MODEL REGULATIONS

FOR

GRID INTERACTIVE DISTRIBUTED RENEWABLE ENERGY SOURCES 2025

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Forum of Regulators

MODEL REGULATIONS FOR GRID INTERACTIVE DISTRIBUTED RENEWABLE ENERGY SOURCES

Model Regulations for Grid Interactive Distributed Renewable Energy Sources

Dated: DD.MM.2025

No. XX/XX/2025

In exercise of the powers conferred under sections 42, 61, 66, 86(1)(e) and 181 of the Electricity Act, 2003 (Act 36 of 2003) and all other powers enabling it in this behalf, and after previous publications, the ……. (Name of State) Electricity Regulatory Commission hereby makes the following Regulations for the grid interactive distributed renewable energy sources:

1. Short title and commencement

1.1. These Regulations may be called the ……. (Name of State) Electricity Regulatory Commission (Grid Interactive Distributed Renewable Energy Sources) Regulations, XXXX.

1.2. These Regulations may come into force from the date of their notification in the Official Gazette.

1.3. These Regulations shall extend to the whole of the State of ……

2. Definitions

2.1. In these Regulations, unless the context otherwise requires,

a) **"Act"** means Electricity Act, 2003 (36 of 2003) and subsequent amendments thereof.

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

c) **"Behind the Meter" or "BTM"** means an arrangement in which the Distributed Renewable Energy System is connected behind the Consumers' meter, operating in parallel with the distribution licensee's grid, and not opting for any other metering or billing arrangement options and 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) **"Commission"** means the ……..…….. (Name of State) Electricity Regulatory Commission constituted under the Act.

g) **"Contract Demand" or "Sanctioned Load"** means the maximum demand in kW, kVA, or BHP, agreed to be supplied by the licensee and indicated in the agreement executed between

the licensee and the consumer.

h) **"Designated Consumer" or "DC"** means any consumers notified by the Central Government under clause (e) of Section 14 of the Energy Conservation Act, 2001 and for which a target is notified under the Statutory Orders issued by the Government of India from time to time.

i) **"Distributed Renewable Energy System" or "DRES"** means an electricity generation system not to exceed 10 MW in size and connected to the distribution network at voltage level of 33 KV or below using 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.

j) **"Eligible Consumer(s)" or "Consumer(s)"** means a consumer of electricity in the area of supply of the distribution licenses, 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.

k) **"Financial Year" or "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.

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

m) **"Group Net Metering" or "GNM"** means an arrangement whereby surplus energy 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 name and same category of consumer located within the area of supply of the distribution licensee as specified by the Commission.

n) **"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 DRES is accounted for at 100% of weighted average tariff of solar power project of 5 MW or above capacity, tariff for which has been discovered through competitive bidding either by the distribution licensee or by an intermediary agency for the distribution licensee, and which has been approved/adopted by the appropriate Commission in the last financial year or reference rate as may be determined by the Commission."

o) **"Grid Support Charges"** means the charges to be paid by the prosumers and other users of the grid, for recovering the costs related to energy storage, grid balancing etc. for facilitating energy injection into the grid.

p) **"Hosting Capacity"** means cumulative capacity of DRES allowed to be interconnected with the grid (feeder or transformer) shall not exceed as specified in the State Distribution Code or relevant regulations, as applicable.

q) **"Interconnection Point"** means the interface point of the DRES with the network of the distribution licensee.

r) **"Net Billing" or "NB"** means 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 -

- The monetary value of the imported energy is based on the applicable retail tariff.
- The monetary value of the exported renewable energy is calculated based on 100% of weighted average tariff of solar power project of 5 MW or above capacity, tariff for which has been discovered through competitive bidding either by the distribution licensee or by an intermediary agency for the distribution licensee, and which has been approved/adopted by the appropriate Commission in the last financial year or reference rate as may be determined by the Commission
- The monetary value of the 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).

s) **"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.

t) **"Normative"** means an estimation of the energy bill calculated on the basis of average energy generation by DRE during the last three calendar months.

u) **"Obligated Entity"** means an entity for which the Commission has specified requirement under clause (e) of sub-section (1) of Section 86 of the Act to fulfil the renewable purchase obligation.

v) **"Premises"** as defined under the Act and subsequent amendments thereof;

w) **"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.

