 for appropriate amendments to be made in the applicable regulations.

Petitioner New & Renewable Energy Department, Haryana,
Akshay Urja Bhawan, Sector 17, Panchkula Haryana

QUORUM

Shri D.S. Dhesi, Chairman
Shri Pravindra Singh, Member
Shri Naresh Sardana, Member

Order

1) Brief Background of the Case

- a)** New & Renewable Energy Department, Haryana in the State of Haryana undertaking the functions of State Nodal Agency for implementation of Renewable Energy Programmes and thus implementing the installation of Grid Connected Rooftop Solar Power Programme..
- b)** The Hon'ble Commission in exercise of the powers under Section 181 of the Electricity Act, 2003 has notified Haryana Electricity Regulatory Commission (Rooftop Solar Grid Interactive System Based on Net Metering) Regulations 2019 (hereinafter referred to as '**Net Metering Regulations, 2019**').
- c)** The implementing the installation of Grid Connected Rooftop Solar Power Programme is affected by the Net Metering Regulations, 2019 as without Net Metering facility, this programme could not be implemented. Further, this programme is a green energy programme which is the need of the hour and require special emphasis.

d) It is also to mention here that the Ministry of New and Renewable Energy, Government of India has proposed target for promotion of Renewable Energy, namely to add 1,00,000 MW of Solar Power by the year 2022 out of which 40,000 MW is under the Rooftop Solar Plants which turns into a target of 1600 MW Rooftop Solar Power Plant for Haryana by the year 2021-22.

e) New & Renewable Energy Department respectfully submits that there are some realistic issues on the Net Metering Regulations, 2019 which needs amendment in Net Metering Regulations 2019. Following amendments are required in the Net Metering Regulations 2014:

I As per Clause no. 5.3 of Net Metering Regulations 2019,
The maximum rated capacity of rooftop solar system, to be installed by any eligible consumer in his premises, shall not exceed its connected load in case of Low Tension connection and contract demand in case of High-Tension connection, subject to maximum of 2MW.

Provided further that the eligible consumer is mandatorily to put up 25% battery storage for any incremental capacity from over and above 1 MW and up to 2 MW. This battery shall be able to store and deliver energy for two hours.

Provided further that minimum rated capacity of rooftop solar system that can be set up under net metering arrangement shall be not less than 1 kW.

Provided also that a variation in the rated capacity of the system within a range of five percent shall be allowed with reference to the capacity caps given above.

Provided also that distribution licensee shall accept SPV Power as per useful life of SPV System. These Regulations shall not apply to a generator who generates power through rooftop solar system in more than one premises or over a water body, whether moving or static.

In this regard it is submitted that the condition of putting mandatory 25% battery storage is not practical as if any consumer want to install 2 MW solar power plant under Net Metering facility then he has to install two systems as both the systems one without battery bank of 1 MW capacity and other 1 MW with battery storage. Technology of system with battery bank and system without battery bank are totally different. It is also to mention here that in the ground mounted solar power projects without battery storage, string inverters are being used which are to be installed near the solar modules in decentralized way to reduce the DC line losses. But in the project with battery storage the Power Conditioning Unit (instead of inverters) is to be installed at central place due to which the line losses will be increased. Further, the efficiency of the Power Conditioning Unit is lower than that of inverters thus wastage of power will be there in systems with battery storage. Thus, it is not technically

advisable to mandate battery storage with systems above 1 MW. However, if any developer wants to install such battery storage with the system, then it shall be given some benefits over and above the system without battery storage but may not be mandated.

Accordingly, it is proposed that:

The para 2 of clause no. 5.3 “Provided further that the eligible consumer is mandatorily to put up 25% battery storage for any incremental capacity from over and above 1 MW and up to 2 MW. This battery shall be able to store and deliver energy for two hours” may be dropped.

- II** As per Clause No. (x) of 2 of the Net Metering Regulations, 2019, the “settlement period means the period beginning from the first of April in a calendar year and ending with the thirty first of March of the next year, i.e., same as ‘financial year’;
Provided that the first settlement period for a newly commissioned roof top solar system will be from the date of commission to March of next year.”

Also as per Clause No. 11.1 of 11(Energy Accounting — Net Metering Arrangement) of the Net Metering Regulations, 2019, the Energy Accounting has been defined as “The energy accounting and settlement procedure for consumers installing and operating rooftop solar system under net metering arrangement shall be as per the following procedure:
a) Electricity generated from a rooftop solar system shall be cumulatively capped at 90% of the electricity consumption by the consumer at the end of settlement period which shall be the relevant financial year. In case solar power system is connected to the grid during part of the year, the 90% capping shall be on the electricity consumption from the date of connection (to the grid) to the end of the financial year. The carry forward of excess energy generation shall be allowed from one billing cycle to the next billing cycle up to the end of the same financial year. Any excess generation (above 90%) at the end of the financial year shall not be offset against the consumer’s consumption. There shall be no carry forward of excess energy to the next financial year.”

