

**Chhattisgarh State Electricity Regulatory Commission**  
**Irrigation Colony, Shanti Nagar, Raipur**

Raipur, Dated September 18, 2013

No. 48/CSERC/2013 - Section 86(1)(e) of the Electricity Act, 2003 (the Act) mandates the State Commission to promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee.

The National Electricity Policy has emphasized urgent need to promote electricity generation based on renewable sources of energy. The Tariff Policy also provides that pursuant to the provisions of section 86(1)(e) of the Act, the SERCs shall fix a minimum percentage for purchase of energy from such sources taking into account availability of such sources in the region and its impact on retail tariffs.

Keeping the above in view, the Chhattisgarh State Electricity Regulatory Commission, in exercise of the power vested to the Commission under section 86(1)(e) of the Act read with section 181 of the Act, notifies Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2013, for the period 2013-2016.

**CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION  
(RENEWABLE PURCHASE OBLIGATION AND REC FRAMEWORK  
IMPLEMENTATION) REGULATIONS, 2013**

**1. Short Title, Extent and Commencement**

- 1.1 These Regulations shall be called the Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2013.
- 1.2 These Regulations shall extend to the whole of the State of Chhattisgarh.
- 1.3 These Regulations shall come into force from April 01, 2013.

**2. Definitions**

- 2.1 In these Regulations, unless the context otherwise requires:
  - I. "**Act**" means the Electricity Act, 2003 (36 of 2003), including amendments thereto;
  - II. "**Captive User**" shall have same meaning as defined in rule 3(2) of Electricity Rules 2005;
  - III. "**Central Agency**" means the agency as the Central Commission may designate from time to time;
  - IV. "**Central Commission**" means the Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act;
  - V. "**Certificate**" means the Renewable Energy Certificate (REC) issued by the Central Agency in accordance with the procedures prescribed by it and under the provisions specified

in the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010;

- VI. "**Commission**" means the Chhattisgarh State Electricity Regulatory Commission as referred in subsection (1) of section 82 of the Act;
- VII. "**Cogeneration**" means a process which simultaneously produces two or more forms of useful energy (including electricity)
- VIII. "**Existing RE Project**" means the renewable energy generating project declared under commercial operation from a date prior to April 01, 2013;
- IX. "**Floor price**" means the minimum price as determined by the Central Commission in accordance with Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable energy Certificate for Renewable Energy Generation) Regulations, 2010, as amended from time to time, at and above which the Certificate can be dealt in the power exchange;
- X. "**Forbearance price**" means the ceiling price as determined by the Central Commission in accordance with the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010, as amended from time to time, within which only the Certificate can be dealt in power exchange;

- XI. **"New RE Project"** means the renewable energy project whose date of commercial operation shall be on or subsequent to April 01, 2013;
- XII. **"Power Exchange"** means any exchange operating as the power exchange for electricity in terms of the order(s) issued by the Central Commission;
- XIII. **"Obligated Entity"** means the distribution licensee(s), captive user(s), open access consumer(s) including a open access consumer meeting part of energy from distribution licensee & part through open access (non RE consumption) in the State of Chhattisgarh, who have to mandatorily comply with renewable purchase obligation under these Regulations subject to fulfilment of conditions outlined under Regulation 3;
- XIV. **"Quantum of purchase"** means the share of electricity from renewable sources required to be purchased by obligated entity(s), expressed on a percentage of its total consumption (for distribution licensee, consumption means energy input at 33 KV or below level plus EHV sales), as specified in these regulations. The quantum would be the sum of all direct purchase from generating stations based on renewable sources.
- XV. **"Renewable Energy Sources"** means renewable sources such as small hydel, wind, solar, biomass including bagasse, bio fuel cogeneration, urban or municipal waste and such other sources as recognized or approved by MNRE;

- XVI. **"Small Hydel Plant (SHP)"** means hydel power station with an installed capacity 25 MW and below, which includes mini hydel and micro hydel plants.
- XVII. **"State"** means the State of Chhattisgarh.
- XVIII. **"State Agency"** means the agency designated by the Commission from time to time to act as the agency for accreditation and recommending the renewable energy projects for registration and to undertake functions under these Regulations;
- XIX. **"Year"** means a financial year.

