Together, Let us light up our lives

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ODISHA ELECTRICITY REGULATORY COMMISSION
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No. OERC/RA/RCO-DRES-43/2026/414 **Dated: 10.04.2026**

PUBLIC NOTICE

Sub: Inviting Objection/ Suggestion on proposed Odisha Electricity Regulatory Commission (Renewable Consumption Obligation, Distributed Renewable Energy Sources and Renewable Energy Linked Concepts) Regulations, 2026 under Section 181 (3) of the Electricity Act.

The Commission has framed the draft Odisha Electricity Regulatory Commission (Renewable Consumption Obligation, Distributed Renewable Energy Sources and Renewable Energy Linked Concepts) Regulations, 2026 in accordance with Section 181 of the Electricity Act, 2003. The proposed Regulation is available in Commission's Website www.orierc.org.

Notice is hereby given under Section 181(3) of the Electricity Act, 2003 inviting suggestions and objections from the interested persons/ institutions/ associations/ consumers and other stakeholders. The objections and suggestions shall reach the undersigned **by 8th May, 2026**. After considering such suggestions/ objections, the Commission may bring about modification, if necessary, in the draft regulation for final publication in the official gazette.

By Order of the Commission

Sd/-
SECRETARY

Bhubaneswar

Date: 10th April, 2026

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NOTIFICATION

The _____, 2026

No. OERC/RA/RCO-DRES-43/2026/ - In exercise of powers conferred under Section 61(h), 86(1)(e) & Section 181 of the Electricity Act, 2003 (Act 36 of 2003) and all other powers enabling it on that behalf, the Odisha Electricity Regulatory Commission hereby makes the following Regulations, namely:

CHAPTER-I
GENERAL

1. SHORT TITLE AND COMMENCEMENT

(1) These Regulations shall be called "Odisha Electricity Regulatory Commission (Renewable Consumption Obligation, Distributed Renewable Energy Sources and Renewable Energy Linked Concepts) Regulations, 2026".

(2) These Regulations shall be applicable in the whole state of Odisha.

(3) These Regulations shall come into force from the date of its publication in the Official Gazette.

2. DEFINITIONS AND INTERPRETATION

In these Regulations, unless the context otherwise requires-

(a) **"Act"** means the Electricity Act, 2003 (36 of 2003) as amended from time to time;

(b) **"Agreement"** means an agreement entered into by the distribution licensee with the eligible consumers.

(c) **"Behind the Meter (BTM)"** means an arrangement in which the Distributed Renewable Energy System (DRES) is connected behind the Consumers' meter, operating in parallel with the distribution licensee's grid, and not opting for any other metering or billing arrangements options subject to other conditions mentioned in these Regulations.

(d) **"Bidirectional Meter"** means an energy meter which is capable of recording both import and export of electricity.

(e) **"Billing Cycle or Billing Period"** means the period for which regular electricity bills are prepared for different categories of consumers by the

distribution licensee, as specified by the Commission.

(f) **"Blockchain"** means digitally distributed, decentralized, public immutable ledger that exists across a network for recording transactions.

(g) **"Captive Generating Plant"** means a power plant set up by any person to generate electricity primarily for his own use and includes a power plant set up by any co-operative society or association of persons for generating electricity primarily for use of members of such co-operative society or association.

(h) **"Central Agency"** means the agency as may be designated by the Central Commission from time to time under the CERC REC Regulations, 2022;

(i) **"Central Commission"** means the Central Electricity Regulatory Commission referred to in Sub-section (1) of Section 76 of the Act;

(j) **"CERC REC Regulations, 2022"** means Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022 as amended from time to time.

(k) **"Commission"** means the Odisha Electricity Regulatory Commission referred to in sub-section (1) of the Section 82 of the Act;

(l) **"Contract Demand" or "Sanctioned Load"** means maximum demand in kW or kVA as the case may be, agreed to be supplied by the licensee/supplier and reflected in the agreement executed between the licensee and the consumer.

(m) **"Conventional Generating Plant"** means any power plant generating electricity by using sources other than Renewable Energy Sources mentioned in these Regulations;

(n) **"Designated Consumer" or "DC"** means electricity distribution license or open access consumers or captive users for which a target is notified under the Statutory Orders issued by the Government of India as per the Energy Conservation Act, 2001 as amended from time to time.

(o) **"Distributed Renewable Energy System (DRES)"** means an electricity generation system having installed capacity not exceeding 10 MW using a distributed renewable energy source with or without energy storage and connected to the transmission/distribution network at voltage level of 33 kV or below having an anti-islanding protection to prevent flow of energy into the grid when grid supply is not available.

(p) **"Distribution Licensee"** means a person granted license under Section 14 of the Act authorizing him to operate and maintain a distribution system and to supply electricity to the consumers in his area of supply, and includes a deemed licensee or as defined in the Act from time to time;

(q) **"Eligible Consumer(s)" or "Consumer(s)"** means a consumer of electricity in the area of supply of the distribution licenses, who uses or intends to use a DRES, installed at his premises or at any other location, depending on the metering mechanism, to meet all or part of his own electricity requirement.

(r) **"Energy Storage Obligation" or "ESO"** means the obligation of an obligated entity to source a portion of the energy from Energy Storage Systems established as standalone ESS or in combination with RE sources, which shall be calculated as a percentage of the total consumption of electricity and shall be treated as fulfilled only when at least 85% of the total energy stored in the ESS is from RE sources, on annual basis;

(s) **'Energy Storage System' or 'ESS'** means a device that stores the energy from variety of energy sources~~,~~ utilizing the methods and technologies like; solid state batteries, flow batteries, pumped storage, compressed air, fuel cells, hydrogen storage or any other technology to store various forms of energy, and to deliver the stored energy in the form of electricity to the grid or installation as and when needed;

(t) **'Feed-in Tariff' or 'FiT'** means the tariff determined by the Commission for the settlement/ purchase of energy injected to the grid by a prosumer under different metering mechanisms.

(u) **"Generation Meter"** means an energy meter installed to measure the electricity generated by the DRES.

(v) **"Group Net Metering" or "GNM"** means a mechanism whereby surplus energy generated/ injected from a DRES is exported to the grid and the exported energy is adjusted in more than one electricity service connection(s) of the same person in the same category of consumer(s) located within the same distribution licensee's area of supply.

(w) **"Gross Metering" or "GM"** means a mechanism whereby the total energy generated from DRES of a consumer and the total energy consumed by the consumer are accounted separately through appropriate metering arrangements and for the billing purpose, the total energy consumed by the consumer is accounted at the applicable retail tariff and total energy generated by the DRES is accounted for at feed-in-tariff as determined by the Commission.

(x) **"Hosting capacity"** means cumulative capacity of DRES allowed to be interconnected with the grid which shall not exceed the capacity as specified under these Regulations.

(y) **"Hybrid Sources"** means two or more Renewable Energy Sources as approved by MNRE used together to provide increased system efficiency as well as greater balance in energy supply.

(z) **"Hybrid Inverter"** is a bi-directional inverter capable of interfacing with both solar photovoltaic (PV) modules and an energy storage system, and designed to manage the flow of electricity between the renewable energy generating system, the battery storage, the consumer's load, and the distribution licensee's grid. It enables both grid-interactive and stand-alone operation, ensuring optimal utilization of renewable energy and maintaining system reliability.

(aa) **"Inter-connection point"** shall mean the interface point of the Renewable Energy plant with the network of transmission/distribution licensee as agreed by the Licensee.

(bb) **'kW**' means kilowatt and indicates the capacity of the DRES (AC capacity of a solar inverter is taken as the capacity of a solar generating system);

(cc) **'kWp'** means kilowatt peak (indicates the DC capacity of the solar PV panels);

(dd) **"Lead Consumer"** means a participating consumer who is also nominated by other participating consumers under the Virtual Net Metering arrangement, to act as their representative for all the correspondence and communication with the Distribution licensee;

(ee) **"MNRE"** means the Ministry of New and Renewable Energy, Government of India;

(ff) **"Net Billing" or "NB"** means a mechanism whereby a single bidirectional energy meter used for net-billing at the point of supply wherein the energy imported from the Grid and energy exported from DRES of a prosumer are valued at two different tariffs, where:

i. The monetary value of imported energy is based on the applicable retail tariff

ii. The monetary value of the exported renewable energy is based on the tariff as determined by the Commission.

iii. The monetary value of exported energy is deducted from the monetary value of the imported energy to arrive at the net amount to be billed or credited/carried over.

(gg) **"Net-Meter"** means a consumer meter which is a bi-directional energy meter for measuring the quanta of electricity flowing in either direction and shall provide the net quantum of electricity either consumed by the consumer or injected into the transmission/distribution system of the licensee in kWh; which shall be an integral part of the DRES.

