

**MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
MUMBAI**

**MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
(RENEWABLE PURCHASE OBLIGATION, ITS COMPLIANCE AND
IMPLEMENTATION OF REC FRAMEWORK) REGULATIONS, 2010**

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ELECTRICITY ACT, 2003.

No.MERC/Legal/2010/483 In exercise of powers conferred under sections 61, 66, 86(1)(e) and 181 of the Electricity Act, 2003 and all other powers enabling it in this behalf, and after previous publication, the Maharashtra Electricity Regulatory Commission hereby makes the following Regulations for the Renewable Purchase Obligation and its compliance:

1 Short title, extent and commencement

- 1.1 These Regulations may be called the Maharashtra Electricity Regulatory Commission (Renewable Purchase Obligation, its compliance and REC framework Implementation) Regulations, 2010.
- 1.2 These Regulations shall extend to the whole of the State of Maharashtra and to all matters within the jurisdiction of the State Commission.
- 1.3 These Regulations shall come into force from the date of their publication in the Official Gazette.

2 Definitions

- 2.1 In these Regulations unless the context otherwise requires:
- (a) "**Act**" means the Electricity Act, 2003 (36 of 2003), including amendments thereto;
- (b) "**Captive User**" means the person or member within the meaning of Section 2(8) of the Act being the end user of the electricity generated in Captive Generating Plant primarily for their own use and the term "captive use" shall be construed accordingly.
- (c) "**Central Agency**" means the agency as the Central Commission may designate from time to time;
- (d) "**Central Commission**" means the Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act;
- (e) "**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;
- (f) "**State Commission**" means the Maharashtra Electricity Regulatory Commission as referred in subsection (1) of section 82 of the Act;
- (g) "**Existing RE Project**" means the renewable energy project whose date of commissioning falls prior to date of notification of these Regulations;
- (h) "**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;

- (i) **"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;
- (j) **"Inter-connection Point"** shall mean the interface point of renewable energy generating facility with the transmission system or distribution system, as the case may be:
 - (i) in relation to wind energy projects and Solar Photovoltaic Projects, inter-connection point shall be line isolator on outgoing feeder on HV side of the pooling sub-station;

Provided the Pooling Sub-station shall mean the sub-station at project site of the windfarm or solar power plant, as the case may be, and shall constitute step-up transformer and associated switchgear, and to the LV side of which, multiple (more than one) generating unit(s) (i.e. wind turbine generators or solar PV modules/arrays/inverter units) are connected.
 - (ii) in relation to mini/micro hydro power, small hydro power, biomass power, non-fossil fuel based co-generation power projects and solar thermal power projects, the inter-connection point shall be line isolator on outgoing feeder on HV side of generator transformer.
- (k) **"MNRE"** means the Ministry of New and Renewable Energy, Government of India;
- (l) **"New RE Project"** means the renewable energy project whose date of commissioning shall be subsequent to the date of notification of these Regulations;
- (m) **"Obligated Entity"** means the distribution licensees, users owning captive power plants, and open access consumers in the State of Maharashtra, who have to mandatorily comply with renewable purchase obligation under these Regulations subject to fulfilment of conditions outlined under Regulation 5;
- (n) **"Open Access Consumer"** means the person availing power using open access pursuant to MERC (Distribution Open Access) Regulations, 2005 as amended from time to time and in force or MERC (Transmission Open Access) Regulations, 2005 as amended from time to time and in force, as the case may be.
- (o) **"Power Exchange"** means any exchange operating as the power exchange for electricity in terms of the orders issued by the Central Commission;
- (p) **"Preferential Tariff"** means the tariff fixed by the State Commission for sale of energy from a generating station based on renewable energy sources to a distribution licensee in accordance with Maharashtra Electricity Regulatory Commission (Terms and Conditions for determination of RE Tariff) Regulations, 2010;

- (q) **"Renewable Energy Sources"** means renewable sources such as mini hydro, micro hydro, small hydro, wind, solar, biomass including bagasse, bio fuel cogeneration, urban or municipal waste and such other sources as recognized or approved by MNRE;
- (r) **"State Agency"** means the agency to be designated by the State 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;
- (s) **"Year"** means a financial year.

2.2 Words and expressions used in these Regulations and not defined under these Regulations but defined in the Act or the Regulations issued by the Central Commission or Regulations issued by the State Commission, shall have the same meaning assigned to them respectively in the Act or such Regulations issued by the Central Commission or Regulations issued by the State Commission.