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

y) **"Renewable Energy Certificate" or "REC"** means the certificate issued in accordance with the Central Electricity Regulatory Commission (Terms & Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022 and subsequent amendments thereof, if any;

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

aa) **"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 or as decided by _____ (Name of State) Electricity Regulatory Commission.

bb) **"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 distribution licensee as

specified by the Commission.

2.2. All other words and expressions used in these Regulations, although not specifically defined herein above, but defined in the Act, shall have the meaning assigned to them in the Act. The other words and expressions used herein but not specifically defined in these Regulations or in the Act but defined under any law passed by the Parliament applicable to the electricity industry in the State shall have the meaning assigned to them in such law.

3. Scope and applicability

3.1. These Regulations would apply to the DRES installed in the area of supply of the distribution licensee.

3.2. The consumer may own the DRES or may enter into a contract with the RESCO on mutual commercial arrangements for the establishment of the DRES under different metering mechanism provided under these regulations.

Provided further that, RESCO shall enter into a direct agreement with consumer as regards its payment. There will be no tripartite agreement between RESCO, consumer and the distribution licensee. Even in case of RESCO, the agreement shall be entered into between distribution licensee and eligible consumer under any of the different metering mechanism provided under these regulations.

Provided also that, the dispute between the consumer and the RESCO arising out of contractual obligations under the direct agreement shall be settled mutually by them. The distribution licensee shall not be the party to such dispute and shall not disconnect such consumer on such dispute between consumer and the RESCO.

3.3. 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.

3.4. 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.

4. Control period

4.1. The Regulation shall come into force from the date of notification in the official Gazette.

5. Metering Mechanisms, eligible consumers and allowed DRES capacities

5.1. Net Metering

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

5.1.2. The minimum capacity of DRES that can be set up under net metering mechanism shall be 1 kW, while the maximum capacity shall not exceed the sanctioned load or contract demand of the prosumer or 500 kW, whichever is lower:

Provided that DRES capacity of more than 10 kW and above (as decided by ……. (Name of State) Electricity Regulatory Commission in accordance with their state specific requirements), shall have to be equipped with hybrid inverter & battery energy storage system with a minimum storage capacity of [*][1]

5.1.3. All eligible consumers can also switch from existing net metering mechanism to net billing or gross metering or behind the meter mechanism maximum three times during life of the DRES project (or as decided by ……. (Name of State) Electricity Regulatory Commission). Further, such switch over can be allowed only once in a year (or as decided by ……. (Name of State) Electricity Regulatory Commission).

5.2. Net Billing

5.2.1. Consumers of all categories shall be allowed to install DRES under net billing mechanism.

5.2.2. The minimum capacity of DRES that can be set up under net billing mechanism shall be 1 kW.

5.2.3. The maximum capacity of DRES that can be set up under net billing mechanism shall not exceed the sanctioned load or contract demand of the prosumer or 500 kW, whichever is lower.

5.2.4. All eligible consumers can switch from existing net billing mechanism to behind the meter or gross metering mechanism maximum three times during life of the DRES project (or as decided by ……. (Name of State) Electricity Regulatory Commission). In addition, consumer categories covered under regulations 5.1.1 are also allowed to switch to net metering mechanism maximum three times during life of the DRES project (or as decided by ……. (Name of State) Electricity Regulatory Commission). Further, such switch over can be allowed only once in a year (or as decided by ……. (Name of State) Electricity Regulatory Commission).

5.3. Gross Metering

5.3.1. Consumers of all categories shall be allowed to install DRES under gross metering mechanism:

Provided, an applicant wishes to install DRES in an area which is not within the premises of a consumer shall also be allowed to install DRES under gross metering mechanism by obtaining separate connectivity.