**2.2** Words and expressions used and not defined in these Regulations but defined in the Act shall have the meanings assigned to them in the Act. Expressions used herein but not specifically defined in these Regulations or in the Act but defined under any law passed by a legislature and applicable to the electricity industry in the State shall have the meaning assigned to them in such law.

**3. Obligated Entities and Operating Period:**

The minimum percentage as specified under Regulation 4.3 shall be applicable to all Distribution Licensees in the State of Chhattisgarh as well as to open access consumers and captive users within the State of Chhattisgarh, subject to following conditions:

- I. Co-located and non co-located captive user(s) with connected load of 1 MW and above (or such other capacity as may be stipulated by order(s) of the Commission from time to time); shall be subjected to minimum percentage of Renewable Purchase Obligation (RPO) to

the extent of its captive consumption met through captive generating plant.

Provided that the end users, who do not full fill the requirements as captive users as defined in Electricity Rules 2005 in a financial year, shall be subjected to minimum percentage of Renewable Purchase Obligation (RPO) to the extent of its consumption met through such power plant.

- II. Open access consumer of 1 MW and above (procuring non RE power) not having a supply agreement with distribution licensee in whose area of supply the consumer is located but availing supply of energy under the open access regulations from a person other than the distribution licensee of the area under Section 42(2) of the Act shall be subjected to minimum percentage of RPO to the extent of its energy consumption of non RE power.

Open access consumer of 1 MW and above who has a supply agreement with distribution licensee in whose area of supply the consumer is located and also has supply agreement with a person other than the distribution licensee under Open Access regulations shall also be subjected to minimum percentage of RPO to the extent of his consumption (non RE consumption) met through such other sources source.

Obligated entities consuming power in any year to the extent of total RPO specified under Regulation 4 from their own fossil fuel based co-generation power plant shall be exempted from the RPO. In case of consumption of obligated entities from such co-generation power plant is less than the total RPO specified under Regulation 4.3, such obligated entities shall be required to fulfil the RPO.

Provided that the Commission may, by order(s), revise the minimum capacity referred to under sub-clause (I), sub-clause (II) and sub-clause (III) above from time to time.

Provided that quantum of renewable power procured/consumed by open access consumers and captive users shall be accounted for meeting RPO.

The RPO framework outlined under these Regulations shall commence from the April 01, 2013 and shall generally be applicable until March 31, 2016 (i.e., upto the financial year 2015-16). The RPO specified for the Financial Year 2015-16 shall be continued beyond 2015-16 till any revision is effected by the Commission in this regard.

**4. Quantum of Cogeneration and Renewable Purchase Obligation (RPO) for Obligated Entity**

4.1 Computation of total consumption for RPO for obligated entities shall be as under

<b>Sr.</b>	<b>Obligated Entity</b>	<b>Total Consumption</b>
1.	Distribution licensee(s)	Energy input at 33 KV level or below plus EHV sales
2.	Co-located captive users	Gross generation minus auxiliary consumption minus total energy injected into the grid
3.	Non co-located captive users	Energy injected into the grid by captive generating plant for captive use
4.	Co-located end users who do not qualify as captive user under Electricity Rules 2005	Gross generation minus auxiliary consumption minus total energy injected into the grid
5.	Open Access consumer	Energy injected into the grid by the seller for Open Access consumer

4.2 For meeting the RPO, renewable power purchases made by the obligated entities under long term power purchase agreements with the biomass based generating plants shall only be considered Purchases made by obligated entities from other renewable energy sources small hydel, wind, solar under long-term, medium-term and short-term arrangements, will be considered for meeting the RPO.

4.3 The defined minimum percentages of RPO are given below in the Table 1.

**Table 1: Minimum quantum of electricity in each category to be procured by Obligated Entity as percentage of total consumption**

Year	Solar	Non-Solar		Total
		Biomass /renewable energy based co-generation	Other RE (hydel, wind etc)	
2013-14	0.50%	3.75%	2.00%	6.25%
2014-15	0.75%	3.75%	2.25%	6.75%
2015-16	1.00%	3.75%	2.50%	7.25%

Provided further that the power purchases under the long term power purchase agreements (PPA) for the purchase of renewable energy sources already entered into by the distribution licensees shall be continued till their present validity, even if the total purchases under such agreements exceeds the percentage as specified herein above and any such excess purchase by distribution licensees will be adjusted to meet the obligation of next year.