PART A: GENERAL

3 Scope of regulation and extent of application

- 3.1 These Regulations shall apply in all cases where the State Commission is to promote co-generation from renewable sources and generation of electricity from renewable sources and is to specify a percentage for procurement of energy generated from such sources on the basis of total consumption of electricity within the area of a distribution licensee.
- 3.2 These Regulations shall apply to:
 - (a) Distribution Licensee(s) within the State of Maharashtra
 - (b) Captive User(s) within the State of Maharashtra subject to conditions outlined under Regulation 5
 - (c) Open Access Consumer(s) within the State of Maharashtra subject to conditions outlined under Regulation 5

PART B: RENEWABLE ENERGY PURCHASE OBLIGATION

4 Eligible renewable energy sources

- 4.1 For the purpose of this Regulation, energy generation from all types of renewable energy sources as recognised or approved by the MNRE, shall be considered.

Provided that any new technology could be qualified as 'renewable', only after the State Commission has approved the technology based on the approval of the MNRE.
- 4.2 The Eligible renewable energy sources shall include without limitation the following :
 - (a) Non-fossil fuel (including bagasse) based co-generation projects (both, qualifying and non-qualifying co-generation projects)

- (b) Wind Energy
- (c) Biomass Power based on Rankine cycle technology
- (d) Small Hydro, Mini Hydro, Micro Hydro Power
- (e) Municipal Waste based Power
- (f) Solar Power
- (g) Any other source as may be recognised or approved by State Commission / MNRE

Provided that generation from grid connected renewable energy sources with installed capacity of 250 kW and above or such other minimum capacity as may be specified by Central Commission from time to time shall alone be considered as eligible renewable energy sources;

Provided further that the generation from grid connected renewable energy sources with installed capacity below 250 kW or such other minimum capacity as specified by Central Commission from time to time to qualify for eligible RE sources shall be considered as 'eligible RE source' provided suitable metering and communication arrangement with State Load Despatch Centre is established by such renewable energy project;

Provided further that generation from existing renewable energy generation projects commissioned under earlier policy and regulatory regime shall continue to be recognised as eligible renewable energy sources for the purpose of Renewable Purchase Obligation (RPO) compliance over the Operating Period as outlined under Regulation 6;

- 4.3 Procurement of Renewable Energy Certificates issued for renewable energy generation outside the State of Maharashtra as well as Renewable Energy Certificates issued for renewable energy generation within the State of Maharashtra shall be considered as an eligible instrument for the purpose of RPO compliance by Obligated Entities within the State of Maharashtra over the Operating Period as outlined under Regulation 6.

5 Obligated Entities

- 5.1 The minimum percentage as specified under Regulation 7.1 shall be applicable to all Distribution Licensees in the State of Maharashtra as well as to open access consumers and captive users within the State of Maharashtra, subject to following conditions:
- (a) Any person who owns a grid connected Captive Generating Plant with installed capacity of 1 MW and above (or such other capacity as may be stipulated from time to time) and consumes electricity generated from such plant for his own use; shall be subjected to minimum percentage of RPO to the extent of his consumption met through such captive source.
 - (b) Any person having a contract demand of not less than 1 MVA and who consumes electricity procured from conventional fossil fuel based generation through open access as per Section 42 (2) of the Act shall be subjected to minimum percentage of RPO to the extent of his consumption met through such open access source.

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

Provided further that condition under sub-clause (a) above, shall not be applicable in case of Standby (or Emergency back-up) Captive Generating Plant facilities.

6 Operating Period

- 6.1 The RPO framework stipulated under these Regulations shall commence from the date of notification of these Regulations and shall be valid until March 31, 2016 (i.e., upto the financial year 2015-16).

7 Renewable Purchase Obligation (RPO) target

- 7.1 Every 'Obligated Entity' shall procure electricity generated from eligible renewable energy sources at the percentages as per the following schedule:

Year	Minimum Quantum of purchase (in %) from renewable energy sources (in terms of energy equivalent in kWh)		
	Solar	Non-Solar (other RE)	Total
2010-11	0.25%	5.75%	6.0%
2011-12	0.25%	6.75%	7.0%
2012-13	0.25%	7.75%	8.0%
2013-14	0.50%	8.50%	9.0%
2014-15	0.50%	8.50%	9.0%
2015-16	0.50%	8.50%	9.0%

Provided that Distribution Licensee(s) shall meet 0.1% per year of its Non-Solar (other RE) RPO obligation for the period from FY 2010-11 to FY 2012-13 and up to 0.2% of its Non-solar (other RE) RPO obligation for the period from FY 2013-14 to FY 2015-16 by way of purchase from Mini Hydro or Micro Hydro power project.

