

ODISHA ELECTRICITY REGULATORY COMMISSION

Net Metering/Bi-Directional Metering & their Connectivity with respect to Rooftop Solar PV Projects on the Rooftop of Government/PSU owned Buildings; ORDER No. OERC- Engg. 02/2010/(Vol-III)/1597(A) Dated : 26.11.2014

Sl. No	Description	Summary
1.	Short Title	OERC Net-metering/ Bi-directional metering & their Connectivity with Rooftop Solar PV Projects on the Rooftop of Government/PSU owned Buildings
2.	Definitions and Interpretation	As per Regulations
3.	Self-owned, Net metering/ Bi-directional based Rooftop Solar PV Project	<ul style="list-style-type: none"> • Rooftop owner (consumer) to install the Rooftop Solar system at his own cost. • Electricity generated to be first used for consumer's captive load within the Rooftop owner's premises. Excess power may be fed into the grid through a Net-meter/ Bi-directional meter. • Net-generation to be credited to the owner's account and adjusted subsequently against imports from the grid.
4.	Third party owned Rooftop PV Net metering/ Bi-directional Metering	<ul style="list-style-type: none"> • Turnkey installers may lease Rooftop systems to individual building owners • Installers can also offer an integrated service of leasing, commissioning and maintaining the systems to owners • Electricity generated from the system to meet the Rooftop owner's internal electricity needs and the excess generation fed into the grid on Net metering/ Bi-directional metering basis.
5.	Capacity Limits	<ul style="list-style-type: none"> • Capacity of an individual Rooftop PV system to be the sanctioned load of the consumer. • Net/Bi-directional metered Rooftop Solar systems to utilize the same service line and installation being used by the consumer for drawl of power from utility network for injection of excess power into the Grid. • Basic grid interactive Photovoltaic system, detailed at Annexure-I of the order
6.	Interconnection Arrangements	<ul style="list-style-type: none"> • Net-metering/Bi-directional metering facility to be extended to the Solar power system installed in consumer premises. • These consumers are the "eligible consumers" for the purpose of Net-metering/ Bi-directional metering. • Interconnection for net-metering shall address parameters including connecting voltage level, minimum technical standards for interconnection as indicated by the Commission from time to time under relevant regulations and orders including OERC Distribution (Conditions of Supply) Code, 2004 and Central Electricity Authority technical standards for Connectivity of Distributed Generation resources Regulations 2013 and amendments thereto.
7.	Application	<ul style="list-style-type: none"> • Consumer to make an application to the Distribution Utility along with fee of Rs. 500/- in the prescribed format i.e., Annexure-II of the Order, available on the website of the Utility/ concerned sub-division office. • Before availing the permission for Solar Net/Bi-direction metering of Rooftop Solar PV project, consumer to enter into an agreement with the licensee in the Standard Agreement Form. • Permission to be normally issued within 15 days from the date of submission of the application
8.	Restrictions on level of overall or local Grid Penetration	<ul style="list-style-type: none"> • Licensee to provide Net/Bi-directional metering to all eligible consumers as long as the cumulative capacity of the distribution transformer shall not exceed 30% of the capacity of the transformer. • Quantum of electricity consumed by an eligible consumer, who is not defined as an obligated entity from the Rooftop Solar system under Net/ Bi-directional metering arrangement shall qualify as deemed Renewable Purchase Obligation (RPO) for the Distribution Licensee/bulk supplier.

9.	Metering Arrangement	<ul style="list-style-type: none"> • Two meters one for Solar generation and other for Import / Export measurement to be installed by the Solar power generator. • Generation meter to be installed at the generator end after the inverter at the ground floor to facilitate easy access for meter reading and the second meter to be a Net / Bi-directional meter (single/three) capable of recording import and export of power in kWh and for commercial settlements. • Meters to be MRI and AMR compliant. • For HT connections meter can be a Bi- directional meter (Category-B) complying with the existing IS-14697 and IS- 15959 standards • For LT connections, Meter to comply with the existing meter standards IS-13779 with additional requirement of two registers, as Import and Export register, to record the import and export of electricity. • Existing Net/Bi-directional meter already installed before the publication of standards to be allowed to continue. • Meters to adhere to the standards for consumers specified by the Central Electricity Authority (CEA) - Installation and Operation of Meters Regulations, 2006 and CEA (Installation and Operation of meters) Amendment Regulations, 2010 as amended from time to time. • Check meter to be installed for the Solar system having capacity more than 20kW and for capacity less than or equal to 20 kW, check meter to be optional. • Cost of meter(s) and connectivity to be borne by the eligible consumer and installed & tested by the Distribution Licensee. • Meters to be jointly inspected and sealed on behalf of both the parties and shall be tested by the licensee and installed in the presence of the representatives of the consumer or himself and the licensee with due acknowledgement. • Position & sealing of meters to be the same as applicable to consumer meters in CEA Metering Regulations/Supply Code • Meter reading, both Net and generation meters to be taken by the licensee and shall form the basis for commercial settlement. The copy of the meter reading statement shall be handed over to the consumer as soon as meter reading is taken.
10.	Energy Accounting	<ul style="list-style-type: none"> • Generation to be capped cumulatively at 90% of the electricity consumption by the consumer at the end of a settlement period which ends with the financial year (FY). In case of FY where COD occurs, 90% capping shall be on the energy consumed by the consumer from the date of COD to the end of the FY. • Carry forward of excess energy generation allowed from one billing cycle to the next billing cycle till the end of the same FY. Any excess generation (above 90%) at the end of the FY would be considered as free energy and shall not be offset against the consumer's consumption. • Energy cannot be carry forward to the next FY. • Imported energy shall be eligible for normal ToD benefit as per the order of the Commission prevailing at that time
11.	Billing and Payment	Refer Regulations
12.	LT Connectivity	<ul style="list-style-type: none"> • As specified in the CEA's (Technical Standards for Connectivity of the Distributed Generating Resources) Regulations, 2013 with amendments • Maximum capacity for interconnection with the licensee's system at a specific voltage level to be limited to the contract demand of the consumer as per his agreement with the licensee subject to maximum 1 MW for a single Net / Bi-directional metering point • Refer Regulations for other important clauses related to the technical and interconnection requirements

13.	Operation and Maintenance (O&M)	<ul style="list-style-type: none"> • To comply with the relevant standards and guidelines specified by the MNRE / BIS and CEA. • Responsibility of O&M of projects including accessories and apparatuses lies with the consumer. • Design and installation of the Solar Rooftop PV project should be equipped with appropriately rated protective devices to sense any abnormality in the system and carry out automatic isolation of the Solar Rooftop PV project from the network of the Distribution Licensee. • Installation shall meet all safety standards and safety certificates for the installations to be obtained from the appropriate authorities • For Details, may refer the Regulations
14.	Renewable Energy Certificate (REC) and Renewable Purchase Obligation (RPO)	<ul style="list-style-type: none"> • Solar Energy generated by Net/ Bi-directional metering project not eligible for REC • Energy generated from Rooftop Solar PV projects by an eligible consumer, who is not an obligated entity under net-metering arrangement, to qualify as deemed RPO for the distribution/bulk supply licensee. • Licensee to furnish a copy of energy generated by the consumer to GRIDCO.