

REGULATION NO. 5 OF 2022

Andhra Pradesh Electricity Regulatory Commission
(Renewable Power Purchase Obligation – Compliance by Purchase of
Renewable Energy / Renewable Energy Certificates)
Regulation, 2022

Amendment

1. First Amendment vide Regulation No. 06 of 2023, dated 14-07-2023

ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

Lr.No.APERC/Secy F.No.S-19 (Vol.II) /D.No.598/2022 Date: 29-09-2022.

APERC RENEWABLE POWER PURCHASE OBLIGATION (COMPLIANCE BY PURCHASE OF RENEWABLE ENERGY / RENEWABLE ENERGY CERTIFICATES) REGULATIONS, 2022.

REGULATION No.5 OF 2022

Introduction:

Renewable Power Purchase obligation was specified by this Commission on the obligated entities for the period from 01.04.2017 to 31.03.2022 vide the APERC Renewable Power Purchase Obligation (Compliance by purchase of Renewable Energy/Renewable Energy Certificates) Regulations, 2017. Such an obligation needs to be specified for the period subsequent to FY 2021- 22 onwards. Therefore, in exercise of the powers conferred under sections 61(h), 66, 86(1) (e), and 181 of the Electricity Act, 2003 and all other powers enabling it in this behalf, the Andhra Pradesh Electricity Regulatory Commission hereby makes the following Regulations for specifying the obligation for purchase of Renewable Power and its compliance by the purchase of Renewable Energy/Renewable Energy Certificates:

1. **Short title and commencement:**

- (i) These Regulations may be called the APERC Renewable Power Purchase Obligation (Compliance by purchase of Renewable Energy/ Renewable Energy Certificates) Regulations, 2022.
- (ii) These Regulations shall come into force with effect from the date of their publication in the official Gazette.
- (iii) These Regulations shall apply throughout the State of Andhra Pradesh.

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) '**Central Agency**' means the agency operating the National Load Dispatch Centre (NLDC) or such other agency as the Central Commission may designate from time to time;

- (c) **'Central Commission'** means the Central Electricity Regulatory Commission constituted under section 76 of the Act;
- (d) **'Commission'** means the Andhra Pradesh Electricity Regulatory Commission constituted under section 82 of the Act;
- (e) **'Hybrid Energy Sources'** means two or more Renewable Energy Sources used together or any single Renewable Energy Source coupled with any Storage Technology (Battery and/or Pumped Storage utilising renewable energy to store energy, etc.) to provide increased system efficiency as well as greater balance in energy supply.
- (f) **'MNRE'** means the Ministry of New and Renewable Energy;
- (g) **'Month '** means calendar month;
- (h) **'Obligated Entity'** means an entity obligated to purchase renewable power under clause (3) of these Regulations;
- (i) **'Open Access Consumer'** means a consumer availing open access under sub-section (2) of Section 42 of the Act;
- (j) **'Pooled Cost of Power Purchase'** means the weighted average pooled price at which the Distribution Licensee has purchased electricity in the previous year from all the long-term energy suppliers excluding the purchases based on the usage of liquid fuel or annual weighted average rate of market purchases by the DISCOMs whichever is lower. Provided that the purchases from renewable sources shall not be taken into account while determining the 'Pooled Cost of Power Purchase';
- (k) **'Power Exchange'** means a power exchange as defined under sub-clause (as) of clause (1) of Regulation 2 of the Central Electricity Regulatory Commission(Power Market) Regulations, 2021 as amended from time to time;
- (l) **'Renewable Energy Certificates (RECs)'** means the Renewable Energy Certificates issued by the Central Agency in accordance with the Regulations specified in the Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022 as amended from time to time;
- (m) **'Renewable Energy Sources'** means renewable sources such as cogeneration plants including WHRS (Waste Heat Recovery System)

plants irrespective of the type of fuel utilised, Hydel, Pumped Hydro Storage utilising Renewable Energy, Municipal Waste, Industrial Waste, Biomass, Bagasse, Wind, Solar, Hybrid Energy Sources, biofuel cogeneration, Geo- thermal, Tidal and such other sources as recognized or approved by MNRE;