Provided further that the distribution licensees shall prepare a plan for procurement of power from RE sources under its long-term power procurement plan so as to comply with minimum RPO target as stipulated above.

Provided that subject to the overall purchase obligation, the obligated entities may, for sufficient reasons and with the approval of the Commission, vary the percentage of purchase from one or more of renewable sources of energy and make good the shortfall in purchase from one source by purchase from another source only within non solar renewable energy sources.

- 4.4 Such power purchase shall be made at tariffs determined by the Commission from time to time for procurement of power by distribution licensees or price discovered through competitive bidding as per the guidelines prescribed by MNRE. Long term purchase already contracted by the distribution licensees as per the orders of the Commission for biomass-based power plants, small hydel plants or solar power plants in the State shall be reckoned for the purpose of the purchase obligation given above.
- 4.5 While indicating the quantum of purchase from renewable sources, the distribution licensee(s) shall indicate the sources from which purchase of the specified quantum is planned. The distribution licensee(s) shall as far as possible shall source the proposed quantum of electricity from renewable sources within their respective areas of supply. However, non availability of such sources in the distribution licensee's area will not be accepted as a ground for exemption from the purchase obligation or for reduction in the quantum required to be purchased as per these regulations.
- 4.6 Every "Obligated Entity" may meet its RPO target by way of its own generation or procurement of power from RE developer or

by way of power purchase from other licensee or by way of purchase of Renewable Energy Certificate (REC) or by way of combination of any of the above options.

- 4.7 Infirm power procured from renewable energy sources shall not be considered for meeting the RPO.
- 4.8 The obligated entity may ensure adequate payment security mechanism for purchase of energy from renewable sources.
- 4.9 The Commission shall specify the renewable purchase obligation for next control period after three years. The purchase obligation as under clause 4.3 above shall be valid till it is revised by the Commission.
- 4.10 Non-compliance of purchase obligation under clause 4.3 shall be treated as a violation of these regulations and punishable under the provisions of Section 142 of the Act.

## **5. Certificates under the Regulations of the Central Commission**

- 5.1 Subject to the terms and conditions contained in these Regulations, the Certificates issued under the Central Electricity Regulatory Commission's (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and its subsequent amendments shall be the valid instruments for the discharge of the mandatory obligations set out in these Regulations for the obligated entity to purchase electricity from renewable energy sources.

Provided that in the event of the obligated entity fulfilling the renewable purchase obligation by purchase of certificates, the obligation to purchase electricity from generation based on renewable energy other than solar can be fulfilled by purchase of non-solar certificates and the obligation to purchase electricity from generation based on solar as renewable energy source can

be fulfilled by purchase of solar certificates only during the control period.

- 5.2 Subject to such direction as the Commission may give from time to time, the obligated entity shall act consistent with the Central Electricity Regulatory Commission's (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and its subsequent amendments notified by the Central Commission with regards to the procurement of the certificates for fulfilment of the RPO under these Regulations.
- 5.3 The photocopy of Renewable Energy Certificates purchased by the obligated entity from the power exchange in terms of the regulations of the Central Commission mentioned in clause 5.1 and 5.2 of these Regulations shall be produced by the obligated entities to the State agency within 15 days of its purchase.

## **6. State Agency**

- 6.1 Chhattisgarh State Renewable Energy Development Agency (CREDA) is designated as State Agency for accreditation and recommending the renewable energy projects for registration. CREDA shall undertake functions under these Regulations.
- 6.2 The State Agency shall function in accordance with the directions issued by the Commission and shall act in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and its subsequent amendments or enactments.
- 6.3 The State Agency shall develop suitable protocol for collection of information from various sources such as renewable energy generating companies, obligated entities, SLDC, chief electrical

inspector etc., on regular basis and compile such information to compute the compliance of RPO target by such Obligated Entities.

- 6.4 The summary statement of RE procurement and RPO compliance by different Obligated Entities shall be published by the State Agency on cumulative basis quarterly by 15<sup>th</sup> of next month on its website.
- 6.5 The State Agency shall submit quarterly status by 15<sup>th</sup> of next month to the Commission in respect of compliance of renewable purchase obligation by the obligated entities in the format as stipulated by the Commission and may suggest appropriate action to the Commission, if required, for compliance of the renewable purchase obligation.
- 6.6 The Commission may from time to time fix the remuneration and charges payable to the State Agency by an order towards discharge of its functions under these Regulations if required.
- 6.7 If the Commission observes that the State Agency 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.
- 6.8 The Commission may by an Order assign any other responsibility to the State agency as it deems fit for the discharge of its function under these regulations.