(hh) **"Net Metering" or "NM"** means a mechanism whereby energy exported to the Grid from DRES of a prosumer is deducted from energy imported from the Grid in units (kWh) to arrive at the net imported or exported energy and the net energy import or export is billed or credited or carried over by the

distribution licensee by using a single bidirectional energy meter at the point of supply on the basis of the applicable tariff as determined by the Commission.

(ii) **"OERC Supply Code"** means the OERC Distribution (Conditions of Supply) Code, 2019 as amended from time to time.

(jj) **"Obligated Entity"** means the entity mandated under clause(e) of subsection (1) of section 86 of the Act to fulfill the Renewable Purchase Obligation and the entities identified under Regulation 3.1 of these Regulations;

(kk) **"Off-peak hours"** means the hours of the day other than the peak-hours as specified by the Commission in the Retail Supply Tariff Order for respective year.

(ll) **"Peak-hours"** means hours of the day specified as peak-hours by the Commission in the Retail Supply Tariff Order for respective year.

(mm) **"Peer-to-Peer Platform"** means an electronic platform provided by the Service Provider/ Distribution Licensee/ any other agency designated by the appropriate authority for this purpose, to sell energy generated through DRES.

(nn) "**Peer-to-Peer (P2P) Transaction"** means a transaction, based on interconnected platform that serves as a marketplace, wherein Consumers and Prosumers transact electricity through Block chain technology or any other technology;

(oo) **"Prosumer"** means a consumer of electricity in the area of supply of the Distribution Licensee, who uses a self-owned or RESCO owned DRES installed at the Consumer's premises/or other location, to offset part or all of the consumer's electricity requirements.

(pp) **"Pooling Sub-station"** means the sub-station at project site of the wind farm or Solar Photovoltaic Power plant, as the case may be, and shall constitute step-up transformer and associated switchgear, and the LV side of which, multiple (more than one) generating unit(s) (i.e. wind turbine generators or solar PV modules/ arrays/ inverter units) are connected.

(qq) **"Power Exchange"** means any licensed entity operating as an exchange for transaction of electricity in terms of the orders/ directions issued by the Central Commission;

(rr) **"Premises"** as defined under Act and subsequent amendments thereof.

(ss) **"Rated capacity of the Solar generation system"** means the capacity on the AC side of the Inverter in kW, forming part of the solar generation system;

(tt) **"Renewable Consumption Obligation" or "RCO"** means the requirement specified through these Regulations by the Commission under Clause (e) of sub-section (1) of Section 86 of the Act or by way of Orders from time to time for the obligated entity to purchase electricity for consumption from Renewable Energy Sources;

(uu) **"Renewable Energy"** means the grid quality electricity generated from renewable energy sources, including a combination of such sources.

(vv) **"Renewable Energy Certificate" or "REC"** means the certificate issued in accordance with CERC (Terms & Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022 as amended from time to time;

(ww) **"Renewable Energy Sources" or "RES"** means the sources as mentioned at Regulations 4 of these Regulations.

(xx) **"Renewable Energy Service Company" or "RESCO"** means an energy service company, which owns a DRES and supplies renewable energy to the consumer under different metering mechanisms provided under these Regulations.

(yy) **"Settlement Period"** means the period at the end of which settlement between the distribution licensee and the Consumer takes place, generally beginning from first of April in an English calendar year and ending with the thirty first of the March of the next year.

(zz) **"State Agency"** means the agency in the State of Odisha to be designated by the Commission to act as the agency for accreditation and recommending the Renewable Energy Projects for registration and to undertake functions under these regulations;

(aaa) **"State Designated Agency"** means the agency in the State of Odisha to be designated by the State Government of Odisha, to monitor the compliance of Renewable Consumption Obligation by the Designated Consumers as per the provisions under the Energy Conservation Act, 2001 as amended from time to time;

(bbb) **"Time Of Day Tariff" or "TOD Tariff"** means the Tariff determined by the Commission for some/all category of consumers specifying tariff for Peak Hours, Solar Hours and Normal hours, in the Retail Supply Tariff Order for each Financial Year.

(ccc) **"Vehicle to Grid" or "V2G"** means a set of technologies which facilitates export of electrical energy stored in batteries of electric vehicles into the grid during peak hours or as required by system conditions including non-availability of weather-dependent RE;

(ddd) **"Virtual Net Metering" or "VNM"** means an arrangement whereby the entire energy generated from a DRES is exported to the grid and the energy exported is adjusted in more than one electricity service connection(s) of the participating consumers belonging to the same consumer category located within the area of supply of the same distribution licensee.

(eee) **"Virtual Power Plants" or "VPP"** means the system by which small rooftop solar plant owners, storage service providers, other RE generators and demand response systems can aggregate their capacities through an aggregator and can be allowed to participate in trading in the power market or provide various ancillary services to get better value for the electricity;

(fff) **"Year"** or **"Financial year"** means the period beginning from first of April in an English calendar year and ending with the thirty first of the March of the next year.

2.2 Words and expressions used but not specifically defined in these Regulations shall carry the meaning as per the Act or the Regulations issued by the Central Commission or any other regulations issued by the Commission.

2.3 All proceedings under these Regulations shall be governed by the OERC (Conduct of Business) Regulations, 2004 as amended from time to time.

CHAPTER-II
Renewable Energy Sources and RCO

3. Scope of Regulations and Extent of their Application for RCO

3.1 In the matter of RCO, these Regulations shall apply to all the "Obligated Entities"/ "Designated Consumers (DCs)" in the State of Odisha, who are;

(a) Distribution licensee (or any other entity procuring power on its behalf),

(b) Industries who own Captive Generating Plant including co-generation plants based on conventional fossil fuel,

(c) Open Access consumers procuring electricity from conventional fossil fuel based generation.

3.2 In the matter of DRES, these Regulations shall apply to the consumer(s) having a DRES installed in the area of supply of the distribution licensee.

4. Renewable Energy Sources

4.1 For the purposes of these Regulations, energy generation from all the types of Renewable Energy ("RE") sources as recognised or approved by MNRE shall be

considered, which shall not be limited to the following:

(a) Non-fossil fuel (including bagasse) based Co-generation (both qualifying and non-qualifying Co-generation);
(b) Wind Energy;
(c) Biomass Power based on Rankine Cycle technology;
(d) Hydro Power;
(e) Waste to Energy based on technologies approved by MNRE;
(f) Solar Power;
(g) Hybrid RE based on RE technologies and sources approved by MNRE and the Commission;

5. Renewable Consumption Obligation

5.1 The DCs or Obligated Entity shall, during each year, purchase or generate and consume such quantum of electricity (in kWh) from renewable sources not less than the quantum of electricity (in kWh), worked out as per the Table 1 below;

Table-1

Sl. No.	**Year**	**Wind Energy**	**Hydro Energy**	**Distributed Renewable Energy (DRE)**	**Other Renewable Energy**	**Total Renewable Energy**
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	2024-25	0.67%	0.38%	1.50%	27.36%	**29.91%**
2.	2025-26	1.45%	1.22%	2.10%	28.24%	**33.01%**
3.	2026-27	1.97%	1.34%	2.70%	29.94%	**35.95%**
4.	2027-28	2.45%	1.42%	3.30%	31.64%	**38.81%**
5.	2028-29	2.95%	1.42%	3.90%	33.09%	**41.36%**
6.	2029-30	3.48%	1.33%	4.50%	34.02%	**43.33%**

5.2 The obligation under the Wind energy component shall be met by energy produced from Wind Power Projects commissioned after 31st March, 2024.

5.3 The obligations under the Hydro energy component shall be met by energy produced from Hydro Power Projects including Pump Storage Projects (PSPs) and Small Hydro Projects (SHPs), commissioned after 31st March, 2024:

Provided that the obligation under the Hydro energy component may also be met out of the free power being provided to the State or distribution licensee from such Projects:

Provided further that the obligation under the Hydro energy component may also be met from Hydro Power Projects located outside India, as approved by the Central Government, on a case- to-case basis.

5.4 The obligation under the DRE component shall be met from the energy generated from renewable energy projects that do not exceed 10 MW in size and shall include

solar installations under all configurations (net metering, gross metering, virtual net metering, group net metering, behind the meter installations and any other configuration under DRE) and Other renewable energy sources notified by the Central Government:

Provided that the compliance against Distributed Renewable Energy (DRE) obligation shall ordinarily be considered in terms of energy (kilowatt hour units):

Provided further that in case the Obligated Entity is unable to provide generation data against Distributed Renewable Energy installations, the reported capacity shall be converted into Distributed renewable energy generation in terms of energy by a multiplier of 4 units per kilowatt per day (kWh/kW/day).