- (n) **'RESCOs'** means Rural Electric Cooperative Societies in the State of Andhra Pradesh.
- (o) **'RPPO'** means Renewable Power Purchase Obligation specified under clause (3) of these Regulations;
- (p) **' State Agency'** means the State Load Despatch Centre of the State of Andhra Pradesh established under sub-section (1) of section 31 of the Act or any other agency so designated by the Commission under Clause (5.5) of these Regulations to act as the agency for accreditation and recommending the renewable energy projects for registration and to undertake functions under these Regulations;
- (q) **'Year'** means Financial Year;

Words and expressions used in these Regulations and not defined herein, but defined in the Act or the Rules or Regulations issued by the Central Commission or any other Regulations issued by the Commission, shall have the same meaning assigned to them respectively in the Act or the rules or such Regulations issued by the Central Commission or by the Commission.

3. Renewable Power Purchase Obligation (RPPO):

- 3.1 Every Distribution Licensee shall purchase from renewable energy sources at the tariff determined by the Commission under Section 62 of the Act or at tariffs discovered through a transparent process of bidding u/s 63 of the Act and adopted by the Commission, minimum quantities of electricity expressed as a percentage of its consumption of energy for different periods as specified in Table-I below.

TABLE-I

Period	From the date of publication of these Regulations in the official gazette to the end of FY 2022-23	FY 2023-24	FY 2024-25	FY 2025- 26	FY 2026-27
RPPO, i.e. the minimum quantity of renewable electricity to be purchased as a percentage of total consumption	18%	19%	20%	22%	24%

Provided that the consumption of renewable energy by a Distribution Licensee from its own sources shall also be counted towards the fulfillment of RPPO by such a Licensee;

Provided further that the purchase of renewable energy by a Distribution Licensee from Power Exchanges shall also be counted towards the fulfillment of RPPO by such a Licensee;

Provided further that the quantum of electricity generated by a Consumer from the Roof-top Solar PV System under the net metering arrangements shall, if such consumer is not an obligated entity, qualify towards meeting the RPPO of the Distribution Licensee.

The Distribution Licensee shall install, at its own cost and with the consent of the Consumer, a Solar Generation Meter conforming to the applicable CEA Regulations at an appropriate location to measure the energy generated from the Roof-top Solar PV System, if it desires that such energy be counted towards meeting its RPPO. The Solar Generation Meter shall be maintained by the Distribution Licensee at its own cost.

Provided that the Distribution Licensee need not install separate meters if the existing meters at the appropriate locations in the roof-top solar plants meet the requirements specified in the CEA Metering Regulations

Provided further that the purchases made from solar roof-top projects under the gross metering scheme, purchases made at mutually agreed prices and all such renewable energy for which the generator(s) does/do not claim RECs shall also be counted towards the fulfilment of RPPO specified in Table-I;

Provided further that the purchase of renewable energy by a Distribution Licensee from other Distribution Licensees in the State of Andhra Pradesh shall also be counted towards the fulfillment of RPPO by such a licensee;

Provided further that the purchase of RECs issued under the Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022 as amended from time to time, shall also be counted towards fulfillment of RPPO specified in Table-I;

Provided further that if the Distribution Licensee intends to fulfil the RPPO for a particular financial year through self-retention of RECs obtained for that financial year, it shall apply to the State Agency for such self-retention;

Provided further that the Distribution Licensees are allowed to fulfil the RPPO for the last quarter of a financial year during the first quarter of the succeeding financial year;

Provided further that every Distribution Licensee in the State of Andhra Pradesh shall compulsorily procure 100% power produced from all the Waste-to-Energy plants geographically located in its area of supply, at the tariff determined by the Commission under Section 62 of the Act;

Provided further that the renewable energy purchased shall be offset towards the RPPO of the Distribution Licensees, only if the generator(s) from whom the Licensee purchases such energy does/do not claim RECs on such energy.