5.3.2. The maximum capacity of DRES that can be set up under gross metering mechanism shall be 10 MW.

5.3.3. The capital expenditure on account of Service Line cum Development (SLD) and network augmentations in cases where the proposed DRES system is higher than sanctioned load or

[1] [*]:[10-20% or as decided by ……. (Name of State) Electricity Regulatory Commission in accordance with their state specific requirements) of the energy generation potential of the plant]

contract demand or the proposed DRES plant is set up in a separate premise, shall have to be borne by the consumer.

5.3.4. All eligible consumers can switch from existing gross metering mechanism to behind the meter or net billing mechanism maximum three times during life of the DRES project (or as decided by ……. (Name of State) Electricity Regulatory Commission). In addition, consumer categories covered under regulations 5.1.1 are also allowed to switch to net metering mechanism maximum three times during life of the DRES project (or as decided by ……. (Name of State) Electricity Regulatory Commission). Further, such switch over can be allowed only once in a year (or as decided by ……. (Name of State) Electricity Regulatory Commission).

5.4. Group Net Metering

5.4.1. All consumer categories specified in Regulations 5.1.1 shall only be eligible to establish DRES under group net metering mechanism:

Provided, service connection(s) of prosumer installing DRES under group net metering mechanism should have same name and same category.

5.4.2. The minimum capacity 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.

5.5. Virtual Net Metering

5.5.1. All consumer categories specified in Regulations 5.1.1 shall only be allowed to install DRES under virtual net metering mechanism.

Provided, consumers installing DRES under virtual net metering should belong to same consumer category.

5.5.2. The minimum capacity 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.

5.6. Behind the Meter

5.6.1. All Consumer categories will be allowed to opt for behind the meter mechanism.

5.6.2. 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 prosumer.

5.6.3. All eligible consumers can switch from existing behind the meter to gross metering or net billing mechanism maximum three times during the life of the DRES project (or as decided by ……. (Name of State) Electricity Regulatory Commission). In addition, consumer covered under regulations 5.1.1 are also allowed to switch to net metering mechanism maximum three times during the life of the DRES project (or as decided by ……. (Name of State) Electricity Regulatory Commission). Further, such switch over can be allowed only once in a year (or as decided by ……. (Name of State) Electricity Regulatory Commission).

5.7. The summary of the capacities and eligible consumer categories that are permissible under different metering mechanism is shown in the table below:

Metering Mechanism	Capacity that can be availed		Eligible consumer categories	DRES Locations
	Minimum	Maximum		
Net Metering	1	Up to Sanction Load / Contract Demand or 500 kW, whichever is lower	Domestic consumers, agricultural consumes, group housing, institutions run or managed by charitable organisations, government buildings including schools, building belonging to local authorities	In consumer premises
Net Billing	1	Up to Sanction Load / Contract Demand or 500 kW, whichever is lower	All Consumer Categories	In consumer premises
Gross Metering	1	Up to Sanction Load / Contract Demand	All Consumer Categories	In consumer premises or any other locations
Group Net Metering	5	Up to combined Sanction Load / Contract Demand of all participating service connections	Domestic consumers, agricultural consumers, group housing, institutions run or managed by charitable organisations, government buildings including schools, building belonging to local authorities	In Consumer Premises at one of his service connection locations.
Virtual Net Metering	5	Up to combined Sanction Load / Contract Demand of all participating consumers	Domestic consumers, agricultural consumers, group housing, institutions run or managed by charitable organisations, government	In consumer premises or any other locations

			buildings including schools, building belonging to local authorities	
Behind the Meter	1	Up to Sanction Load / Contract Demand	All Consumer Categories	In consumer premises

6. Energy Accounting

6.1. Net Metering

6.1.1. The consumer may set up DRES to offset consumer's electricity consumption from the distribution licensee.

6.1.2. The distribution licensee shall undertake meter reading of all DRES according to the regular metering cycle.

6.1.3. The distribution licensee shall record readings of bi-directional meter and generation meter (if made mandatory to install by the Commission).

6.1.4. 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, if Generation meter is made mandatory by the Commission.

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 it for RPO 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.

6.1.5. 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.

6.1.6. 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.