Provided further that the Distribution Licensee 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.

- 7.2 Every 'Obligated Entity' may meet its RPO target by way of 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 or by way of combination of any of the above options.

Provided further that procurement of RE power generated within the State by Distribution Licensee at rate other than rate approved by the State Commission directly from generator or from trader shall not be considered as eligible quantum for fulfilment of renewable purchase obligation of such distribution licensee.

8 Certificates under the Regulations of the Central Commission

- 8.1 Subject to the terms and conditions contained in these Regulations, the Certificates issued under the Central Electricity Regulatory Commission (Terms and conditions for recognition and issue of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 shall be valid instruments for the discharge of the mandatory obligations set out in these Regulations for the obligated entities 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 solar as renewable energy source can be fulfilled by purchase of solar certificates only, and the obligation to purchase electricity from generation based on renewable energy other than solar can be fulfilled by purchase of non-solar certificates.

- 8.2 Subject to such direction as the State Commission may give from time to time, the obligated entity shall act consistent with the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 notified by the Central Commission in regard to the procurement of the Certificates for fulfillment of the Renewable Purchase Obligation under these Regulations.
- 8.3 The Certificates purchased by the Obligated Entities from the power exchange in terms of the regulation of the Central Commission mentioned in section 8.1 of this Regulation shall be deposited by the Obligated Entities with the State Commission in accordance with the detailed procedure issued by the Central Agency.

9 State Agency

- 9.1 The State Commission shall designate an agency as State Agency for accreditation and recommending the renewable energy projects for registration and to undertake functions under these Regulations.
- 9.2 The State Agency shall function in accordance with the directions issued by the State Commission and shall act in a manner consistent with the procedures and rules laid by Central Agency for discharge of its functions under the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010.
- 9.3 The State Agency shall devise appropriate protocol for collection of information from various sources such as renewable energy generating companies, obligated entities, SLDC, etc., on regular basis and compile such information to compute the compliance of RPO target by such Obligated Entities.
- 9.4 The summary statement of RE procurement and RPO compliance by different Obligated Entities shall be published by the State Agency on cumulative basis every month on its website.
- 9.5 The information shall cover RE procurement by each Obligated Entity comprising of renewable energy procurement under preferential tariff route as well as renewable energy procurement through REC mechanism.
- 9.6 The State Agency shall submit quarterly status to the State Commission in respect of compliance of renewable purchase obligation by the Obligated Entities in the

format stipulated by the State Commission and may suggest appropriate action to the State Commission if required for compliance of the renewable purchase obligation.

- 9.7 The State Commission may from time to time fix the fees and charges payable to the State Agency for discharge of its functions under these Regulations.
- 9.8 If the State Commission is satisfied 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.

10 Distribution Licensee(s)

- 10.1 Each Distribution Licensee shall indicate, along with sufficient proof thereof, the estimated quantum of purchase from renewable energy sources for each year of the Operating Period under the Business Plan as well as under MYT Petition in accordance with Regulations notified by the State Commission and accordingly shall enter into long term arrangement to meet its RPO obligations.
- 10.2 The estimated quantum of renewable energy purchase shall be in accordance with clause 7.1 of these Regulations corresponding to the approved power purchase quantity for each year of the Operating Period.
- 10.3 The Distribution Licensees shall also furnish the summary statement of energy procured from different renewable energy sources on monthly basis to the State Agency.
- 10.4 At the end of each financial year, each Distribution Licensee shall submit a detailed statement of energy procurement from various RE sources, duly certified by the auditors.
- 10.5 If any Distribution Licensees is unable to fulfil the obligation, they shall be liable to pay RPO Regulatory Charges as specified in clause 12.1 of these Regulations.

11 Captive User(s) and Open Access Consumer(s)

- 11.1 Subject to fulfilment of conditions outlined under Regulation 5.1, every Captive User and Open Access consumer shall submit necessary details regarding total consumption of electricity and power purchase from renewable energy sources towards fulfilment of its RPO on monthly basis to the State Agency.
- 11.2 Captive User(s) and Open Access Consumer(s) shall purchase renewable energy as stated in Regulation 7.1 and accordingly shall enter into long term arrangement to meet its RPO obligations.
- 11.3 If the Captive User(s) and Open Access consumer(s) are unable to fulfil their obligation, they shall be liable to pay RPO Regulatory Charges as specified in Regulation 12.1.

Provided further that captive user(s) consuming power from grid connected fossil fuel based co-generation plants, are exempted from applicability of RPO target and other related conditions as specified in these Regulations.