Provided further that the renewable power procured by the Distribution Licensees from renewable energy sources bundled with coal/lignite based thermal generation shall be counted towards the fulfilment of RPPO;

Provided further that the energy consumption of a RESCO, if any, located in the area of a Distribution Licensee shall be taken into account for calculating the energy consumption of that Distribution Licensee for the purpose of computing its RPPO under these Regulations. There shall be no separate RPPO on the RESCOs;

Provided further that the State Agency shall submit the details of the surplus renewable energy purchased by the Distribution Licensees in a particular financial year as per clause 3.1 of these Regulations that is over and above their RPPO, to the Commission within one month from the end of that financial year;

Provided also that the Commission may, either on its own motion or on the recommendation of the State Agency or on receipt of an application from the Distribution Licensee(s), revise for any year the RPPO percentages specified in Table-I of these Regulations as deemed appropriate.

- 3.2 Every Open Access Consumer in the State of Andhra Pradesh shall purchase from renewable energy sources, minimum quantities of electricity expressed as a percentage of his consumption of energy through open access for different periods as specified in TABLE- I under clause 3.1 of these Regulations.

Provided that the purchase of renewable energy by the Open Access Consumer from Power Exchanges shall also be counted towards the fulfilment of RPPO by such an Open Access Consumer;

¹[Provided that the purchase of Renewable Energy by the Open Access Consumer from the Distribution Licensee as per the procedure stipulated in clause 3.4 of this regulation shall also be counted towards the fulfillment of RPPO by such an Open Access Consumer];

Provided further that the quantum of electricity consumed by the Open Access Consumer from the Roof-top Solar PV System under the Net Metering Arrangement shall qualify towards compliance of RPPO;

The Open Access Consumer shall install, at his own cost, a Solar Generation Meter conforming to the applicable CEA Regulations at an appropriate location to measure the energy generated from the Roof-top Solar PV System, if he desires such energy to be counted towards meeting his RPPO;

Provided that the renewable power procured by the Open Access consumers from renewable energy sources bundled with coal/lignite based thermal generation shall be counted towards the fulfillment of RPPO;

Provided further that the renewable energy purchased shall be offset towards the RPPO of the Open Access Consumer only if the generator(s) from whom he purchased such energy does/do not claim RECs on such energy;

Provided further that the purchase of Renewable Energy Certificates issued under the Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2022 as amended from time to time, shall also be treated as the fulfillment of the RPPO specified in Table-I;

Provided further that if the Open Access Users intend to fulfil their RPPO for a particular financial year through self-retention of RECs obtained for that financial year, they shall apply to the State Agency

¹ Ins. from [Reg.No.6 of 2023](#), dated 14.07.2023

for such self-retention;

Provided further that the Open Access Users are allowed to fulfil the RPPO of last quarter of a financial year during the first quarter of the succeeding financial year;

Provided further that the State Agency shall submit the details of the surplus renewable energy purchased by the Open Access Consumers in a particular financial year that is over and above their RPPO, to the Commission within one month from the end of that financial year;

Provided further that the Commission may, either on its own motion or on the recommendation of the State Agency or on receipt of an application from the Open Access User(s), revise for any year the RPPO percentages specified in Table-I of these Regulations as deemed appropriate.

- 3.3 Every consumer owning a captive generating plant of installed capacity of One (1) MW and above and Connected to the Grid, shall purchase from Renewable Energy sources / consume from his captive Renewable Energy Sources, minimum quantities of electricity expressed as a percentage of his consumption of energy from such captive generating plant for different periods as specified in TABLE-I under clause 3.1 of these Regulations.