6.1.7. In case the prosumer is under the ambit of time-of-day tariff, as determined by the Commission from time to time, the following process shall be followed:

a) Electricity consumption in any time block (e.g., peak hours, off-peak hours, etc.) shall be first compensated with the electricity generation in the same time block.

b) Any cumulative excess injected electricity over and above consumption in any other time block in a billing cycle shall be accounted as if the excess injection had occurred during off-peak time blocks.

c) This process will continue till all consumption in off-peak time blocks is set off against DRES generation in the time blocks specified in 6.1.7.

d) Any excess generation after setting off consumption in off-peak time blocks would be carried forward to the next billing cycle.

e) Same process would be used to set off consumption in the subsequent billing cycle.

6.1.8. The excess electricity at the end of settlement period [*][2] shall be settled by the distribution licensee at 75% of weighted average tariff of solar power project of 5 MW or above capacity, tariff for which has been discovered through competitive bidding either by the distribution licensee or by an intermediary agency for the distribution licensee, and which has been approved/adopted by the appropriate Commission in the last financial year or reference rate as may be determined by the Commission.

Provided further that at the beginning of each settlement period [**][3], i.e., April, carried forward electricity shall be zero.

6.1.9. 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.

6.1.10. In case, the consumer tariffs have been determined by the Commission on kVAh basis, the generation and consumer meter readings shall also be taken in kVAh and settlement of energy done accordingly.

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

6.1.12. The distribution licensee shall accept the power as per the useful life of the DRES unless the prosumer ceases to be a consumer of the licensee or DRES is abandoned earlier.

6.2. Net Billing

6.2.1. The consumer may set up DRES to offset consumer's electricity purchase bill from the distribution licensee.

6.2.2. The distribution licensee shall undertake meter readings of bidirectional meter and generation meter (if made mandatory to install by the Commission), according to the regular billing cycle.

[2] [*]:[…….(Name of State) Electricity Regulatory Commission may define settlement period factoring their state specific conditions.]

[3] [**]:[…….(Name of State) Electricity Regulatory Commission may define settlement period factoring their state specific conditions.]

6.2.3. 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, if Generation Meter is made mandatory by the Commission;

b) Quantum of electricity units consumed by the Consumer in the billing cycle, including opening and closing balance;

c) Quantum of energy injected into/from Grid of the Distribution Licensee;

d) Renewable Energy generation units used by the Distribution Licensee for RPO compliance.

6.2.4. The energy generated by the DRES shall be first used for self-consumption and surplus energy injected into the Grid or energy drawn from the Grid shall be billed as per following equation:

Energy Bill of consumer =

Fixed Charges + Other applicable charges and levies + ((E_{DL} – Open Access Quantum) × T_{RST}) - (E_{RE} × T_{RR}) – Billing Credit (carry forward from last billing cycle);

Where:

a) Fixed Charges means the Fixed/Demand Charges as applicable to the consumer category as per the applicable retail supply Tariff Orde;

b) Other charges and levies mean any other charges such as duties and taxes, cess, etc.;

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.

e) E_{RE} means the energy injected into the Grid by the prosumer.

f) T_{RR} means 100% of weighted average tariff of solar power project of 5 MW or above capacity, tariff for which has been discovered through competitive bidding either by the distribution licensee or by an intermediary agency for the distribution licensee, and which has been approved/adopted by the appropriate Commission in the last financial year or reference rate as may be determined by the Commission.

g) Billing Credit is credit available from previous months.

6.2.5. The monetary value of the imported energy is debited based on the applicable retail tariff determined by the Commission from time to time. The monetary value of the exported energy is credited based on the 100% of weighted average tariff of solar power project of 5 MW or above capacity, tariff for which has been discovered through competitive bidding either by the distribution licensee or by an intermediary agency for the distribution licensee, and which has been approved/adopted by the appropriate Commission in the last financial year or reference rate as may be determined by the Commission. The monetary value of the exported energy is deducted from the monetary value of imported energy to arrive at the net amount to be billed.

6.2.6. 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 a settlement period [*][4], the net credit balance (if any) shall be paid by the distribution licensee to the eligible consumer.

