

**Consolidated Chhattisgarh State Electricity Regulatory Commission
(Renewable Purchase Obligation and REC framework Implementation)
Regulations, 2011**

(Consolidated up to Notification dated 18.09.2014)

Name of Regulation	Regulation Number	Notification Date
Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2011	36/CSERC/2011	04-03-2011
Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) (First Amendment) Regulations, 2013	49/RPO-REC/2013	21-05-2013
Corrigendum - Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) (First Amendment) Regulations, 2013	61/CSERC/2013	18-09-2014

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

Raipur, Dated March 04, 2011

No. 36/CSERC/2011 - 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 such 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.

Ministry of New & Renewable Energy (MNRE), Govt. of India has developed conceptual framework for Renewable Energy Certificate (REC) mechanism that will facilitate inter-State transactions based on electricity generation from Renewable Energy (RE) sources which will enable the obligated entities to fulfil their obligation to purchase power generated from renewable energy sources and also specified provision of solar & non-solar REC. Further, based on the above, Forum of Regulators (FOR) has circulated model regulations for REC framework to be considered by State Commissions.

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, hereby makes the following regulations regarding renewable purchase obligation and implementation of REC framework.

**CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION
(RENEWABLE PURCHASE OBLIGATION AND REC FRAMEWORK
IMPLEMENTATION) REGULATIONS, 2011**

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, 2011.
- 1.2 These Regulations shall extend to the whole of the State of Chhattisgarh.
- 1.3 These Regulations shall come into force from the date of notification in the Chhattisgarh Gazette (Rajpatra).

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 Electricity Regulatory Commission as referred in subsection (1) of section 82 of the Act;
- VII. "**Existing RE Project**" means the renewable energy project whose date of commercial operation (COD) falls prior to date of notification of these Regulations;
- VIII. "**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;
- IX. "**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;

- X. **"New RE Project"** means the renewable energy project whose date of commercial operation shall be on or subsequent to the date of notification of these Regulations;
 - XI. **"Power Exchange"** means any exchange operating as the power exchange for electricity in terms of the order(s) issued by the Central Commission;
 - XII. **"Obligated Entity"** means the distribution licensee(s), user(s) owning captive power plant(s), open access consumer(s) including a open access consumer meeting part of energy from distribution licensee & part through open access 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;
 - XIII. **"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, as specified in these regulations. The quantum would be the sum of all direct purchase from generating stations based on renewable sources.
 - XIV. **"Renewable Energy Sources"** means renewable sources such as hydel, wind, solar, biomass including bagasse, bio fuel cogeneration, urban or municipal waste and such other sources as recognized or approved by MNRE;
 - XV. **"Small Hydel Plant (SHP)"** means hydel power station with an installed capacity upto and including 25 MW, which includes mini hydel and micro hydel plants.
 - XVI. **"State"** means the State of Chhattisgarh.
 - XVII. **"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;
 - XVIII. **"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. Expressions used herein but not specifically defined in the Regulations or in the Act or any Law passed by a competent legislature shall have the meaning as is generally assigned to them in the electricity industry.
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. Any person who is a captive user (from other than renewable energy based power generating plant) 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 consumption met through such captive source.

- II. Any person having a contract of not less than 1 MW and who consumes electricity procured from other than renewable energy source based power generation through open access as per Section 42(2) of the Act or co-located shall be subjected to minimum percentage of RPO to the extent of its captive consumption. Energy purchased through open access or through co-located renewable energy source based power generating plants shall be accounted for energy under RPO.
- III. Any open access consumer who also avails part of its power requirement from distribution licensee shall also be subjected to minimum percentage of RPO to the extent of his consumption met through such open access source.

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

The RPO framework outlined under these Regulations shall commence from the date of notification of these Regulations and shall generally be applicable until March 31, 2013 (i.e., upto the financial year 2012-13). The RPO specified for the Financial Year 2012-13 shall be continued beyond 2012-13 till any revision is effected by the Commission in this regard.