5.5 The obligation under the Other renewable energy component may be met by electrical energy produced from any renewable energy project other than as specified above in **Regulations 5.2 to 5.4.** Other renewable energy shall include, but not limited to, electrical energy generated from:

i. Wind Power Projects;
ii. Hydro Power Projects including Pump Storage Projects (PSPs) and Small Hydro Projects (SHPs)and free power provided to the State, commissioned before 1st April, 2024; and
iii. co-firing of biomass pellets and charcoal produced from Municipal Solid Waste.
iv. By Purchase of green hydrogen or green ammonia for consumption as energy and not as feedstock.

Provided that the renewable energy (RE) used to meet the obligation shall be determined by the quantity of green hydrogen or green ammonia consumed & the electrical energy needed to produce one metric tonne of it and the norms in this regard as notified by the Central Commission or the Central Government as the case maybe, and as amended from time to time.

Provided further that, in case such norms for electrical energy required for the production of one metric tonne of green hydrogen are not notified on the date of notification of these Regulations, the procedure laid down by competent authority for RCO compliance by consumption of green hydrogen or green ammonia shall be adopted provisionally.

v. Energy Storage System as per Regulation 5.13 of these Regulations.

5.6 Obligations under Wind, Hydro, and Other renewable energy components are fungible (shortfalls in one may be met by surpluses from others), while Distributed Renewable Energy is non-fungible for its shortfall but its surplus may offset other components.

5.7 For all Obligated Entities/ Designated Consumers, the Renewable Consumption

Obligation shall exclude electricity consumed from Nuclear Power Sources.

5.8 Open Access consumers and Captive users shall meet the specified total Renewable Consumption obligation from any Renewable Energy Source.

5.9 The RCO of Obligated Entities/ Designated Consumers shall be as follows:

i. **Distribution licensee**: The RCO shall be calculated based on the electrical energy supplied to the consumers within the periphery of the Distribution Licensee. This supply shall not include the consumption of open access users from the sources other than the distribution licensee and the electricity generated and self- consumed by captive users.

ii. **Open Access Consumer**: RCO shall be calculated based on electrical energy consumption at the point of drawal from the grid from sources other than the Distribution Licensee's.

iii. **Captive user/ consumer**:

(a) RCO shall be calculated based on electricity generated and self-consumed from the CGP excluding the Auxiliary consumption. The obligation shall exclude electricity generated and self-consumed from waste heat recovery process using fossil-based sources, except for electricity generated from a Waste Heat Recovery Steam Generator in a captive Combined Cycle Gas-Based Generating Station. The obligations shall also exclude electricity generated and self-consumed through waste energy recovery, including from by-product gases, or other forms of residual energy sources associated with industrial processes.

(b) The obligation shall exclude,

(i) 50% of the electricity generated and self-consumed from fossil-fuel based co-generation plant; and

(ii) 50 % of the fossil fuel-based electricity consumed in Aluminum smelters.

Provided that in case, after meeting the RCO, the CGP has surplus renewable power from self-generation, surplus power can be sold to the Distribution Licensee or any entity procuring power on behalf of Distribution Licensee under the prevailing arrangements, which shall be accounted towards RCO Compliance of GRIDCO, or in the power exchange.

5.10 The applicable Transmission and Distribution (T&D) losses for conveyance of power from the point of purchase/ generation to the point of consumption in relation to Clause (i) and (ii) above shall be considered as part of consumption by the obligated entity while deciding the RCO and its fulfilment.

5.11 If the RCO for any of the year is not specified by the Commission, the RCO specified for the previous year shall be continued beyond the specified period till any revision is affected by the Commission in this regard.

5.12 In case of Hybrid Sources, the power procured from the hybrid project may be used for fulfillment of respective RCO in the proportion of rated capacity of such sources of power in the hybrid plant.

5.13 Further, renewable power stored in any form of Energy Storage System and subsequently discharged to the grid from such storage shall be treated as renewable energy.

6. Mechanism for RCO Compliance

6.1 The Obligated Entity(ies)/ Designated Consumer(s) may fulfil the specified Renewable Consumption Obligation through one or more of the following methods;

(i) Consumption of electricity from Renewable Sources directly or through Energy Storage System.

(ii) Purchase of or self-generated Renewable Energy Certificates (RECs) issued in accordance with CERC REC Regulations, 2022; including RECs acquired under Virtual Power Purchase Agreement.

(iii) The CGPs and Open Access Consumers may elect to purchase green energy either up to a certain percentage of its electricity consumption or its entire consumption to fulfill their RCO on requisition from the Distribution Licensee or any entity procuring power on behalf of the Distribution Licensee. Any requisition for green energy from above entity shall be for a minimum period of one year and the quantum shall be pre-specified. The Accounting of renewable energy supplied by Distribution Licensee or any entity purchasing power on its behalf shall be on monthly basis.

6.2 The green energy purchased from Distribution Licensee or any other entity procuring power on its behalf or from other Renewable Energy sources in excess of Renewable Consumption Obligation of Designated Consumer(s)/Obligated Entity shall be accounted towards RCO compliance of the Distribution Licensee;

6.3 The Obligated Entity/ Designated Consumer shall submit all the details of its consumption and necessary compliance along with supporting document of such compliance to the State Agency as per its laid down procedure.

6.4 The RCO compliance for multiple designated consumers under common control shall be considered on an aggregate basis, at the holding company level as defined in the Companies Act, 2013 (18 of 2013), or at the level of a Cooperative Society registered under the relevant Cooperative Societies Acts, as the case may be. The green energy purchased from Distribution Licensees or any other entity procuring power on its behalf or from other Renewable Energy sources in excess of RCO of the DCs/Obligated Entity shall be accounted towards RCO compliance of the Distribution Licensee/GRIDCO;

7. State Agency and its Functions

7.1 The Odisha State Load Despatch Centre, shall be the State Agency for the purpose of monitoring RCO compliance of Obligated Entities/ Designated Consumers.

7.2 The State Agency shall devise appropriate procedure with timeline for collection of information from Obligated Entities/Designated Consumers who shall furnish the required information in the format provided at Annexure-I to SLDC.

7.3 The State Agency may modify the format placed at Annexure-I for seeking information from Obligated Entities/ Designated Consumers with prior approval from the Commission.

7.4 The State Agency may develop an independent web portal for collecting required information in prescribed format at Annexure-I.

7.5 The State Agency shall submit quarterly / yearly status of RCO Compliance of Obligated Entities/Designated Consumers to the Commission.

7.6 The State Agency shall function in accordance with the directions issued by the Commission from time to time.

7.7 The State Agency shall act in accordance with the Regulations and provisions of the CERC REC Regulations, 2022 as amended from time to time.

8. Non-compliance of RCO & Penalty

8.1 In case of a non-compliance of this notification including but not limited to shortfall in meeting the Renewable Consumption Obligation, non-submission of required information, or submission of incorrect information to the State Agency, the State Agency shall intimate the Commission of such non-compliance and shall recommend the Commission to initiate action against such entity under Section 142 of the Act.

9. Repeal and Savings for matters related to RE Compliance

9.1 Save as otherwise provided in these regulations, the Odisha Electricity Regulatory Commission (Procurement of Energy from Renewable Sources and its Compliance) Regulations, 2021 and subsequent amendments shall stand repealed.

9.2 Notwithstanding such repeal, anything done or any action taken or purported to have been done or taken on any accreditation or registration or permission granted or any document or instrument executed or any direction given under the repealed regulations shall, in so far as it is not inconsistent with the provisions of these regulations, be deemed to have been done or taken under the corresponding provisions of these regulations.

CHAPTER-III
Grid Interactive Distributed Renewable Energy Sources

10. Introduction to Grid Interactive Distributed Renewable Energy Sources

10.1 Distributed Renewable Energy System (DRES) means an electricity generation system connected to the transmission/distribution network at voltage level of 33 kV and below, having installed generation capacity of 10 MW or below from a distributed renewable energy source with or without energy storage having an anti-islanding protection to prevent flow of energy into the grid when grid supply is not available.

10.2 The Commission shall publish Standard Operating Procedure (SoP) for Implementation of DRES under the different Metering Mechanisms mentioned in these Regulations and may amend the procedure as per requirement, from time to time.

11. Conditions related to Distributed Renewable Energy System

11.1 An Eligible Consumer who owns or intends to own/develop a DRES individually or with the RESCO, to off-set part or his entire load consumption shall enter into an agreement under any of the applicable/eligible metering mechanism as provided under these Regulations.