6.2.7. The distribution licensee shall accept the power as per the useful life of the DRES, unless the Eligible Consumer ceases to be a consumer of the Licensee or the DRES is abandoned earlier.

6.3. Gross Metering

6.3.1. Gross metering is permitted to all eligible consumers who opts to sell all energy generated by DRES to the distribution licensee by injecting the entire generation into the distribution grid.

6.3.2. 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 RPO compliance.

6.3.3. The distribution licensee shall undertake meter reading of both the Generation meter and the consumer meter according to regular billing cycle.

6.3.4. The distribution licensee shall purchase entire energy generated from the DRES system at the rate computed as 100% of weighted average tariff of solar power project of 5 MW or above capacity, tariff for which has been discovered through competitive bidding either by the distribution licensee or by an intermediary agency for the distribution licensee, and which has been approved/adopted by the appropriate Commission in the last financial year or reference rate as may be determined by the Commission.

6.3.5. The energy supplied by the distribution licensee shall be billed as per tariff schedule for respective category of consumers in accordance with terms and conditions of prevalent Retail Supply Tariff Order.

6.3.6. The distribution licensee shall prepare a net bill comprising of the amount payable by the distribution licensee as per regulations 6.3.4 above and amount payable by the consumer as per regulations 6.3.5 as 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:

Provided further that if net bill amount for a billing cycle is payable by the distribution licensee, then the same shall be paid to the consumers within the due date or shall be carry

[4] [*]: […….(Name of State) Electricity Regulatory Commission may define settlement period factoring their state specific conditions.]

forward to the next billing cycle (or as decided by ……. (Name of State) Electricity Regulatory Commission).

6.3.7. In case of carry forward to next billing cycle, the credited carry forward amount payable by the distribution licensee, shall be paid to the consumers at the end of each settlement period [*][5].

6.4. Group Net Metering

6.4.1. The consumer may set up DRES to offset the electricity consumption of more than one electricity service connection(s) of the same name and same category of consumer located within the area of supply of the distribution licensee.

6.4.2. The distribution licensee shall undertake the meter reading of the bidirectional meter as per regular billing cycle. The reading at the generation points and the consumer's installations shall be carried out on the same date.

6.4.3. The energy generated from DRES shall be credited in the electricity bill of each participating connection(s), for each billing cycle, as per the priority indicated in the connectivity 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.

6.4.4. 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 grid 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.

6.4.5. The priority list for adjustment of the balance surplus energy against other electricity connection(s) may be revised by the Consumer once at the beginning of each financial year with an advance notice of three months.

6.4.6. The electricity consumption in any time block (e.g., peak hours, off-peak hours, etc.) shall be first compensated with the electricity generation in the similar time blocks in the same billing cycle of the Consumer where the DRES is located, and any surplus units injected 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, as if the surplus generation/ Energy Credits occurred during the off peak time block for Time of Day (ToD) Consumers and normal time block for Non-ToD Consumer.

6.4.7. Where during any billing cycle, the export of units either in peak or off-peak hours exceeds the import of units by the electricity service connection(s), such surplus units injected by the Consumer shall be carried forward to the next billing cycle as energy credit and shown as energy exported by the Consumer for adjustment against the energy consumed in subsequent billing cycles within the Settlement Period in the sequence indicated in the priority list.

6.4.8. The unadjusted net credited units of electricity as at the end of each financial year shall be considered as units purchased by the Distribution Licensee at 75% of weighted average tariff

[5] [*]: […….(Name of State) Electricity Regulatory Commission may define settlement period factoring their state specific conditions.]

of solar power project of 5 MW or above capacity, tariff for which has been discovered through competitive bidding either by the distribution licensee or by an intermediary agency for the distribution licensee, and which has been approved/adopted by the appropriate Commission in the last financial year or reference rate as may be determined by the Commission:

Provided that, at the beginning of each Settlement Period [*][6], the cumulative quantum of injected electricity carried forward will be re-set to zero.

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

6.5. Virtual Net Metering

6.5.1. The group of two or more consumer(s) from the same consumer category may set up DRES to offset the electricity consumption of more than one electricity service connection(s) of participating consumers located within the area of supply of the Distribution Licensee.