- 11.4 Captive/Open Access consumer(s)/User(s) may fulfil their RPO through procurement of the Renewable Energy Certificate as provided in Regulation 8.

- 11.5 Subject to fulfilment of conditions for captive usage and eligibility criteria as outlined under Regulation 5.1 (a), the sale of surplus electricity from a RE based captive power project over and above the captive consumption will qualify for availing RECs as provided in Regulation 8.

12 RPO Regulatory Charges

- 12.1 If the Obligated Entity fails to comply with the RPO target as provided in these Regulations during any year and fails to purchase the required quantum of RECs, the State Commission may direct the Obligated Entity to deposit into a separate fund, to be created and maintained by such Obligated Entity, such amount as the Commission may determine on the basis of the shortfall in units of RPO, RPO Regulatory Charges and the Forbearance Price decided by the Central Commission; separately in respect of solar and non-solar RPO:

Provided that RPO Regulatory Charges shall be equivalent to the highest applicable preferential tariff during the year for solar or non-solar RE generating sources, as the case may be, or any other rate as may be stipulated by the State Commission;

Provided further that the fund so created shall be utilised, as may be directed by the State Commission.

13 Monitoring and Implementation Framework

- 13.1 A Monitoring Committee shall be constituted under the aegis of Grid Co-ordination Committee (GCC), within thirty (30) days of notification of these Regulations. Every member of GCC shall have representation on the Monitoring Committee.
- 13.2 The Monitoring Committee shall be responsible for the following matters, namely;
- (a) addressing issues of energy accounting and monitoring of renewable energy transactions;
 - (b) facilitating the implementation of these Regulations and the rules and procedures developed under these Regulations;
 - (c) assessing and recommending remedial measures for issues that might arise during the course of implementation of these Regulations and the rules and procedures developed under these Regulations;
 - (d) guiding the State Agency in the matters related to implementation of these Regulations;
 - (e) such other matters as may be directed by the State Commission from time to time.

PART C: RENEWABLE ENERGY PRICING

14 Pricing principles for new renewable energy projects to be commissioned during new Operating Period

- 14.1 All the new renewable energy projects commissioned during the Control Period, i.e., after March 31, 2010, shall have an option of following either the tariff structure and other conditions as stipulated in the MERC (Terms and Conditions of determination of RE tariff) Regulations, 2010, or adopt the REC mechanism for pricing of the electricity generated from the project.

Provided that such projects that opt for either preferential tariff or REC mechanism, 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 MERC (Terms and Conditions of determination of RE tariff) Regulations, 2010;

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.

15 Renewable Energy pricing under REC mechanism

15.1 The REC mechanism entails pricing of two components, namely, electricity component and renewable energy component or REC representing environmental attributes of renewable energy generation. For the purpose of the Operating Period from FY 2010-11 to FY 2015-16, the effective electricity component price shall be equivalent to Pooled Cost of power purchase of the host Utility where such RE generation project is situated, whereas, the price of RECs shall be as discovered in the Power Exchange.

Explanation - for the purpose of these Regulations, '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;

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 appropriate by the State Commission.

16 Pricing for Existing RE projects during the new Operating Period

16.1 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 State Commission and the same shall continue to be operative during the Operating Period, FY 2010-11 to FY 2015-16 as well;

Provided that the existing projects for which long term PPA are already put in place, shall be allowed to participate in REC scheme after the expiry of their existing PPA;

Provided further that prior termination of PPA shall not entitle existing renewable energy projects to participate in REC mechanism;

PART D: OTHERS

17 Grid Connectivity Framework

17.1 The licensees shall be responsible for development of evacuation infrastructure beyond the inter-connection point while developer/generating company will have to develop evacuation infrastructure from generation facility up to the inter-connection point at its own expense;

Provided that, the evacuation infrastructure cost beyond the Inter-connection Point shall be borne by the licensees and shall be recovered from the consumers as per suitable pricing framework developed by the State Commission;

18 Power to Relax

- 18.1 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 or may waive any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

19 Power to amend

- 19.1 The State Commission may, at any time, vary, alter, modify or amend any provisions of these Regulations, with reasons to be recorded in writing.

20 Power to remove difficulties

- 20.1 If any difficulty arises in giving effect to the provisions of these Regulations the State Commission may, by general or specific Order, make such provisions not inconsistent with the provisions of the Act, as may appear to be necessary for removing the difficulty.

Mumbai
Dated: June 7, 2010

(K. N. Khawarey)
Secretary,
Maharashtra Electricity Regulatory Commission