

**MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
MUMBAI**

**MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
(RENEWABLE PURCHASE OBLIGATION, ITS COMPLIANCE AND
IMPLEMENTATION OF REC FRAMEWORK) REGULATIONS, 2016**

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ELECTRICITY ACT, 2003.

No. [.....]- 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, 2016.
- 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 a person or member within the meaning of Section 2(8) of the Act being the end user of the electricity generated in a Captive Generating Plant primarily for his own use, and the term "captive use" shall be construed accordingly.
- (c) "**Central Agency**" means such 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 (or "REC") issued by the Central Agency in accordance with the procedures prescribed by it and under 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, as amended from time to time;
- (f) "**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 traded on a Power Exchange;
- (g) "**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 the Certificate can be traded on a Power Exchange;

- (h) **"Inter-connection Point"** shall mean the interface point of a 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 (PV) Projects, the inter-connection point shall be the line isolator on the outgoing feeder on the HV side of the Pooling Sub-station;
- Explanation:-The Pooling Sub-station shall mean the sub-station at the site of the wind farm 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 generating units (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 and solar thermal power projects, the inter-connection point shall be the line isolator on the outgoing feeder on the HV side of the generator transformer.
- (i) **"MNRE"** means the Ministry of New and Renewable Energy, Government of India;
- (j) **"Obligated Entity"** means the Distribution Licensees, users owning captive power plants, and open access consumers in the State of Maharashtra who are required to comply with the Renewable Purchase Obligation (RPO) under these Regulations subject to fulfilment of conditions in Regulation 5;
- (k) **"Open Access Consumer"** means a person availing power using open access pursuant to the Regulations of the State Commission governing the terms and conditions for transmission open access and distribution open access as the case may be;
- (l) **"Power Exchange"** means an exchange operating as a power exchange for electricity in terms of orders issued by the Central Commission;
- (m) **"Preferential Tariff"** means the tariff fixed by the State Commission for sale of energy based on renewable energy sources from a generating station to a Distribution Licensee in accordance with Regulations of the State Commission governing the terms and conditions for determination of Renewable Energy Tariff;
- (n) **"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 are recognized or approved by MNRE;
- (o) **"State Agency"** means the Maharashtra Energy Development Agency, or other agency as may be designated by the State Commission from time to time to act as the agency for accreditation and recommending renewable energy projects for registration and to undertake functions under these Regulations;
- (p) **"State Commission"** means the Maharashtra Electricity Regulatory Commission;
- (q) **"Year"** means a financial year.

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

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 Licensees in the State of Maharashtra;
 - (b) Captive Users in the State of Maharashtra, subject to the conditions in Regulation 5;
 - (c) Open Access Consumers in the State of Maharashtra, subject to the conditions in 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 may qualify as 'renewable' only after the State Commission has approved such technology based on approval by 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) Waste to Energy based on technologies approved by MNRE
 - (f) Solar Power
 - (g) Any other source recognised or approved by the State Commission and 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 the Central Commission from time to time, shall be considered as generation from 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 may be specified by the State Commission from time to time, shall be considered as 'eligible RE source' provided suitable metering and communication arrangement with the State Load Despatch Centre is established by the concerned renewable energy project;

Provided also that eligible generation from Roof-top Solar PV systems as recognized under the Maharashtra Electricity Regulatory Commission (Net Metering for Roof-top Solar Photo Voltaic Systems) Regulations, 2015 shall qualify for the purpose of RPO compliance.

- 4.3 Procurement of Renewable Energy Certificates issued for renewable energy generation within and outside the State of Maharashtra shall be considered as eligible instruments for the purpose of RPO compliance by Obligated Entities within the State of Maharashtra over the Operating Period specified in Regulation 6.

5 Obligated Entities

The percentage specified in Regulation 7.1 shall be applicable to all Distribution Licensees, open access consumers and captive users within the State of Maharashtra, subject to the following conditions:

- (a) Any person who owns a grid connected Captive Generating Plant based on conventional fossil fuel with installed capacity of 1 MW and above, or such other capacity as may be stipulated by the State Commission from time to time, and consumes electricity generated from such Plant for his own use shall be subject to RPO to the extent of a percentage 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 shall be subject to RPO to the extent of a percentage of his consumption met through such open access source.

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

Provided further that the condition under sub-clause (a) above shall not be applicable in case of standby (or emergency back-up) captive generating facilities.

6 Operating Period

The RPO framework specified under these Regulations shall commence from 1 April, 2016 and shall be valid until 31 March, 2020.

7 Renewable Purchase Obligation target

- 7.1 Every 'Obligated Entity' shall procure electricity generated from eligible renewable energy sources to the extent of the percentages, out of its total procurement of electricity from all sources in a year, set out in the following Table:

Year	Quantum of purchase (in %) from renewable energy sources (in terms of energy equivalent in kWh)		
	Solar	Non-Solar (other RE)	Total
	(a)	(b)	(c)
2016-17	1.00%	10.00%	11.0%
2017-18	1.50%	10.50%	12.0%
2018-19	2.00%	11.00%	13.0%
2019-20	2.50%	11.50%	14.0%

Provided that each Distribution Licensee shall meet 0.2% per year of its Non-solar (other RE) RPO for the period from FY 2016-17 to FY 2019-20 by way of purchase from Mini Hydro or Micro Hydro power projects:

Provided further that Distribution Licensees with peak demand of 1 MW and above but less than 5 MW, Captive Users of Captive Generating Plants with installed capacity of 1 MW and above but less than 5 MW and Open Access Consumers with contract demand of 1 MVA and above but less than 5 MVA, shall be required to meet only their composite RPO target set out in column (c) in the Table above annually;

Provided also that each Distribution Licensee shall include its plan for procurement of power from RE sources in its long-term power procurement plan such as would meet the RPO target stipulated above.