11.2 Eligible Consumer who owns/ would own a DRES under Net-Metering Mechanism through any kind of subsidy scheme provided by the State or Central Government from time to time shall not be eligible to switch to any other metering mechanism under these Regulations.

Provided when a DRES is installed under any scheme of the Central or State Government, it shall be done as per the guidelines issued under such scheme. The Commission may issue special order, if necessary, for implementation of such scheme.

11.3 The Eligible Consumer who owns/ would own a DRES of capacity 5 kW and above shall have to install hybrid inverter or GRID Forming Inverter and a Battery Energy Storage System (BESS) along with the DRES with minimum capacity as given in the Table below:

Sl. No.	DRES Capacity (kW)	Minimum BESS Capacity (kW) for 2 hrs (kWh)
1	More than 5 and upto 10	1
2	More than 10 and upto 30	2
3	More than 30 and upto 100	6
4	More than 100 and upto 500	20
5	More than 500 and upto 1000	100
6	More than 1000 and upto 3000	400
7	More than 3000 and upto 7000	1200
8	More than 7000 and upto 10000	2800

11.4 The BESS installed by prosumers shall be charged during solar hours and

preferably, discharge during peak hours.

11.5 The Consumer may own the DRES or may enter into a contract with the RESCO upto installed capacity of 500 kW on mutual commercial arrangements for the establishment of the DRES under different metering mechanisms covered under these Regulations.

Provided that in case of establishment of DRES by RESCO having installed capacity more than 500 kW, the RESCO shall become a consumer of the DISCOM.

Provided further that, RESCO shall enter into a direct agreement with the eligible consumer as regards to its payment. And shall submit a copy of this agreement to the DISCOM.

11.6 The Distribution Licensee may also be the RESCO with a separate direct agreement with the consumer undertaken specifically for this purpose and this business shall be treated as other business of the Distribution Licensee.

11.7 The Consumers who owns or intends to own a DRES shall install a Generation meter for recording the energy generated by the DRES and a Bi-directional meter/ Net-Meter to record the electricity injected into the grid and the energy consumed by the consumer from the grid.

11.8 When the DRES is located at any location other than the consumer's premises, the consumer shall be responsible for development of evacuation infrastructure upto the nearest grid system as agreed by the distribution licensee.

11.9 Consumers having pending arrears with the distribution licensee shall not be eligible to install DRES under these Regulations:

Provided that, where there is a dispute between the distribution licensee and the consumer, relating to any charge for electricity, such consumers shall be allowed to install DRES pending such resolution of dispute upon deposit of the disputed amount with the distribution licensee in accordance with Section 56 of the Act.

11.10 The consumer availing open access under clause (2) of Section 42 of the Act may also establish DRES in its premises under these regulations. In such case, priority for settlement/adjustment in credit should be done first for OA transactions followed by banked energy from in-situ DRES or as decided by the Commission.

12. Metering Mechanisms for DRES

The Eligible Consumer(s) who owns or intends to own a DRES shall enter into an agreement with the Distribution Licensee under any of the following Metering Mechanisms based on their eligibility and maximum installed capacity as mentioned in these Regulations;

i. Net metering
ii. Net Billing
iii. Gross Metering
iv. Group Net Metering
v. Virtual Net Metering
vi. Behind the Meter

13. Net Metering

13.1 In this mechanism, the consumer offsets his quantum of electricity consumption from the Distribution Licensee.

13.2 Domestic consumers, group housing, institutions run or managed by charitable organisations, government buildings including schools, buildings belonging to local authorities and agricultural consumers shall only be eligible to establish DRES under net metering mechanism.

13.3 The DRES in Net Metering mechanism must be located/installed in the consumer's premises and the minimum capacity of DRES shall be 1 kW & maximum capacity shall be 500 kW or the sanctioned load or the contract demand of the prosumer, whichever is lower.

Provided that DRES capacity of 5 kW and above shall be provide with hybrid inverter and BESS as per Cl 12.4.

13.4 Consumers can switch from existing Net Metering mechanism to Gross Metering or Net Billing or Behind-The-Meter mechanism maximum three times during life of the DRES. Further, such switch over can be allowed only once in a year.

14. Net Billing

14.1 In this mechanism, the consumer offsets the electricity purchase bill from the Distribution Licensee.

14.2 The consumers of all category shall be allowed to establish DRES under Net Billing mechanism.

14.3 The DRES in Net Billing mechanism must be located/installed in the consumer's premises and the minimum capacity of DRES shall be 1 kW & maximum capacity shall be 500 kW or the sanctioned load or the Contract Demand of the prosumer, whichever is lower.

14.4 The consumers under Net Billing mechanism can switch from existing Net Billing mechanism to Behind-The-Meter or Gross Metering mechanism maximum three times during the life of the DRES. Further, such switch over can be allowed only once in a year.

15. Gross Metering

15.1 In this mechanism the consumer offsets electricity purchase bill from the distribution licensee/ the consumer installs the DRES to sell the entire generation to the licensee at feed-in tariff as determined by the Commission, thereby offsetting his electricity bill and earning in return for the excess generation.

15.2 An applicant who is setting up a DRE plant in an area which is not within the premises of a consumer shall be allowed for Gross Metering by obtaining separate connectivity. In such scenario, a Generation Meter must be installed for recording the energy exported from the DRES and a Bi-directional meter at the point of supply.

15.3 Consumers of all categories shall be allowed to install DRES under Gross Metering

mechanism.

15.4 The minimum capacity of DRES that can be set up under Gross Metering mechanism shall be 1 kW, while the maximum capacity shall be 10 MW.

15.5 All eligible Consumer(s) can also switch from existing Gross Metering mechanism to Net-Billing (if eligible as per Net Billing conditions) or Behind-The-Meter mechanism maximum three times during life of the DRES. Further, such switch over can be allowed only once in a year.

15.6 In case the capacity of proposed DRES is higher than the sanctioned load or contract demand or the proposed DRES plant is set up in a separate premise, the capital expenditure on account of Service Line-cum-Development (SLD) and network augmentations, if required, shall have to be borne by the consumer.

16. Group Net Metering (GNM)

16.1 In this mechanism, the consumer offsets the quantum of electricity consumption of more than one electricity service connection of the same person and in the same consumer category located within the same area of supply of distribution licensee.

16.2 All Consumer(s) eligible for Net-Metering mechanisms (Regulation 13.1) shall be eligible to install DRES under Group Net Metering mechanism in the Consumer's premises at any one of his service connection locations.

16.3 The prosumer shall mention the priority list of participating service connections in the agreement to offset the respective consumption with the energy generated from the DRES.

16.4 The minimum size of DRES that can be set up under Group Net Metering mechanism shall be 5 kW, while the maximum capacity shall not exceed the combined sanctioned load or Contract Demand of all the participating service connections or 500 KW, whichever is lower.

16.5 The capital expenditure on account of Service Line cum Development (SLD) and network augmentations towards DRES shall be borne by the consumer.

17. Virtual Net Metering (VNM)

17.1 In this mechanism, the participating consumers from same consumer category, located within same area of supply of Distribution licensee, shall set up DRES to offset the quantum of their electricity consumption from the distribution licensee.

17.2 An applicant who is setting up a DRE plant in an area which is not within the premises of a consumer shall be allowed for Virtual Net Metering by obtaining separate connectivity. In such scenario, a Generation Meter must be installed for recording the energy exported from the DRES and a Bi-directional meter at the point of supply.

17.3 Consumers eligible for Net-Metering mechanisms (Regulation 13) shall be eligible to install DRES under Virtual Net Metering mechanism.

17.4 The minimum size of DRES that can be set up under Virtual Net metering mechanism shall be 5 kW, while the maximum capacity shall not exceed the combined sanctioned load or Contract Demand of all the participating consumers

or 500 kW whichever is lower.

17.5 The capital expenditure on account of Service Line cum Development (SLD) and network augmentations towards DRES shall be borne by the participating consumer.

18. Behind the Meter

18.1 In this mechanism, the DRES is installed within the Consumer's premises for self-consumption only and not to sell the electricity generated by the DRES to the distribution licensee.

18.2 Consumers under all Consumer categories are allowed to opt for behind the meter mechanism. The minimum capacity of DRES that can be set up behind the meter mechanism shall be 1 kW, while the maximum capacity shall not exceed the sanctioned load or Contract Demand of the consumer not exceeding 10 MW.

Provided that the consumer shall connect the behind the meter system only after prior intimation to the respective Distribution Licensee.

Provided that in case of establishment of DRES by RESCO, RESCO shall become the consumer of the DISCOM, if the installed capacity of DRE is more than 500 KW.