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

- 4.1 Licensee(s) shall purchase a minimum percentage of their total consumption of electricity from renewable energy sources, during a financial year in their respective areas of distribution, from the power stations generating electricity from various renewable sources of energy.
- 4.2 Similarly, Captive user(s) and Open Access consumer(s) coming under the definition of obligated entity shall purchase a minimum percentage of their total consumption of electricity from renewable energy sources, during a financial year
- 4.3 The defined minimum percentages of RPO are given below in the Table 1.

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

Year	Solar	Non Solar			Grand Total
		Biomass	Other RE (hydel, wind etc)	Total	
2010-11	0.25%	3.75%	1.00%	4.75%	5.00%
2011-12	0.25%	3.75%	1.25%	5.00%	5.25%
2012-13	0.50%	3.75%	1.50%	5.25%	5.75%

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 for the year 2010-11. In the subsequent years (after year 2010-11), the obligated entities may make good the shortfall in purchase from one source to another source only within non solar renewable energy sources.

Provided further that such obligation to purchase renewable energy shall be inclusive of the purchases, if any, from renewable energy sources already being made by the obligated entity concerned.

Provided also that the power purchases under the power purchase agreements (PPA) for the purchase of renewable energy sources already entered into by the distribution licensees shall continue to be made till their present validity, even if the total purchases under such agreements exceed the percentage as specified herein above.

Provided further that the Distribution Licensees shall include the plan for procurement of power from RE sources under its long-term power procurement plan to comply with minimum RPO target as stipulated above.

- 4.4 Such purchase shall be made at tariffs determined by the Commission from time to time. Purchase already contracted by the 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 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 While contracting new sources, priority shall be given to the date of commercial operation of the generating stations.
- 4.8 The obligated entity may ensure adequate payment security mechanism for purchase of energy from renewable sources.
- 4.9 The Commission shall review the purchase obligation from renewable sources of obligated entity(s) 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 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 except for the year 2010-11.

- 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 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 (duly attested by any chartered account) 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 Commission within 15 days of its purchase.

6. State Agency

- 6.1 An agency designated by the Commission is the State Agency for accreditation and recommending the renewable energy projects for registration 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.
- 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 15th of next month on its website.
- 6.5 The State Agency shall submit quarterly status by 15th 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 for 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.

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 estimated quantum of renewable energy purchase shall be in accordance with clause 4.3 of these Regulations of the approved power purchase quantity for the ensuing year(s). In the event of the actual consumption in the license area being different from that approved 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. If the distribution licensee is unable to fulfil the obligation, the shortfall of the specified quantum of that year would be added to the specified quantum for the next year.

- 7.2 If the distribution licensee fails to fulfil the minimum quantum of purchase from renewable energy sources, 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 date as would be notified in the Official Gazette. Captive user(s) and open access consumer(s) may fulfil its RPO through the Renewable Energy Certificates as provided in clause 4 above.
- 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 quarterly basis to the State Agency.
- 8.3 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 year and also does not purchase the RECs, 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 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.

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.

¹[Provided any excess purchase/ shortfall of renewable energy or the REC procured by obligated entities for meeting the RPO in the obligation period shall be considered for meeting the RPO for the succeeding year]¹.

10. Non Availability of Renewable Energy Certificate

- 10.1 In the event of non compliance of the RPO by distribution licensees by any of the modalities as specified above as per the orders of the Commission, from non-solar renewable energy plants or solar power plants in the State, the distribution licensee whose purchase of renewable energy is maximum during the year shall be compensated by other distribution licensees so that percentage of renewable energy consumption by all the distribution licensees functioning in the State become equal.