6.5.2. The distribution licensee shall undertake meter reading of the Generation Meter as per regular billing cycle. The readings of the installations of the participating consumer(s) shall also be carried out on the same date i.e. Generation Meter reading date.

6.5.3. 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.

6.5.4. The Consumer(s) shall have the option to change the share of credit of electricity from DRES by submitting a fresh agreement/MoU subject to the 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.

6.5.5. 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(s) shall be paid by the Distribution Licensee at the end of the financial year.

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

6.5.7. 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

[6] [*]:[…….(Name of State) Electricity Regulatory Commission may define settlement period factoring their state specific conditions.]

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

6.5.8. The unadjusted net credited units of electricity as at the end of each financial year shall be considered as units purchased by the Distribution Licensee at 75% of weighted average tariff of solar power project of 5 MW or above capacity, tariff for which has been discovered through competitive bidding either by the distribution licensee or by an intermediary agency for the distribution licensee, and which has been approved/adopted by the appropriate Commission in the last financial year or reference rate as may be determined by the Commission:

Provided that, at the beginning of each Settlement Period [*][7], the cumulative quantum of injected electricity carried forward will be re-set to zero.

6.6. Behind the Meter

6.6.1. The consumer may set up DRES for the self-consumption and not sell electricity generated by DRES to the distribution licensee.

6.6.2. 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.

Provided that, the Consumer shall be responsible for ensuring that all necessary safeguarding measures as specified by CEA are taken.

6.6.3. In case, the Consumer installs DRES without prior intimation, the consumer shall have to intimate about the same to the respective distribution licensee within a timeframe of three months. Failure to intimate within stipulated timeframe shall attract one time penalty of INR 1000/kW of installed DRES capacity or as determined by the Commission.

6.6.4. 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:

Provided that, 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 further that, any quantum of energy injected by such DRES connected behind the Consumer's meter shall be considered as inadvertent injection and penalty shall be levied on such inadvertent injection as determined by the Commission under applicable relevant Regulations in force.

7. Applicability of Charges

7.1. The quantum of electricity generated from the self-owned or the RESCO owned DRES under net metering, net billing, gross metering and behind the meter arrangements, if installed on Eligible Consumer premises shall be exempted from banking charges, wheeling charges, cross subsidy surcharge, and additional surcharge.

[7] [*]:[…….(Name of State) Electricity Regulatory Commission may define settlement period factoring their state specific conditions].

7.2. **Group Net Metering**

a) The DRES (whether self-owned or RESCO owned) and other participating service connections are connected on the same DTL / same feeder (as decided by ……. (Name of State) Electricity Regulatory Commission), no charges shall be applicable.

b) The other participating service connections and the DRES are not connected to the same DTL or same feeder (as decided by ……..(Name of State) Electricity Regulatory Commission), all charges along with applicable losses (except cross subsidy surcharge and additional surcharge) in accordance with Green Energy Open Access Regulations / Open Access Regulations issued by respective Electricity Regulatory Commission shall be applicable.

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

7.3. Virtual Net Metering

a) The DRES (whether self-owned or RESCO owned) and participating consumers are connected on the same DTL / same feeder (as decided by ……..(Name of State) Electricity Regulatory Commission), no charges shall be applicable. In other scenario, all charges along with applicable losses in accordance with Green Energy Open Access Regulations / Open Access Regulations issued by respective……(Name of State) Electricity Regulatory Commission shall be applicable.

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

7.4. The Commission may stipulate from time to time the "Grid Support Charge" to be levied on the energy generated by DRES under virtual net metering, group net metering and behind the meter arrangements, which shall cover balancing, banking and wheeling cost after adjusting RPO benefits, avoided distribution losses and any other benefits accruing to the distribution licensee. The Grid Support Charges should be determined by consumer tariff category wise, based on the proposal of the distribution licensee in its retail supply tariff petition, supported by adequate justification:

Provided that no Grid Support Charges shall be levied on net metering, net billing and gross metering consumers.

