



TAMIL NADU ELECTRICITY REGULATORY COMMISSION

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To

The Chairman cum Managing Director/TANGEDCO,
6 th floor, TANTRANSCO Building,
144,Anna Salai,
Chennai - 600 002.

Lr.No. /TNERC/DE/DDE2/ADSA/F. GISS /D.No. 710 /2023 dt. 29-05-2023.

Sir,

Sub.: TNERC – Issues faced by consumers during execution of Roof Top Solar projects – Non adoption of GISS Regulation, 2021 by certain field engineers – Reg.

Ref.: 1. Tamil Nadu Electricity Regulatory Commission (Grid Interactive Solar PV Energy Generating Systems) (GISS) Regulations, 2021.
2. Lr.No. /TNERC/DE/DDE2/ F. GISS / D.No.1448 /2022. dated 10.11.22
3. e-mail received from M/s. Virupaksha controls & Automation limited, Chennai dated 01.04.2023.

I am directed to state the following:

Based on the directions of Govt. of India issued vide the Electricity (Rights of Consumers) Rules, 2020 and further amendment issued vide the Electricity (Rights of Consumers) Amendment Rules, 2021, TNERC has notified the Tamil Nadu Electricity Regulatory Commission (Grid Interactive Solar PV Energy Generating Systems) (GISS) Regulations, 2021 for the implementation of Net-metering, Net feed-in and Gross metering mechanism for solar power generation plants.

Several representations are being received from developers and consumers on the hurdles faced by them in various aspects. In this regard, many clarifications

have been issued to TANGEDCO vide reference (2) cited with a direction to give clear instructions to field engineers to follow the provisions of the regulation scrupulously. However complaints are being received regularly.

The issues further raised by the solar EPC developer and due clarification are issued as below:

1. Consideration of Solar plant capacity :

It is reported that, for considering the total solar load capacity, some of the field engineers of TANGEDCO are accounting the total DC solar panel capacity as plant capacity. It is to be noted that sub-regulation 4.5 & 4.6 of the GISS regulations, 2021, specify as follows:

“4.5 The Solar plant capacity in all categories shall be represented by the output capacity on AC side.

4.6 Addition of capacity of DC panel is left to the option of eligible consumer / prosumer / generator to the extent of the sanctioned GISS plant capacity (AC output capacity) which will be reckoned by the AC output demand reached and recorded in the Gross Generation meter for the given billing cycle. For less than 10 kW system the demand reached shall be assessed from the inverter reading;”

In this regard, the following clarification is given:

Hence all the field engineers shall be directed to account the inverter AC output capacity as solar plant capacity.

However, in some cases, the consumer may install marginally higher capacity of inverter (as the inverter rated capacity is normally an integer value i.e., 5,6,8,10 kW etc.,) which may not match comparatively lesser DC panel capacity. In that case, the DC panel capacity may be reckoned as total solar connected load.

Therefore either the inverter output capacity on AC side or the solar panel capacity on DC side, whichever is lower shall be considered.

In any case, the demand recorded in the meter shall act as a limiting factor of plant capacity. The excess demand if any beyond sanctioned plant capacity shall be taken care by the following sub-regulation:

“6.10 For the purpose of billing the import, export and net energy, the units and other allied parameters recorded in the respective import and export and net register of the consumer bi-directional meter shall be reckoned respectively. The maximum demand recorded in the gross generation meter or inverter, as the case may be, shall not exceed the sanctioned/ contracted plant capacity of GISS in any billing cycle. If the demand exceeds the sanctioned limit in any billing cycle, the quantum of exported units recorded in the bi-directional meter during the respective demand integration period (DIP) in case of gross metering and respective billing cycle in case of net-metering and net billing, proportionate to the portion of demand that exceeded over the sanctioned limit, shall be treated as inadvertent injection in to the grid and shall not be eligible for payment by the Licensee;”

2. Issue of multiple generation meters in a single service connection:

It is reported that some of the TANGEDCO engineers are not allowing to install multiple inverters in a single service connection. It is also reported that the consumers are not allowed to install 3 single phase inverter in each phase to overcome the issue of two phasing in rural feeders, to which the solar plants are connected. It is to be noted that, the following provision is given in clear terms to permit multiple inverter in a single service:

“5.3 In case of multiple GISS units under one service connection, individual generation meter for each inverter /set of inverters in each spot/place/building of the premise shall be installed. The readings of the generation meters shall be assessed individually to be added together (both energy and demand recorded for each billing cycle) to one value of gross generation to be reckoned as the unit consumed and demand reached for the respective billing cycle of the service connection concerned for all billing purpose;”

Hence it is directed to instruct the field officers for the provision of multiple inverter readings in a service connection, in line with regulation.

3. Assessment of reading for Solar generation plants upto 10 kW:

It is further reported that, for the assessment of network charges, for cases upto 10 kW, the inverter readings are not at all taken by the field engineers. This violates the following provision:

“ 5.4 For consumers up to the sanctioned load of 10 kW, the generation of solar energy shall be computed based on the stipulated CUF or energy recorded in the inverter whichever is lower in lieu of installation of gross meter for such assessment. If any dispute arises over such method of computation of energy and assessment of demand, the aggrieved party can install the generation meter at his cost to enable actual assessment of readings relating to the generation; “

Hence wherever inverter reading is available, the same may be assessed as per the above regulation and accounted for billing the network charges.

4. Procurement of generation meter for existing consumers of more than 10 kW:

It is reported that in solar services of more than 10 kW, neither the Licensee install meter nor the consumers are allowed to procure meters from the list of firms approved and hosted at TANGEDCO site.

In this regard, it is clarified as follows:

As per sub-regulation 5.5 read with 7.7,

For the existing consumers having solar connected load of more than 10 kW, it is the responsibility of the licensee to fix generation meter. Till meter is fixed, solar generation shall be accounted based on CUF. If the consumer opts to purchase his own meter, he shall be allowed to procure the same from the list of firms approved and webhosted in the licensee website. On receipt of meter along with the test certificate, the licensee shall install the meter in the consumer location. If at all, licensee wants to test the meter procured by the consumer, it can be tested in the Licensee lab. The duration of such testing and further commissioning of plant shall not exceed the duration limit specified in the sub-regulation 15-11.

5. Whether existing uni / bi-directional meter can be used as solar generation meter:

One of the Solar panel developer raised a query that, whether the existing uni / bi-directional meter which is being utilised for assessment of the existing distribution service connection can be utilised as solar generation meter.

In this regard it is clarified as follows in line with regulation 5:

The existing uni / bi-directional meter of a cannot be utilised as solar generation meter.

The installation of solar generation meter is to assess the total solar generation units/demand for the purpose of billing network charges. To fix solar generation meter, a separate uni-directional generation meter with demand recording facility is to be installed.

Sub-regulation 5.5 and 5.6 stipulate the methodology of assessing and billing the total generation of solar energy for consumers of sanction load up to 10 kW and more than 10 kW respectively. The same to be followed scrupulously. Necessary modifications in the billing software, to align with the provisions of the regulation, shall be made without further delay.



Secretary,
Tamil Nadu Electricity Regulatory Commission.

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Copy to M/s. Virupaksha Controls & Automation limited.