Explanation – for the purpose of this Regulation, the compensation shall mean the sharing of differential of average cost of RE power purchase and average cost of Non RE power purchase of distribution licensee, which is to be compensated for the year under consideration calculated as per following example. For the example the year under consideration for RPO has been taken as year 2010-11;

Name of the licensee	Annual energy consumption of FY 10-11, MUs	Applicable RPO to be met including solar & non solar for FY 10-11, MUs	RE actual purchased during FY 10-11, Mus	RPO actually met for year 2010-11 during FY 2011-12, MUs	Total actual RPO purchase for the FY 2010-11 at the end of FY 2011-12, MUs	% RPO of year 2010-11 met by end of year 2011-12	Eq. MUs for differential cost computation	Shortfall of actual purchase of RE considering actual average RPO, MUs
	A	B= A*5%	C	D	E= C+D	F= E/A	G= A* % of ($\Sigma E/\Sigma A$)	H=G- E
Licensee -A	15000	750	600	5	605.0	4.0%	585.5	-19.5
Licensee -B	700	35	4	7	11.0	1.6%	27.3	16.3
Licensee -C	210	10.5	2	3	5.0	2.4%	8.2	3.2
Total	15910	795.5	606	15	621.0	3.9%	621.00	

Annual energy consumption by three licensees for the year 2010-11 is 15910 MUs (total of three licensees A, B & C) and total actual RE purchased by all the licensees for the year 2010-11 is 621 MUs i.e. together all the licensees have met 3.9% RPO in the State, where as RPO percentage target for the Year 2010-11 is 5%. Individually licensee-A, B & C could finally make RPO as 4%, 1.6% & 2.4% respectively for the year 2010-11 by all the modes of RE purchase as specified above, which is well below the RPO target.

Though none of licensee could meet the RPO for the year 2010-11, it will be proper that licensee-A, which has procured more than average RPO purchased during the year, should be paid differential cost by other licensee(s) who met RPO lesser than average during the year (3.9%). The sharing obligation will be (-)19.5 MUs for licensee-A, 16.3 MUs for licensee-B and 3.2 MUs for licensee-C. Licensee-B will pay to licensee –A equivalent to 16.3 MUs at the rate of differential of average cost of RE

power purchase and average cost of Non RE power purchase by licensee – A for year under consideration i.e. 2010-11. Similarly licensee-C will pay for 3.2 MUs to licensee-A at the rate of differential of average cost of RE power purchase and average cost of Non RE power purchase by licensee – A for year under consideration i.e. 2010-11.

Further if average cost of RE purchase for the year 2010-11 in respect of distribution licensee- A is Rs. 5.40 per unit and average cost of non RE purchase by distribution licensee- A is Rs. 3.90 per unit then differential cost will be Rs. 1.50 per unit (5.40-3.90). Licensee- B will pay to licensee –A Rs. 244.83 Lakh (16.3 MU X 1.5 Rs./kWh). Similarly licensee –C will pay to licensee –A Rs. 47.95 Lakh (3.2 MU X 1.5 Rs./kWh). In case the average cost of RE purchase in respect to licensee-A is lesser than the average cost of non-RE purchase, then no compensation will be payable to licensee-A by licensee-B and licensee-C.

The above payments will be made as per the directions of the Commission and will be considered in Annual Revenue Requirement of concerned licensee.

11. Priority for Grid Connectivity

- 11.1 Any person generating electricity from renewable energy sources, irrespective of installed capacity, shall have priority for open access, connectivity with distribution system or grid as the case may be. On an application from such person, the transmission licensee or distribution licensee 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.

12. Renewable Energy Pricing

- 12.1 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 on non-conventional sources of energy) Regulations, 2008 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 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 thereof, 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 on non-conventional sources of energy) Regulations, 2008 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.

- 12.2 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 2010-11 to FY 2012-13, 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 Exchange.

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 appropriate Commission.

- 12.3 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 2010-11 to FY 2012-13.
- 12.4 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.

13. Power to remove difficulties

The Commission may either suo motu or on an application from any person, review these regulations and pass appropriate orders to remove any difficulty in exercising the provisions of these regulations.

14. Power to Amend

The Commission may from time to time add, vary, alter, modify or amend, in provisions of these regulations and pass appropriate orders.

15. Repeal

After issuance of these regulations the previous regulations namely Chhattisgarh State Electricity Regulatory Commission (Procurement of Power from renewable sources of energy by distribution licensees) Regulations, 2008 shall stand repealed automatically. However Power Procurement Agreement(s) already executed as per previous Regulations of 2008 shall be further governed by these Regulations.

By Order of the Commission

(N.K. Rupwani)
Secretary