8. Subsidies

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

8.2. The ……. (Name of State) Electricity Regulatory Commission may estimate DRES capacity wise reference rate after considering the subsidy provided by the MNRE or State Government.

9. Hosting Capacity

9.1. The cumulative capacity of DRES allowed to be interconnected with the distribution network (feeder/distribution transformer) shall not exceed as specified in State Distribution

Code or relevant regulations, as applicable.

Provided that the feeder or transformer mentioned above, considered for the purpose of calculating the hosting capacity, shall mean the feeder or transformer owned by the distribution licensee.

10. Interconnection with the grid: technical standards and safety

10.1. The voltage level for interconnection with the grid shall be as specified in the …. Electricity Supply Code or the voltage level at which the consumer has been given supply by the distribution licensee.

10.2. 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 subsequent amendments thereof, if any.

10.3. The prosumer opting for net metering or net billing or group net metering, shall be responsible for safe operation, maintenance and rectification of any defect of the DRES up to the point of bidirectional meter, beyond which the responsibility of safe operation, maintenance and rectification of any defect in the system, including the bidirectional meter, shall be that of the distribution licensee.

10.4. In case of gross metering and virtual net metering, the consumer shall be responsible for safe operation, maintenance and rectification of any defect of the DRES up to the point of generation meter.

10.5. The distribution licensee shall have the right to disconnect the DRES at any time in the event of threat/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 immediately on such rectification the licensee shall restore the connection to the DRES concerned.

10.6. The DRES and inverter specifications [*][8] thereof must comply with the applicable provisions of Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and amendments thereof;

11. Metering Infrastructure

11.1. All meters installed at the DRES shall comply with the CEA (Installation and Operation of

[8] [*]:[Explanation: With the rapid expansion of DRES installations, ensuring compliance with technical standards and grid interactive protocols for inverters has become increasingly important. Inverters must meet requirements such as Low Voltage Ride Through (LVRT), Reference Voltage and Frequency Settings, Harmonic Distortion Limits and Anti-Islanding protection to maintain grid stability and power quality. To avoid operational issues from uncoordinated or non-compliant systems, it is essential that the regulation mandates the use of certified inverters conforming to applicable IEEE and IEC standards and should be clearly specified in the inverter technical requirements to ensure uniformity, safety, and reliable integration of DRES into the grid].

Meters) Regulations, 2006 and subsequent amendments thereof.

11.1. All meters shall have Advanced Metering Infrastructure (AMI) facility with RS 485 (or higher) communication port or any other advance communication facility.

11.2. In case of net metering, net billing and group net metering, the interconnection point shall be at the prosumer side of the bidirectional meter.

11.3. In case of gross metering and virtual net metering, the interconnection point shall be at the DRES side of the Generation meter.

11.4. In case of behind the meter, the DRES system shall be connected behind the Consumer's meter.

11.5. The generation and bidirectional meter(s) shall be procured, installed and maintained by the distribution licensee. However, if the prosumer wishes to procure the meter(s), he may procure and present them to the distribution licensee for testing and installation.

11.6. The distribution licensee shall undertake meter testing before installation to ensure accuracy of the meter.

11.7. The meter shall be tested or checked only in the presence of the representatives of the prosumer or RESCO, as the case may be, by the distribution licensee and as per the procedure specified in the Electricity Supply Code specified by the Commission. If the consumer chooses not to be present at the site for testing, the distribution licensee will carry out such testing and shall give the copy of the meter test report to the consumer for signing.

11.8. If the eligible consumer is under the ambit of time-of-day tariff, both generation and bi-directional meters shall be capable of recording time of day consumption/ generation.

11.9. The distribution licensee, within three months of the date of notification of these Regulations, shall modify its existing metering and billing infrastructure to facilitate the metering arrangements as envisaged under these Regulations.

12. Energy Accounting during Meter Defect/Failure/Burnt

12.1. In case of defective/failure/burnt condition of any meter, the prosumer shall report the failure, to the distribution licensee in the specified format of distribution licensee.

12.2. The distribution licensee shall replace the meter as specified in the Electricity Supply Code.

12.3. The electricity generated by the DRES during the period in which the meter is defective shall be computed on normative basis.