18.3 In cases where it is found that the system is connected to the consumer installation without prior intimation to the distribution licensee, the licensee may disconnect such system after serving a notice of 48 hours. The consumer may enter into a contract with the distribution licensee within this notice period with payment of one-time penalty of Rs. 1000/kW of installed DRES capacity to avoid disconnection of supply by the distribution licensee.

18.4 The Consumer shall install reverse power flow relay to ensure that no energy is injected into the grid from such DRES installed behind the Consumer's meter.

18.5 Consumers can also switch from existing Behind-The-Meter mechanism to, Net-Billing (if eligible as per Net Billing conditions) or Gross-Metering mechanism (if eligible as per Gross Metering conditions) maximum three times during life of the DRES. Further, such switch over can be allowed only once in a year.

19. Energy Accounting

19.1 The accounting of electricity exported/imported by the consumer shall become effective from the date of commissioning of the DRES as per the provisions under these Regulations.

19.2 The Distribution licensee shall undertake meter reading of Generation meter/ Net-Meter/ Bi-Directional Meter/ Consumer meter as per OERC Supply Code, 2019 as amended from time to time

19.3 The timeline of metering, billing and payment shall be as per OERC Distribution (Conditions of Supply) Code, 2019 as amended from time to time.

19.4 The Distribution Licensee, shall within three months from the date of notification of these Regulations, modify its existing billing infrastructure to facilitate the metering, energy accounting and billing arrangements as envisaged under these Regulations

19.5 In case of defective/failure/burnt condition of any meter, the Consumer shall replace the meter as per the regulations specified in the OERC Distribution (Conditions of Supply) Code, 2019 as amended from time to time.

19.6 The electricity generated by the DRES during the period in which the meter is defective shall be determined based on the provisions specified in the OERC Supply Code, 2019 as amended from time to time.

20. Accounting for Net Metering Mechanism

20.1 In case the electricity injected by the DRES exceeds the electricity consumed during the billing cycle, such excess injected electricity shall be carried forward to the next billing cycle as excess electricity and may be utilized in the following billing cycles but within the same settlement period.

20.2 In case the electricity supplied by the distribution licensee during any billing cycle exceeds the electricity injected in the grid by the DRES, the distribution licensee shall raise a bill for the net electricity consumption after considering any excess electricity carried forward from the previous billing cycle.

20.3 In case the prosumer is under the ambit of Time-of-Day (ToD) tariff, the following process shall be followed:

a. The incentive/surcharges under ToD tariff shall be applicable in accordance with the provisions of the effective Tariff Order.

b. Electricity consumption in peak hours and off-peak hours shall be first compensated with the electricity generation during the peak hours and off-peak hours respectively.

c. Any cumulative excess energy injected over and above the consumption during the peak hours and off-peak hours in a billing cycle shall be accounted as if the excess injection had occurred during off-peak hours.

d. This process will continue till all consumption in off-peak hours is set off against DRES generation during off-peak hours.

e. Any excess generation after setting off consumption in off-peak hours would be carried forward to the next billing cycle.

f. Same process would be followed to set off consumption in the subsequent billing cycle.

20.4 The excess electricity at the end of settlement period shall be settled by the distribution licensee at feed-in tariff for Net-Metering as determined by the Commission. This settled amount shall be credited to the Consumer's Bank Account through digital mode.

Provided further that at the beginning of each settlement period i.e., April, carried forward electricity shall be zero.

20.5 The injected electricity measured in kilowatt hour (kWh)/kVAh shall only be utilized to offset the consumption measured in kWh/kVAh and shall not be utilized to compensate any other fee and charges levied by the distribution licensee.

20.6 Regardless of availability of excess electricity with the prosumer during any billing

period, the prosumer will continue to pay all other charges such as fixed/demand charges, government levy etc.

20.7 For each billing cycle, the distribution licensee shall make the following information available on its bill to consumer:

a. DRES generation recorded in the generation meter.
b. Electricity injected by DRES in the grid in the billing cycle, including opening and closing balance.
c. Electricity supplied by the distribution licensee in the billing cycle, including opening and closing balance.
d. Net billed electricity, for which a payment is to be made by the prosumer, if any.
e. DRES generation used by the DISCOM for RCO compliance, if applicable.
f. Excess electricity carried forward from the previous billing period.
g. Excess electricity carried forward to the next billing period, if any.

21. Accounting for Net Billing Mechanism

21.1 The energy generated by the DRES shall be first used for self-consumption and surplus energy injected into the grid or drawn from the grid shall be billed as follows:

Energy Bill of consumer =

$$\textbf{Fixed Charges and other charges and levies} + [(E_{DL}\text{-}OA) \times T_{RST}] - (E_{RE} \times T_{FIT}) - \textbf{Billing Credit;}$$

Where:

a) Fixed Charges mean the Fixed/Demand Charges as applicable to the consumer category as per the applicable Retail Supply Tariff Order.
b) Other charges and levies mean any other charges such as duties, taxes, cess, etc. as applicable as per applicable RST order.
c) E_{DL} means the energy drawn from the Grid by the prosumer.
d) T_{RST} means the applicable retail supply tariff of the concerned consumer category as per the applicable Retail Supply Tariff Order of the Commission for the respective year.
e) E_{RE} means the energy injected into the Grid by the consumer.
f) T_{FIT} means the feed-in-tariff for Net-Billing as may be determined by Commission.
g) Billing Credit is credit available from previous months
h) OA means the quantum of energy imported by the consumer through Open Access.

Provided that if ToD tariff is applicable to the Eligible Consumer under Net Billing mechanism, $((E_{DL}\text{-}OA) \times T_{RST})$ in the above equation shall be the monetary value of energy in accordance with the ToD tariff approved in the effective Tariff Order of the Commission.

21.2 The monetary value of the exported energy shall be deducted from the monetary

value of imported energy to arrive at the net amount to be billed to the consumer in Net Billing mechanism.

21.3 If the cumulative credit amount exceeds the debit amount during any billing cycle, the net credit amount is carried over to the next billing cycle. At the end of the settlement period, the net credit balance shall be paid by the distribution licensee to the eligible consumer.

21.4 For each billing cycle, the distribution licensee shall make the following information available on its bill to the Eligible Consumer:

a. Quantum of DRES generation recorded in the Generation Meter in the billing period;
b. Quantum of electricity units consumed by the Consumer in the billing cycle, including opening and closing balance;
c. Monetary value of DRES generation and energy consumption from Distribution Licensee;
d. Energy Bill of the consumer as per Regulation ;
e. Credit amount, if any, carried forward or settled in the billing cycle;
f. Renewable Energy generation units used by the Distribution Licensee for RCO compliance.

22. Accounting for Gross Metering Mechanism

22.1 Gross metering is permitted for prosumer who opts to sell all energy generated by DRES to the distribution licensee by injecting the entire generation into the distribution grid.

22.2 The distribution licensee shall purchase entire energy generated from the DRES system at the feed-in tariff for Gross Metering decided by the Commission for different capacities of the DRES. The energy supplied by the distribution licensee shall be billed as per effective Retail Supply Tariff (and ToD tariff if applicable) for respective category of consumers.

22.3 The distribution licensee shall prepare a net bill comprising of the amount payable by the distribution licensee as per Regulations 14.3.2 above and amount payable by the consumer as per Regulations 14.3.3 above for each billing cycle:

Provided that if the net bill amount for a billing cycle is payable by the consumer, then the same shall be paid by the consumer within the due date of the bill as per OERC Supply Code, 2019 as amended from time to time:

Provided further that if net bill amount for a billing cycle is payable by the distribution licensee, then the same shall be carried over to the next billing cycle.

22.4 At the end of the settlement period, the net credit balance shall be paid by the distribution licensee to the eligible consumer at feed-in-tariff determined by the Commission.

22.5 For DRES under gross metering arrangement and supplying power during peak period using energy storage systems, the feed-in tariff applicable for the peak hours shall be 125% of the feed-in tariff decided by the Commission for Gross Metering mechanism.

22.6 For each billing cycle, the distribution licensee shall make the following

information available on its bill to the Eligible Consumer:

a. Quantum of DRES generation recorded in the Generation Meter in the billing cycle,
b. Quantum of electricity units consumed by the Consumer in the billing cycle, including opening and closing balance;
c. Credited amount towards payment of energy supplied to the distribution licensee, if any, in the billing period, showing opening and closing balance;
d. Renewable Energy generation units used by the Distribution Licensee for RCO compliance.