## **7. Distribution Licensee(s)**

- 7.1 Each distribution licensee shall indicate, along with sufficient proof thereof, the estimated quantum of purchase from renewable energy sources for the ensuing year in tariff/ annual performance review petition in accordance with Regulations notified by the Commission. The estimation of quantum of renewable energy purchase for the ensuing year(s) in Tariff Order shall be in accordance with clause 4.1 and 4.3 of these

Regulations. In the event the actual energy consumption ( as per clause 4.1 and 4.3) by the distribution licensee being different from that as estimated in the Tariff Order by the Commission, the RPO in MUs shall be deemed to have been modified in accordance with percentages fixed in clause 4.3 of these Regulations.

**Illustration:**

Suppose if estimated EHV sales of the distribution licensee A is 2790 MU and energy input at 33 KV is 19950 MU for the year 2013-14. RPO is required to be estimated from the quantum 22740 MU. From these estimated figures, the solar obligation estimated is 113.7 MU (i.e. 0.5%), biomass obligation is 852.75 MU (i.e. 3.75%) and other RE obligation estimated is 454.8 MU (i.e. 2%). Now after the end of year 2013-14, if the actual EHV sales is 2700 MU and energy input at 33 KV is 22000 MU, which is at variance from figures as estimated in the Tariff Order for the year 2013-14, RPO will be derived from quantum 24700 MU. Now according to the actual figures, the modified solar, biomass obligation and other RE obligation for year 2013-14 will be 123.5 MU, 926.25 MU and 494 MU respectively.

- 7.2 Each distribution licensee shall have to submit necessary details regarding total purchases and consumption of electricity and purchase of energy from renewable sources for fulfilment of RPO on monthly basis to the State Agency.
- 7.3 Any excess purchase of renewable energy or the REC procured by distribution licensee(s) for meeting the RPO in any year shall be considered for meeting the RPO for the next year.
- 7.4 If the distribution licensee fails to fulfil the minimum quantum of purchase from renewable energy sources i.e. RPO, it shall be liable for action as per clause 9 of these Regulations.

## **8. Captive User(s) and Open Access Consumer(s)**

- 8.1 The quantum of RPO mentioned in clause 4.3 of these Regulations shall be applicable to captive user(s) and open access consumer(s) from the April 01, 2013. Captive user(s) and open access consumer(s) may fulfil its RPO through the Renewable Energy Certificates as provided in clause 4 above. Provided that captive user(s) and open access consumers consuming power in any year to the extent of RPO specified under Regulation 4.3 from fossil fuel based co-generation power plant shall be exempted from the RPO.
- 8.2 Every Captive user(s) and open access consumer(s) shall have to submit necessary details regarding total consumption of electricity and purchase of energy from renewable sources for fulfilment of RPO on monthly basis to the State Agency.
- 8.3 Any excess purchase of renewable energy or the REC procured by captive user(s) and open access consumer(s) for meeting the RPO in any financial year shall be considered for meeting the RPO for the next financial year.
- 8.4 If the Captive user(s) and Open Access consumer(s) are unable to fulfil the criteria, the shortfall of the targeted quantum would attract compensation as per clause 9 of these Regulations.

## **9. Consequences of default**

- 9.1 If an obligated entity does not fulfil the renewable purchase obligation as provided in these Regulations during any financial year, the Commission may direct the Obligated Entity to maintain a separate fund for such amount as the Commission may determine on the basis of the shortfall in units of RPO and the forbearance price decided by the Central Commission.
- Provided that the fund so created shall be utilised, as may be directed by the Commission.

Provided that the obligated entities shall not be authorized to use the fund created in pursuance of the above, without prior approval of the Commission.

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

Provided also that the obligated entity shall be in breach of its RPO Obligation, if it fails to deposit the amount directed by the Commission within specified time from the communication of the direction.