Provided that the purchase of renewable energy by the Captive Consumer from Power Exchanges shall also be counted towards the fulfillment of RPPO by such a Captive Consumer;

²[Provided that the purchase of Renewable Energy by the captive consumer from the Distribution Licensee as per the procedure stipulated in clause 3.4 of this regulation shall also be counted towards the fulfillment of RPPO by such a captive Consumer];

Provided further that the quantum of electricity consumed by the

² Ins. from [Reg.No.6 of 2023](#), dated 14.07.2023

Captive Consumer from the Roof-top Solar PV System under the Net Metering Arrangement shall qualify towards compliance of RPPO.

The Captive Consumer shall install, at his own cost, a Solar Generation Meter conforming to the applicable CEA Regulations at an appropriate location to measure the energy generated from the Roof-top Solar PV System, if he desires such energy to be counted towards meeting his RPPO.

Provided further that the renewable power procured by the Captive Consumers from renewable energy sources bundled with coal/lignite based thermal generation shall be counted towards the fulfillment of RPPO;

Provided further that the renewable energy purchased shall be offset towards the RPPO of the Captive User only if the generator(s) from whom he purchased such energy does/do not claim RECs on such energy;

Provided further that the purchase of RECs issued under the Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022 as amended from time to time, shall also be counted towards the fulfillment of RPPO specified in Table-I of these Regulations;

For the purpose of these Regulations, "Connected to the Grid" shall mean that the captive generating plant is connected with the network of the Distribution Licensee or the Transmission Licensee, as the case may be and is being operated in parallel with the network.

Provided that any generating plant not meeting the eligibility condition for a Captive Generating Plant as prescribed in Indian Electricity Rules, 2005, but having self-consumption, is also required to meet the RPPO as specified in Table- I of these Regulations;

Provided further that if the Captive Consumer intends to fulfil his RPPO for a particular financial year through self-retention of RECs obtained for the financial year, he shall apply to the State Agency for such self-retention;

Provided further that the Captive Consumers are allowed to fulfil the RPPO of the last quarter of a financial year during the first quarter of the succeeding financial year;

Provided further that the Commission may, either on its own motion or on the recommendation of the State Agency or on receipt of an application from the Captive Consumers, revise for any year the RPPO percentages specified in Table-I of these Regulations as deemed appropriate.

Note: - In case an obligated entity(ies) other than the distribution licensees intends/intend to install a co-located renewable energy generating plant within the premises of the its consumption so as to utilise the generation from such plant towards the fulfillment of RPPO, then such entity(ies) shall install meters of appropriate class of accuracy at appropriate locations for measurement of gross generation, Auxiliary consumption & Captive Consumption, and have them duly sealed by the concerned licensees. The concerned licensees shall take monthly readings, including MRI dumps for all such meters, for the purpose of accounting the energy towards RPPO of such obligated entity(ies).

³[3.4 Renewable Energy procurement from Distribution Licensee by obligated entities/ non-obligated entities at Green Tariff without need to change of category.

The obligated /non-obligated entities may purchase Renewable Energy from the Distribution Licensee in the following manner:

- i Any entity may elect to purchase Renewable Energy either up to a certain percentage of the consumption or its entire consumption and accordingly, they shall place a requisition for this with their distribution licensee, three months before the date of the commencement of the financial year during which the

³ Ins of new sub.clause 3.4 from [Reg.No.6 of 2023](#), dated 14.07.2023

entities intended to procure from FY 2024-25. For the balance period of FY 2023-24, the entities may place a requisition with their distribution licensee within one month from the date of this regulation coming in to force. Then, the distribution licensee shall procure such quantity of Renewable Energy and supply it to the entities concerned.