23. Accounting for Group Net Metering

23.1 The service connection where DRES is located, shall consume at least 20% of total energy generated by DRES. The equivalent units which are not consumed (out of 20% of generated RE power), at source connections, shall be considered as lapsed energy.

23.2 The energy generated from DRES shall be credited in the electricity bill of each participating connection(s) of the consumer, for each billing cycle, as per the priority indicated in the connection agreement with the distribution licensee. The sequence of priority for adjustment shall be deemed to begin with the service connection where the DRES is located.

23.3 Where the export of units during any billing cycle exceeds the import of units at the connection where DRES is located, such surplus units injected into the gid shall be adjusted against the energy consumed in the monthly bill of service connection(s) in a sequence indicated in the priority list provided by the consumer. The sequence of priority for adjustment shall be deemed to have begun with the service connection where the DRES is located.

23.4 The priority list for adjustment of the balance surplus energy against other electricity connection(s) as well as the capacity share of such connections may be revised by the Consumer once at the beginning of every financial year with an advance notice of three months.

23.5 The electricity consumption during peak hours and off-peak hours shall be first compensated with the electricity generation in the peak hours and off-peak hours respectively in the same billing cycle of consumer where DRES is located and any surplus units injected shall be adjusted against the energy consumed during the billing cycle of the participating service connection(s) in the sequence indicated in the priority list provided by the consumer, as if the surplus generation/ Energy Credits have occurred during the off-peak hours for ToD consumers and normal hours for non-ToD consumer(s).

23.6 The excess electricity (the unadjusted net credit units of electricity) at the end of settlement period shall be considered as units purchased by the Distribution licensee at feed-in-tariff for Net Metering as determined by the Commission. This settled amount shall be credited to the Consumer’s Bank Account through digital mode.

Provided that, at the beginning of each Settlement Period, the cumulative quantum of injected electricity carried forward will be re-set to zero.

23.7 Regardless of availability of excess electricity with the prosumer during any billing period, the prosumer will continue to pay all other charges such as fixed/demand charges, government levy etc.

24. Accounting for Virtual Net Metering (VNM)

24.1 For every VNM arrangement established as per these Regulations:

a. There shall be a lead consumer, who himself is a participating consumer and is nominated by other participating consumers under the Virtual Net Metering system, for making all the correspondences on its behalf with the Distribution Licensee.

b. The lead consumer shall be the signatory to the Connectivity Agreement on behalf of the participating consumers;

c. The lead consumer shall act as a Nodal person for all the correspondences with the Distribution Licensee;

d. The lead consumer has to communicate, in writing, any change regarding the Lead consumer with the approval from all the participating consumers and the connectivity agreement shall be assigned to the new lead consumer;

24.2 The energy generated from the DRES shall be credited in the monthly electricity bill of each participating consumer(s) as per the ratio of procurement from DRES indicated under the agreement/MoU entered by the Consumer(s) and submitted to the distribution licensee.

24.3 The Consumer(s) shall have the option to change the share of credit of electricity generated from the DRES to each participating consumers by submitting a fresh agreement/MoU, subject to ratio of procurement from DRES indicated under the agreement/MoU entered by the consumer(s) once at the beginning of the financial year with an advance notice of three months.

24.4 Where the service connection of any participating consumer(s) is disconnected due to any reason under any law for the time being in force, the unadjusted units/remaining credits of that consumer shall be adjusted/paid as per the same ratio among rest of the participating consumers at the end of settlement period.

24.5 The electricity consumption during peak hours and off-peak hours shall be first compensated with the electricity generation during peak-hours and off-peak hours respectively in the same billing cycle of the participating consumer(s). Any surplus generation over consumption during the peak hours and off-peak hours in a billing cycle shall be accounted as if the surplus generation/ Energy Credits occurred during the off-peak hours.

24.6 Where the units credited during any billing cycle of any participating Consumer exceeds the import of units by that consumer, such surplus credited units shall be carried forward in the next billing cycle as energy credits for adjustment against

the energy consumed in the subsequent billing cycles within the settlement period of each participating Consumer(s).

24.7 The unadjusted net credited units of electricity as at the end of the settlement period shall be considered as units purchased by the Distribution Licensee/at feed-in-tariff for Net Metering as determined by the Commission.

Provided that, at the beginning of each Settlement Period, the cumulative quantum of injected electricity carried forward will be re-set to zero.

24.8 Regardless of availability of excess electricity with the prosumers during any billing period, the prosumers will continue to pay all other charges such as fixed/demand charges, government levy etc.

25. Accounting for Behind the Meter

25.1 The DRES connected behind the Consumer's meter, operating in parallel with the Distribution Licensee's grid, shall be allowed only after prior intimation to the respective distribution licensee.

25.2 Any quantum of energy injected by such DRES connected behind the Consumer's meter shall be considered as inadvertent injection and shall neither be paid for nor settled by the distribution licensee.

Provided that penalty shall be levied on such inadvertent injection as determined by the Commission on an application filed by the Distribution Licensee regarding such inadvertent injection.

26. Applicability of Charges

26.1 The quantum of electricity generated from DRES (Self owned/RESCO owned) under Net Metering, Net Billing, Gross Metering and Behind the Meter arrangements, if installed on Eligible Consumer's premises shall be exempted from banking charges, transmission & wheeling charges, cross subsidy surcharge, and additional surcharge.

26.2 The applicable charges for Group Net Metering are as follows;

a. If the DRES and other participating service connections are connected to the existing Distribution Sub-station / feeder, no charges shall be applicable.

b. If the other participating service connections and the DRES are not connected to the same DSS/feeder, all charges along with applicable losses in accordance with OERC (Promotion of Renewable Energy Green Energy Open Access) Regulations, 2023/OERC (Terms and Conditions for Intra-state Open Access) Regulations, 2020 as amended from time to time shall be applicable.

26.3 In case of Virtual Net Metering, if DRES and participating consumers are connected to the existing Distribution Sub-station/PSS, no charges shall be applicable. Otherwise, all charges along with applicable losses in accordance with OERC (Promotion of Renewable Energy Green Energy Open Access) Regulations, 2023 /

OERC (Terms and Conditions for Intra-state Open Access) Regulations, 2020 as amended from time to time shall be applicable.

26.4 The Commission may stipulate from time to time the "Parallel Operation Charges or Grid Support Charges" to be levied on the energy generated by DRES under Virtual Net Metering, Group Net Metering and Behind the Meter mechanisms. No Grid Support Charges shall be levied on Net Metering, Net Billing and Gross Metering Consumer.

27. Hosting Capacity

27.1 The cumulative capacity of the DRES allowed to be interconnected with the distribution network/system shall not exceed the rated capacity of feeder/Distribution Transformer.

27.2 The cumulative capacity of the DRES allowed to be interconnected with the distribution transformer shall not exceed 90% of its capacity and the DRE system on each phase of the transformer shall not exceed 30% of the capacity of the transformer:

Provided that in the case of a single-phase consumer seeking connectivity to a phase which has exceeded or likely to exceed the threshold of 30% capacity in that phase, the licensee at its cost shall provide connectivity to another phase, if surplus capacity is available in any of the other phases.

28. Technical & Safety standards for Interconnection of DRES with the grid

28.1 The Eligible Consumer shall be responsible for the safe operation, maintenance and rectification of defect in the DRES and storage system, if any, up to the inter-connection point, beyond which such responsibility, shall be that of the Distribution Licensee.

28.2 The Distribution Licensee shall have the right to disconnect the DRES and storage system, if any, from its network at any time in the event of any threat or damage from such DRES to its distribution system to prevent any accident or damage, without any notice. When DRES is disconnected, the distribution licensee shall, within 24 hours of such disconnection, call upon the prosumer to rectify the defect and on such rectification the licensee shall restore the connection to the DRES immediately.

28.3 The DRES and storage system, if any, must have appropriate protection for isolating the DRES from the network of the Distribution Licensee, with an automatic as well as manual isolation switch, to prevent any feeding into the grid in case of failure of supply or grid.

28.4 The inverter used in association with DRES, should be a sine wave inverter and the consumer shall have the option to install either Grid tied inverters or Grid following Inverters or hybrid inverters/Grid forming inverter (preferred). Harmonic standards

shall be as per IEEE 519. The inverter should also comply to the mandatory standards stated by MNRE: IS 16221 (Part 2).2015/IEC 62109-2.2011 Safety of Power Converters for use in Photovoltaic Power Systems Part 2 (Particular Requirements for Inverters) and IS 16169.2019/IEC 62116.2014 Test Procedure of Islanding Prevention Measures for Utility – Interconnected Photovoltaic Inverters.