Provided that in case of any genuine difficulty in complying with the renewable purchase obligation because of non-availability of power from renewable energy sources or the RECs, the obligated entity can approach the Commission to carry forward the compliance requirement to the next year only.

Provided further that where the Commission has consented to carry forward of compliance requirement, the provision regarding creation of such fund as specified above shall not be applicable.

## **10. Priority for Grid Connectivity**

10.1 Any person generating electricity from renewable energy sources, irrespective of installed capacity, shall have priority for open access, connectivity with distribution system or transmission system as the case may be. On an application from such person, the transmission licensee or distribution licensee, as the case may be, shall provide appropriate interconnection facilities, as far as feasible, before commissioning of the renewable energy project. Such interconnection shall follow the

grid connectivity standards as specified in the Indian Standard Grid Code, State Grid Code and/or the manner prescribed by the Central Electricity Authority.

## **11. Renewable Energy Pricing**

11.1 All the new renewable energy projects commissioned during the Control Period as specified above, shall have an option of following either the tariff structure and other conditions as stipulated in the Chhattisgarh State Electricity Regulatory Commission (Terms and conditions for determination of generation tariff and related matters for electricity generated by plants based renewable energy sources) Regulations, 2012 and its review/amendments from time to time and/or adopt the REC mechanism for pricing of the electricity generated from the project.

Provided that such a renewable energy generating plant having entered into a long term power purchase agreement for sale of electricity at a preferential tariff shall not, in case of premature termination of the agreement, be eligible for participating in the Renewable Energy Certificate (REC) scheme for a period of three years from the date of termination of such agreement or till the scheduled date of expiry of power purchase agreement whichever is earlier, if any order or ruling is found to have been passed by an Appropriate Commission or a competent court against the generating company for material breach of the terms and conditions of the said power purchase agreement.

Provided that such projects that opt for either preferential tariff or REC mechanism or the mix there of, shall have to continue with the selected pricing mechanism for the entire Tariff Period or until validity of PPA; whichever is later, as outlined under Chhattisgarh State Electricity Regulatory Commission (Terms and conditions for determination of generation tariff and related



matters for electricity generated by plants based renewable energy sources) Regulations, 2012 and its review/amendments from time to time.

Provided further that such new renewable energy project shall exercise its choice for selection of appropriate Pricing Mechanism prior to execution of the PPA with distribution licensee or with open access consumer, as the case may be.

11.2 The REC mechanism entails pricing of two components, namely, electricity component and renewable energy component or REC component representing environmental attributes of renewable energy generation. For the purpose of the Operating Period from FY 2013-14 to FY 2015-16, the effective electricity component price for the year shall be equivalent to Pooled Cost of power purchase excluding renewable energy of the host Utility for the previous year in whose area of jurisdiction such RE generation project is situated, whereas, the price of RECs shall be as discovered in the Power Exchanges.

Explanation - for the purpose of this Regulation, "Pooled Cost of Power Purchase" means the weighted average pooled price at which the distribution licensee has purchased the electricity including cost of self generation, if any, in the previous year from all the long-term and short-term energy suppliers, but excluding those based on renewable energy sources, as the case may be.

Provided that the Central Commission may, in consultation with the Central Agency and Forum of Regulators, from time to time provide for the floor price and forbearance price separately for solar and non-solar RECs (renewable energy component);

Provided further that, with the progressive development of the electricity sector, the pricing methodologies for Electricity

component and REC shall be reviewed at periodic intervals as may be considered by the Commission.

- 11.3 Tariff rate, tariff structure and other conditions for existing renewable energy project(s) have already been covered under respective renewable energy Tariff Orders issued by the Commission and the same shall continue to be operative as amended from time to time during the Operating Period, FY 2013-14 to FY 2015-16.
- 11.4 The consumers procuring power from RE sources through open access route shall be required to pay cross-subsidy surcharge as per condition of the open access regulations as specified by the Commission. However, no banking facility shall be provided for supply (third party sale) from renewable energy sources through open access.

## **12. Power to remove difficulties**

- 12.1 If any difficulty arises in giving effect to these Regulations, the Commission may, of its own motion or otherwise, by an order and after giving a reasonable opportunity to those likely to be affected by such order, make such provisions, not inconsistent with these regulations, as may appear to be necessary for removing the difficulty.

**By Order of the Commission**

**(P. N. Singh)**  
**Secretary**