It is to mention that there is more consumption during the period from May to September (Summer season) and low consumption during the winter season from October to April. As the settlement period is defined as from April to March, so the power produced during the winter season remain surplus and goes waste on the part of the consumer as no carry forward is allowed after March, the end of financial year. For avoiding this wastage of solar power, the settlement period may be re-defined as from October to September so that most of the benefit may be availed by the consumer and solar power may not remain surplus and the consumer

may get proper benefit of the solar power plant installed with net metering facility.

Accordingly, it is proposed that para one of Clause No. (x) of 2 of the Net Metering Regulations, 2019 the “settlement period: means the period beginning from the first of October in a calendar year and ending with the thirtieth of September of the next year”.

III New Amendment: New Metering Arrangement

It is needed to promote and facilitate new and innovative implementation models for installation of rooftop solar systems. These models will focus on bringing in new types of metering arrangements for eligible consumers, especially located in the urban centers of Haryana and having constraints like access to adequate rooftop area/inaccessible rooftops, etc. One specific metering arrangement which may be promoted is Virtual Net Metering (VNM) and its sub-categories including Group Virtual Net Metering, Community Net Metering, etc.

(i) Virtual Net Metering (VNM):

It is a metering arrangement by which a distribution licensee allows utilisation of credit of solar energy generated by a rooftop solar system at one point (premises), at another point (premises) within its area of supply. The VNM is a bill crediting system for consumers who intend to set up a rooftop solar system but have inadequate rooftop space to deploy these systems. This enables setting up a rooftop solar system externally and the net metering benefits (energy credits) are shared amongst the participating consumers. In this case, the consumer receives credit on their electricity bill for any excess energy produced by the rooftop solar system installed at another location.

(ii) Single Owner – Multiple Premises VNM:

Under single owner - multiple premises VNM may be allowed, which may also be termed as Group VNM (G-VNM), a single owner can install rooftop solar installations at any of its premises and utilise the energy generated by this system across all participating premises within the licensed area of the same DISCOMs. All consumers categories of the DISCOMs are eligible to participate in G-VNM.

Under this arrangement, all the participating premises located within the supply area of the same distribution licensee and have electricity connections in the name of same person/ entity. The person/entity participating under this arrangement may set up rooftop solar system(s) and get the benefits of net metering arrangement simultaneously at its multiple premises within the supply area of the same distribution licensee. For the purpose of G-VNM, the premise where rooftop solar system is set up shall be referred to as a G-VNM generator, and all the other participating premises shall be referred to as a G-VNM consumers.

(iii) Bulk Supply VNM (BS-VNM):

To facilitate rooftop solar net metering facility for consumers may be allowed where the sanctioned load and rooftop area is shared between multiple consumers under bulk supply tariff regime through a single connection, such as bulk supply (single point supply, multiple consumers and multiple owners) group housing societies.

(iv) Community Virtual Net Metering (C-VNM):

This net metering arrangement may be applicable only to the residential consumer category and government departments. Only those consumers may be eligible that have either inadequate rooftop size or non-availability of rooftop space for installing rooftop solar systems, such as residential consumers staying in apartments, high rise building, etc. For this the consumer first needs to set up rooftop solar system at its own premises, once that rooftop space has been fully utilized only then the consumer can participate in C-VNM.

It is proposed that Virtual Net Metering (VNM), Single Owner – Multiple Premises VNM, Bulk Supply VNM (BS-VNM), and Community Virtual Net Metering (C-VNM) may be allowed in the State.

1.2 In view of above, the Petitioners have prayed as follows:

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- i. 1. *New & Renewable Energy Department, Haryana submits that the Hon’ble Commission may amend the Net Metering Regulations 2019 accordingly.*
2. *It is respectfully submitted that the Hon’ble Commission may be pleased to amend the Haryana Electricity Regulatory Commission (Rooftop Solar Grid Interactive System Based on Net Metering) Regulations 2019.”*

2) Commission’s Order:-

The matter was deliberated in the Commission’s 107th meeting held on 6th Feb. 2020. The Commission, after considering the matter in detail, found the petition totally devoid of merit. Therefore, the present Petition is dismissed.

This Order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 26.02.2020

Date: 26.02.2020

(Naresh Sardana)

(Pravindra Singh)

(D.S. Dhesi)

Place: Panchkula

Member

Member

Chairman