28.5 The inverter shall have the features of filtering out harmonics and other distortions before injecting the energy into the system of the Distribution Licensee and the Total Voltage Harmonic Distortion (THD) shall be within the limits specified in the Indian Electricity Grid Code (IEGC)/IEEE technical standards.

28.6 Inverter communication devices/dongles/data loggers having Machine-to-Machine (M2M) SIM communication protocol can also be relied upon for real-time measurement and transmission of generation data in lieu of generation meter."

28.7 The interconnection of the DRES with the network of the distribution licensee shall be as per the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023 and amendments thereof, if any.

28.8 The DRES must comply with the applicable provisions of Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and amendments thereof and shall also comply to any standards/procedures issued by the appropriate authority with regards to the operation, safety and other standards of the DRES.

29. Commissioning of the DRES

29.1 The DRES shall comply with the relevant standards and guidelines specified by the MNRE / BIS / CEA / Commission from time to time. The inverters used should meet the necessary quality requirements before putting into service. The protection logics should be tested before commissioning of the plant. The installation shall meet all safety standards and safety certificates for the installations should be obtained from the appropriate authorities.

30. RCO from DRES

30.1 If the prosumer is an Obligated Entity/ Designated Consumer, the quantum of energy consumed by such prosumer from its DRES, shall be considered towards RCO compliance of the Obligated Entity/ Designated Consumer.

30.2 The quantum of renewable energy injected to the grid from DRES owned by Designated consumer (DC) or Obligated Entity, for which the Distribution Licensee has paid to the consumer, such quantum of power will be considered towards meeting RCO of GRIDCO.

30.3 The energy generated from DRES by consumers, who are not DC/Obligated Entities under these Regulations, shall be considered for RCO compliance of GRIDCO.

CHAPTER-IV
RELATED MATTERS OF DRES/ RES

31. Connectivity of RES/ DRES with the Grid

31.1 Any person generating electricity from Renewable Energy Sources, irrespective of installed capacity, shall have option for Open Access through any Licensee's transmission system and/or distribution system, as the case may be in accordance with OERC (Promotion of Renewable Energy Green Energy Open Access) Regulations, 2023/OERC (Terms and Conditions for Intra-state Open Access) Regulations, 2020 as amended from time to time.

31.2 On an application from such person, the transmission licensee or distribution licensee shall provide appropriate interconnection facilities before Commercial Operation Date of the Renewable Energy Project or commissioning of the DRES.

31.3 Such interconnection shall follow the grid connectivity Standards as specified in the Central Electricity Authority (Technical Standards for Connectivity of the Grid) Regulations, 2007 as amended from time to time or Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013 as amended from time to time or the State Electricity Grid Code as the case may be.

31.4 At LT / HT level, the licensees shall be responsible for development of evacuation infrastructure, if the Renewable Energy Source is within 300 meters of the existing LT/HT system and if the said distance is beyond 300 meters, the developer/generating company shall develop evacuation infrastructure from generating facility up to the nearest transmission/distribution system as agreed by the licensee.

31.5 At EHT level, the developer /generating company shall develop evacuation infrastructure from generating facility up to the nearest transmission substation along with necessary bay at the Grid Sub-Station.

31.6 Communication system/ data transfer, if required by SLDC, between grid sub-station and generating station shall be developed by the developer/entity at its own cost. Developers of Renewable Energy Sources shall abide by all applicable Codes, Rules, Regulations, etc. in regard to operational and commercial practices.

31.7 Wherever Renewable Energy Sources of capacity greater than **100 kW** have already been connected to the State Grid at a voltage level lower than the voltage level specified in these Regulations and wherever such State Grid connection causes any bottleneck in capacity addition or there is in evacuation of power generation or low voltage during peak hours or frequent outage of line or sufficient redundancy, such grid connection shall be converted into suitable voltage level and cost for such conversion shall be borne by the developer/owner of that RE source.

32. Metering Infrastructure

32.1 The cost of meters, cost of connectivity and all other related cost for setting up the meters etc. have to be borne by the eligible consumers under guidance of the concerned distribution licensee. Either consumer or distribution licensee shall

procure the meter. The distribution licensee shall test and install the same in line with the provisions of the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time / OERC Supply Code as amended from time to time.

32.2 All the meters installed at the RES/DRES shall comply with the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 and subsequent amendments thereof.

32.3 All the meters shall have Advanced Metering Infrastructure (AMI) facility with communication port having RS 485 (or higher) standard.

32.4 The meters at the inter connection point of the RES or DRES under the different Metering mechanisms as mentioned under these regulations shall be;

a. Special Energy Meters (SEM) meters for RES/ DRES having capacity of 1 MW and above;
b. Smart meters for DRES having capacity below 1 MW;

Provided that, the consumers already having ABT compliant meter/ Smart meter as per above requirement corresponding to the capacity of DRES, shall not be required to install separate Net meter:

Provided further that the existing consumers having DRES with meters inconsistent with this Regulation, shall be required to install proper meter within 3 months from the date of notification of these Regulations. The distribution licensee shall intimate such consumers for taking necessary action within 15 days from the date of notification of these Regulations.

32.5 If the eligible consumer is under the ambit of Time of Day (ToD) tariff, both generation and bi-directional meters shall be capable of recording block-wise ToD consumption/generation.

33. Subsidies

33.1 The eligible consumers are entitled to avail of the applicable subsidies of MNRE as well as State Government as per their notifications/guidelines issued from time to time.

33.2 The Commission shall determine feed-in tariff for DRES under different metering mechanisms taking into account the subsidy provided by the MNRE or State Government and their installed capacity.

34. Eligibility to Participate under Renewable Energy Certificate (REC) Mechanism

34.1 The issuance of Renewable Energy Certificate shall be as per the eligibility criteria specified under CERC (Terms & Conditions for RECs for Renewable Energy Generation) Regulations, 2022 and subsequent amendments thereof, if any.

CHAPTER-V
NEW CONCEPTS LINKED TO RE

35. Virtual Power Plant (VPP)

35.1 VPP is a cluster of different type of Distributed Energy Resources including storage system aggregated through an aggregator to operate as a unique power plant. RTS plant owners, electric vehicles owners, storage service providers and other RE generators and Demand Responses system can aggregate through an aggregator. The aggregator can be allowed to participate in power market for trading and to provide various ancillary services.

35.2 The VPP registered with the Distribution Licensee shall be allowed to provide services such as energy supply, frequency regulation, and demand response, subject to the conditions specified by the Commission.

35.3 The VPP Operator shall enter into a Virtual Power Plant Participation Agreement with the Distribution Licensee, specifying the terms and conditions for providing services, revenue sharing and regulatory compliance as approved by the Commission.

35.4 The Distribution Licensee shall ensure that real-time data exchange and monitoring systems are in place to track VPP operations, ensuring grid stability and reliability.

35.5 The Consumers or prosumers participating in a VPP shall comply with the technical requirements specified in these Regulations relating to DRES. Connectivity shall be subject to network capacity and the system stability of the electricity distribution network.

35.6 The Commission may specify a detailed procedure for the implementation of Virtual Power Plants, energy accounting and settlement, as and when a VPP operator or a Distribution Licensee approaches the Commission for such implementation on pilot basis.

36. Peer to Peer trading (P2P)

36.1 Peer to Peer or P2P energy trading is to encourage small embedded RE generator (upto few KW capacity) or prosumer within the area of operation of Distribution Licensee to transact/trade surplus RE power to an eligible consumer of the Distribution Licensee through an online peer to peer platform using block chain or any other technology in a secured & reliable manner as approved by the Commission. The capacity of the participating DRES for P2P trading shall be approved by the Commission from time to time.

36.2 The P2P energy trading platform shall be operated by an authorized service provider or Distribution Licensee and must be compliant with the technical and operational requirements as specified in these Regulations.

36.3 The service provider shall create awareness and train P2P participants and distribution licensee regarding functioning of the P2P platform.

36.4 Prosumer and Consumer interested to sell surplus Renewable Energy or buy through P2P transactions must register with the approved service provider who provides the electronic platform for transaction of electricity through Blockchain or any other technology complying all technical and Regulatory requirement. The distribution licensee shall facilitate the participants for seamless P2P transactions.

36.5 The P2P service provider or the Distribution licensee, with the prior approval of the Commission, shall design, develop and implement pilot projects for P2P transactions and share results/findings with the Commission.

36.6 Based on a proposal of P2P service provider or a Distribution Licensee, the Commission may specify a detailed procedure for the implementation of pilot P2P transaction including the following:

(i) Roles and responsibilities of P2P participants, Service Providers and Distribution Licensees;

(ii) Metering, energy accounting and settlement;

(iii) Transaction charge/fee to be charged by service provider and DISCOM for facilitating P2P energy transaction on P2P platform.