- ii. The obligated entities may purchase on a voluntary basis, more renewable energy than their obligation and up to a hundred percent. The percentage of renewable energy requisite by obligated/non-obligated entities from the distribution licensees shall not be less than RPO specified by the Government of India/APERC for the obligated entities whichever is higher for that financial year.
- iii. The Green Tariff for the Renewable Energy supplied by the distribution licensee for FY 2023-24 shall be 75 paise over and above the normally applicable tariff for respective entities as per the RST Order for FY 2023-24 issued by the Commission. This tariff for future years will be as per RST Orders to be issued by the Commission. The energy consumed at 75 paise over and above the normally applicable tariff out of the total energy consumed by the entities from the distribution licensees shall be treated as the Renewable Energy supplied by the distribution licensee during that billing month. The Distribution Licensee shall issue the monthly digital certificate (physical certificate on specific request) to such consumers certifying the quantity of Renewable Energy out of the total consumption.
- iv. All electricity consumers in the State have the option to source 100% Renewable Energy power by additionally paying above stated Green Tariff at their respective categories without to opt a separate category "Green Power" that is already in place as per RST Order approved by the Commission.
- v. Any requisition for Renewable Energy from a distribution licensee shall be for a minimum period of one year from FY 2024-25 and a balance period for FY 2023-24 and accordingly, month-wise energy shall be specified.

- vi. The Renewable Energy purchased from the distribution licensee in excess of the Renewable Purchase Obligation of an obligated entity and 100 percent of energy procured by the non-obligated entities shall be counted towards Renewable Purchase Obligation compliance of the distribution licensee;
- vii. The revenue earned by the distribution licensee from the sale of renewable energy to entities/consumers under the Green Tariff shall be considered as revenue from the sale of power. The Distribution Licensee shall separately maintain tariff category and sub-category wise accounting of no. of consumers, connected load, sale, and revenue from sale under the Green Tariff for consumers and the same shall be shown separately by the distribution licensees at the time of ARR filings, and truing up.
- viii. The distribution licensee shall give a green stars certificate on a yearly basis to the entities for the green energy supplied by it for Renewable Energy beyond the renewable purchase obligation (RPO) for obligated entities notified by the government of India/APERC whichever is higher. The entities/consumers shall be given Green Stars Rating based on Renewable Energy procurement during the financial year as below:
 - 100 percent of consumption : 5 Green Stars
 - 75 percent of consumption : 4 Green Stars
 - 50 percent of consumption : 3 Green Stars

Accordingly, the distribution licensee shall issue a "**Green Stars Certificate**" to all the eligible entities within three months after the completion of that financial year. The certificate format shall be as approved by the Commission. Such green stars shall be also indicated in their monthly bills based on the month wise requisitions for renewable energy and total consumption of the month as per the percentages indicated above.

- ix. Non-obligated entities of any category including the domestic consumers at any voltage level may opt to procure the Renewable Energy as per the procedure stated above.
- x. The Distribution licensees shall give wide publicity at regular intervals during the year about the availability of RE power

through newspapers/media/interaction meetings with the industrial consumers based on their Renewable Power procurement status.

- xi. The Commission will undertake a review of the Green Tariff, the above modalities during Retail Supply Tariff proceedings from time to time].

4. Certificates under the Regulations of the Central Commission:

- 4.1 The procurement by the obligated entity(ies) of RECs issued under the Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2022 as amended from time to time, shall be subject to such directions as the Commission may issue from time to time.
- 4.2 The RECs purchased by the obligated entity(ies) from the power exchange, or the Purchase Certificate(s) issued by the State Agency in case of self-retention of RECs, shall be deposited by the obligated entity(ies) with the State Agency.
- 4.3 Notwithstanding the above, the State Agency can also independently verify the RECs purchased by the obligated entities from power exchanges, through the Renewable Energy Certificate Registry of India website, and consider the same towards fulfillment of their RPPO.

5. State Agency:

- 5.1 The State Agency shall function in accordance with the directions issued by the Commission and shall act in consistent with the procedures /rules laid down by the Central Agency for discharge of its functions under the Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2022 as amended from time to time.
- 5.2. The obligated entities shall submit the details of the compliance of RPPO for every month by the end of the succeeding month and for the

entire financial year including the last quarter by the end of July of the succeeding financial year to the State Agency.