13. Application Process and Procedure

13.1. The distribution licensee shall facilitate the process of setting up the DRES system. In this regard, the distribution licensee shall:

a) Notify separate guidelines for DRES projects to be implemented under different metering mechanism within one month of date of notifications of these regulations and submit to the Commission for the approval.

b) Create/update a web-based portal for receiving applications from prosumers for installation, interconnection and metering of DRES at their premises within three months from the date of notifications of these regulations.

c) Prominently display on its website and web-portal, the following; namely:-

- detailed standardized procedure for installation and commissioning of DRES under different metering mechanism under these regulations;
- a single point of contact to facilitate the consumers in installation of DRES from submission of application form to commissioning.
- complete list of documents required to be furnished along with such applications.
- applicable charges to be deposited by the applicant.
- Standard agreements for different metering mechanism defined under these regulations;
- empanelled list of service providers for the benefit of consumers who want to install DRES through service providers;
- financial incentives to the prosumers, as applicable under various schemes and programmes of the Central and State Governments.
- Feeder or distribution transformer wise hosting capacity available for connected DRES.
- Record of capacity of DRES system installed under different metering mechanism.

d) The distribution licensee shall define the guidelines in accordance with the guidance provided by the Central and State Governments from time to time.

e) Matters related to subsidy application shall be dealt by the Nodal Agency appointed by Ministry of New and Renewable Energy & State Government from time to time.

14. Renewable Consumption Obligations

14.1. Distribution Licensee shall purchase certain percentage of its total electricity supplied to its consumers from DRES in a year, as per the regulations issued by …….. (Name of State) Electricity Regulatory Commission. The …….. (Name of State) Electricity Regulatory Commission may define quantum of purchase from distributed renewable energy sources[9]in accordance with notification issued by Ministry of Power dated

[9]*The Distributed Renewable Energy component shall be met only form 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) and other renewable energy sources notified by the Central Government.*

The specified minimum share of electrical energy from DRES as a percentage of total electrical energy consumption is mentioned in below table:

Year	*Distributed Renewable Energy Sources (Percentage)*
FY 2024-25	*1.50%*
FY 2025-26	*2.10%*
FY 2026-27	*2.70%*
FY 2027-28	*3.30%*
FY 2028-29	*3.90%*
FY 2029-30	*4.50%*

27th September 2025 and amendments thereof.

14.2. The quantum of distributed renewable energy generation as recorded by the generation meter shall be accounted by the distribution licensee towards compliance of its Renewable Consumption Obligation (RCO) as stipulated in these Regulations.

Provided that in case the DRES is set up by DCs or Open Access Consumers or Captive Users, entire renewable energy generated by these renewable energy systems shall be accounted to meet RCO by the DCs or Open Access Consumers or Captive Users.

Provided that in case the DRES is set up by DCs or Open Access Consumers or Captive Users, and at the end of the settlement period, the licensee pays for any such quantum of renewable power injected by the DRES but left unadjusted, the quantum of such power will be considered towards meeting RCO of the distribution licensee.

15. Eligibility to Participate under Renewable Energy Certificate Mechanism

15.1. The issuance of Renewable Energy Certificate shall be as per the eligibility criteria specified under Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022 and subsequent amendments thereof, if any.

16. Power to Give Directions

16.1. The Commission may from time to time issue such directions and orders as considered appropriate for implementation of these Regulations.

17. Power to Relax

17.1. The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected, may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

18. Power to Amend

18.1. The Commission may from time to time add, vary, alter, suspend, modify, amend or repeal any provisions of these Regulations.

19. Power to Remove Difficulties

19.1. If any difficulty arises in giving effect to the provisions of these Regulations, the Commission may, by an order, make such provisions, not inconsistent to the provision of the Act and these Regulations, as may appear to be necessary for removing the difficulty.

20. Repeal and Savings

20.1. Save as otherwise provided in these regulations, the _____ Regulations, all subsequent amendments thereto and Procedures thereof shall stand repealed from the date of coming into force of these regulations.