(iv) Transaction price mutually agreed between prosumers and consumers for energy transacted on P2P platform.

37. Vehicle to Grid (V2G)

37.1 Vehicle to Grid or V2G integration is the framework for the bidirectional flow of electricity between the electric grid and EV batteries, ensuring efficient utilization of energy storage for grid stability, and demand-side management.

37.2 Vehicle to Grid or V2G technologies would facilitate export of electrical energy stored in batteries of electric vehicle into the grid during the peak hours or as required by system conditions including non-availability of weather-dependent RE. The prime objective is to reduce power purchase cost during peak hours, create new revenue stream for EV owners and enable Virtual Power Plant (VPP) creation using aggregated EV fleets.

37.3 EV owners and fleet operators with V2G enabled vehicle and charging infrastructure providers, aggregator etc. shall be eligible to participate in V2G framework subject to conditions as outlined by the Commission.

37.4 Distribution Licensees can participate in Vehicle-to-Grid (V2G) integration within the State.

37.5 EV owner shall have the right to export stored electricity in the battery of EV to the grid through authorized V2G-enabled charging stations/installations, subject to the terms and conditions specified in these Regulations.

37.6 Distribution Licensees shall facilitate the seamless integration of V2G-enabled EVs into the grid, subject to the following conditions:

(i) Smart metering infrastructure shall be deployed to measure bidirectional energy flow and ensure accurate settlement;

(ii) Comply with Central Electricity Authority (CEA) Technical Standards for grid connectivity;

(iii) Comply with Guidelines issued by Ministry of Power for Installation and Operation of Electric Vehicle Charging Infrastructure from time to time;

(iv) Comply with Indian Electricity Grid Code, 2023;

(v) Comply with the State Grid Code and OERC Supply Code as amended from time to time.

37.7 Distribution licensees shall implement protocols for monitoring V2G operations, to ensure grid stability.

37.8 A special Time-of-Use (ToU) tariff may be introduced by the Commission to encourage V2G participation, offering incentives for energy export during peak demand periods through Special Order from time to time. Dynamic pricing mechanisms shall be explored to compensate EV owners based on real-time grid conditions.

37.9 EVs shall be allowed to participate in ancillary services such as frequency regulation, voltage support, and peak sharing. V2G systems may be integrated with blockchain-based Peer-to-Peer (P2P) energy trading platforms, allowing EV owners to trade energy with other consumers under a regulatory sandbox framework.

37.10 A detailed procedure shall be framed by the Commission for implementation of V2G participation based on the response of stakeholders to cover the roles and responsibilities of stakeholders (EV owners/fleet operator, charging infrastructure providers, Distribution Licensee, SLDC etc.), registration, technical requirement, forecasting, scheduling, real-time operation monitoring & reporting, tariff framework for V2G services, billing & payment mechanism and settlement principles, exit from V2G program etc.

38. Agrivoltaics

38.1 The simultaneous use of land for both agriculture and photovoltaic (PV) power generation may be an attractive option for farmers and solar developers.

38.2 Arid and semi-arid regions may provide conditions that enable maximum synergy between agriculture and energy generation.

38.3 The Commission may determine location specific tariff for such Agrivoltaics project instead of single ceiling tariff across the State.

38.4 Potential business models for deploying Agrivoltaics are:

(a) Agrivoltaics jointly owned by farmer and developer

(b) Agrivoltaics solely owned by either the farmer or the developer

(c) Agrivoltaics where the developer is the primary promoter and farmer is a partner.

38.5 A detailed procedure shall be framed by the Commission for implementation of Agrivoltaic project based on the response of stakeholders (farmer/ developer) for execution of Agrivoltaic project on pilot basis.

39. Inconsistency with other Regulations of the Commission

Notwithstanding anything contained in other Regulations of the Commission, this Regulation shall have over-riding effect. Any action already taken before the effective date of these Regulations under any other Regulation(s) of the Commission shall remain valid till the date of Notification of these Regulations.

40. Issue of Orders and practice directions

Subject to the provisions of the Act and these Regulations, the Commission may, from time to time, either on Suo Motu basis or on a Petition filed by the applicant, issue such directions and orders, for effective implementation of these Regulations.

41. Power to remove difficulties

If any difficulty arises in giving effect to any of the provisions of these Regulations, the Commission may, by general or special Order, make such provision not inconsistent with the provisions of the Act or provisions of other Regulations specified by the Commission, as may appear to be necessary for removing the difficulty in giving effect to the objectives of these Regulations.

42. Power To Relax

The Commission, for reasons to be recorded in writing, may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

43. Power To Amend

The Commission, for reasons to be recorded in writing, may from time to time vary, alter or modify any of the provisions of these Regulations through amendment(s).

44. Interpretation

If a question arises relating to the interpretation of any provision of these Regulations, the decision of the Commission shall be final.

45. Inherent Power of the Commission

Nothing contained in these Regulations shall limit or otherwise affect the inherent powers of the Commission from adopting a procedure, which is at variance with any of the provisions of these Regulations, if the Commission, in view of special circumstances of the matter or class of matters and for the reasons to be recorded in writing, deems it necessary or expedient to depart from the procedure specified in these Regulations.

By Order of the Commission

SECRETARY

ANNEXURE-I

For Distribution Licensees (Form-1)

Wind RCO Compliance Statement									
NAME of the Obligated Entity/ Designated Consumer:									
Financial Year	Actual Energy Consumption During the Year	WCO Target for Financial Year		Wind Energy Consumed*	Excess Other RCO adjusted as per Regulation 5.6	Purchase of REC** if in furture allowed to meet Wind energy Obligation	Total (C+D+E)	Deficit/ (Surplus) [1-2]	Whether Targets Fulfilled
	(A)	(B)	[1=A*B]	(C)	(D)	(E)	[2]	[3]	Yes/No
Month	(MU)	(%)	(MU)	(MU)	(MU)	(MU)	(MU)	(MU)	

For Distribution Licensees (Form-2)

Hydro RCO Compliance Statement										
NAME of the Obligated Entity/ Designated Consumer:										
Financial Year	Actual Energy Consumption During the Year	HCO Target for Financial Year		Particulars	Hydro Energy Consumed*	Excess Other RPO adjusted as per Regulation 5.6	Purchase of REC** if in furture allowed to meet Hydro energy obligation	Total (C+D+E)	Deficit/ (Surplus) [1-2]	Whether Targets Fulfilled
FY	(A)	(B)	[1=A*B]		(C)	(D)	(E)	[2]	[3]	Yes/No
	(MU)	(%)	(MU)		(MU)	(MU)	(MU)	(MU)	(MU)	

For Distribution Licensees (Form-3)

Distributed Renewable Energy RCO Compliance Statement							
NAME of the Obligated Entity/ Designated Consumer:							
Financial Year	Actual Energy Consumption During the Year	Distributed Renewable Energy Target for Financial Year		Particulars	Energy Consumed from DRE Sources*	Deficit/ (Surplus) (1-2)	Whether Targets Fulfilled
	(A)	(B)	[1=A*B*10^6]		(C)	[2]	Yes/No
Month	MU	(%)	kWh		kWh	kWh	

For Distribution Licensees (Form-4)

Other RCO Compliance Statement												
NAME of the Obligated Entity/ Designated Consumer:												
Financial Year	Actual Energy Consumption During the Year	Other RCO Target for Financial Year		Particulars	Excess of Wind Energy Obligation and Hydro Energy Obligation to be adjusted as per Regulation 5.6	Solar	Wind	Hydro	Other (G-DAM)	Total (C+D+E+F)	Deficit/ (Surplus) [1-2]	Whether Targets Fulfilled
	(A)	(B)	[1=A*B]			(C)	(D)	(E)	(F)	[2]	[3]	Yes/No
Month	(MU)	(%)	(MU)			(MU)	(MU)	(MU)	(MU)	(MU)	(MU)	

For Open Access Consumers/ Industries having CGP (Form-A)

RCO Compliance Statement									
NAME of the Obligated Entity/ Designated Consumer:									
Financial Year	**Actual Energy Consumption During the Year**	**RCO Target for Financial Year**		**Particulars**	**Renewable Energy Consumed**	**Purchase of REC**	**Total (C+D)**	**Deficit/ (Surplus) [1-2]**	**Whether Targets Fulfilled**
	(A)	**(B)**	**[1=A*B]**		**(C)**	**(D)**	**[2]**	**[3]**	**Yes/No**
(Months)	**(MU)**	**(%)**	**(MU)**		**(MU)**	**(MU)**	**(MU)**	**(MU)**	