- 5.3 The State Agency shall submit quarterly status to the Commission in respect of compliance of RPPO by the obligated entities in the format as stipulated by the Commission and may suggest appropriate action to the Commission if required, for compliance with the RPPO by the obligated entities.
- 5.4 The Commission may from time to time fix the remuneration and charges payable to the State Agency for discharge of its functions under these Regulations.
- 5.5 If the Commission is satisfied that the State Load Despatch Centre of the State of Andhra Pradesh is not able to discharge its functions satisfactorily, it may by general or special order, and by recording reasons in writing, designate any other agency to function as State Agency as it considers appropriate.

6. Eligibility and Registration for Certificates:

- 6.1 The eligibility and registration of certificates shall be governed by the Central Electricity Regulatory Commission (Terms and conditions for Renewable Energy Certificates for Renewable Energy generation) Regulations, 2022 as amended from time to time.
- 6.2 Determination of Pooled Cost of Power Purchase:
 - (1) For determination of Pooled Cost of Power Purchase for a particular financial year, the Distribution Licensee shall submit a petition for computation of Pooled Cost of Power Purchase to the Commission by 30th September of the succeeding financial year. Till the issue of order regarding the Pooled Cost of Power Purchase, the Pooled Cost of Power Purchase of the previous year shall continue to be valid as Provisional Pooled Cost of Power Purchase. After the issue of the order for the Pooled Cost of Power Purchase by the Commission, the difference between

the final Pooled Cost of Power Purchase and the Provisional Pooled Cost of Power Purchase shall be adjusted equally in the bills of the next two months or as decided by the Commission in the order determining the Pooled Cost of Power Purchase for that financial year.

- (2) The standard PPA approved in terms of Note (2) at clause 6 (b) of Regulation 1 of 2012 shall continue to be applicable.

7. Consequences of default:

- 7.1 If the obligated entity(ies) does not fulfil the RPPO as provided in clause (3) of these Regulations during any year, the State Agency, on being directed by the Commission, shall serve notices to the obligated entity(ies) to deposit into a separate fund, to be created and maintained by the State agency, such amount arrived on the basis of the shortfall in units of the RPPO and the maximum REC price traded through the power exchanges during the corresponding year including taxes and levies, besides barring permission to the defaulting entity(ies) from availing Power through Open Access;

Provided that the fund so created shall be utilised by the State Agency for purchase of certificates or as may be directed by the Commission;

Provided further that the Commission may empower an officer of the State Agency to procure from the Power Exchange the required number of certificates to the extent of the shortfall in the fulfilment of the obligations, out of the amount in the fund.

- 7.2 Where any obligated entity(ies) fails/ fail to comply with the obligation specified in clause (3) of these Regulations, it shall, in addition to the compliance of the directions under clause (7.1) above, be liable for penalty as may be decided by the Commission under section 142 of the Act;

8. Saving:

- 8.1 Anything done or action taken or purported to have been done in pursuance of the provisions of the earlier RPPO Regulation 1 of 2017

and its amendments shall be considered to be legal and valid.

8.2 Any rights and liabilities arising out of the earlier Regulation shall be settled within its framework.

9. Power to remove difficulties:

The Commission, suo-motu or on an application from any person generating electricity from renewable sources or an entity mandated under these Regulations to fulfil the RPPO, may review, add, amend or alter these Regulations and pass appropriate orders to remove any difficulty in exercising the provisions of these Regulations.

10. Miscellaneous:

10.1 Nothing in these Regulations shall be deemed to limit or otherwise affect the power of the Commission to make such orders as may be necessary to meet the ends of justice or to prevent abuse of process of the Commission.

10.2 Nothing in these Regulations shall bar the Commission from adopting a procedure that is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for doing so while dealing with such a matter or class of matters.

(By Order of the Commission)

Place: Hyderabad
Date: 29.09.2022

K. RAJA BAPAI AH,
Commission Secretary (i/c).