- 7.2 Every 'Obligated Entity' may meet its RPO target by way of its own generation or procurement of power from other RE project or by purchase from a Licensee or by way of purchase of Renewable Energy Certificate or by a combination of these options;

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

Provided further that procurement by a Distribution Licensee of RE power generated within the State under a scheme of or approved by MNRE may be considered by the State Commission as eligible quantum for fulfilment of Renewable Purchase Obligation of such Distribution Licensee considering the nature of such scheme and for reasons to be recorded in writing.

8 Certificates under the Regulations of the Central Commission

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, as amended from time to time 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 an Obligated Entity seeking to fulfil its Renewable Purchase Obligation by purchase of Certificates, the obligation to purchase electricity from solar generation may only be fulfilled by purchase of solar Certificates only, and the obligation to purchase electricity from generation based on renewable energy other than solar may only be fulfilled by purchase of non-solar Certificates.

9 State Agency

- 9.1 The State Agency shall function in accordance with the directions of the State Commission and shall act in a manner consistent with the procedures and rules of the 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, as amended from time to time.
- 9.2 The State Agency shall devise an appropriate protocol for collection of information from various sources such as renewable energy generating companies, Obligated Entities, SLDC, etc., and compute the compliance of RPO target by Obligated Entities.

- 9.3 The summary statement of RE procurement and RPO compliance by each Obligated Entity shall be published by the State Agency on a cumulative basis every month on its website.
- 9.4 The statement shall cover RE procurement by each Obligated Entity comprising renewable energy procurement under preferential tariff route or other modality approved by the State Commission with regard to RPO as well as renewable energy procurement through REC mechanism.
- 9.5 The State Agency shall submit to the State Commission the quarterly status of compliance of Renewable Purchase Obligation by the Obligated Entities in the stipulated format and may also suggest appropriate measures, if required, for compliance of such Obligation.
- 9.6 The State Commission may from time to time stipulate the fees and charges payable to the State Agency for discharge of its functions under these Regulations.
- 9.7 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 the State Agency.

10 Distribution Licensees

- 10.1 Each Distribution Licensee shall indicate, with evidence, the estimated quantum of purchase from renewable energy sources for each year of the Operating Period in its Multi Year tariff Petition and shall accordingly enter into arrangements 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 furnish a summary statement of energy procured from different renewable energy sources on a monthly basis to the State Agency.
- 10.4 As soon as may be after the close of the financial year, each Distribution Licensee shall submit a detailed statement of energy procurement from various RE sources, duly certified by the statutory auditor.
- 10.5 Distribution Licensees who are unable to fulfil their RPO shall be liable to pay RPO Regulatory Charges as specified in Regulation 12.1.

11 Captive Users and Open Access Consumers

- 11.1 Subject to the conditions specified in Regulation 5, Captive Users and Open Access consumers shall submit details of their consumption of electricity and power purchase from renewable energy sources towards fulfilment of their respective RPO on a monthly basis to the State Agency.
- 11.2 Captive Users and Open Access Consumers shall purchase renewable energy as specified in Regulation 7.1 and shall accordingly enter into arrangements to meet their RPO.
- 11.3 Captive Users and Open Access Consumers who are unable to fulfil their respective RPO shall be liable to pay RPO Regulatory Charges as specified in Regulation 12:
Provided that Captive Users consuming power from grid connected fossil fuel based co-generation plants are exempt from applicability of RPO targets and specified conditions.
- 11.4 Captive and Open Access consumers and Users may fulfil their RPO through procurement of Renewable Energy Certificates as provided in Regulation 8.

- 11.5 Subject to fulfilment of conditions for captive usage and eligibility criteria 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

If an Obligated Entity fails to comply with the RPO target specified in these Regulations in any year and fails to purchase the required quantum of RECs, the State Commission may direct it 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 at 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;

Provided also that the State Commission may not allow, upon considering the circumstances and for reasons to be recorded in writing, all or part of the RPO Regulatory Charges and associated costs thereof to be passed on to consumers.

13 Monitoring and Implementation Framework

- 13.1 A Monitoring Committee shall be constituted under the aegis of the Grid Co-ordination Committee (GCC), within thirty days of notification of these Regulations. Every member of GCC shall be represented 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 them;
 - (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 them;
 - (d) guiding the State Agency in matters relating 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 renewable energy projects commissioned during the Operating Period

All renewable energy projects commissioned during the Operating Period specified in these Regulations shall have the option of following either the tariff structure and other conditions as specified in the Regulations of the State Commission governing the terms and conditions for determination of RE tariff or adopt the REC mechanism for pricing of the electricity generated from such projects:

Provided that projects that choose one or the other option shall have to continue with that option during the entire Tariff Period or until validity of the Power

Purchase Agreement, whichever is later, as set out in the Regulations of the State Commission governing the terms and conditions for determination of RE tariff ;

Provided also that such Renewable Energy projects shall exercise their choice of pricing mechanism prior to execution of the PPA with a Distribution Licensee or an open access consumer, as the case may be.

PART D: OTHERS

15 Grid Connectivity Framework

The concerned Licensee shall be responsible for development of evacuation infrastructure beyond the inter-connection point, while the generating company shall develop evacuation infrastructure from the 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 Licensee and shall be recovered from its consumers as per the pricing framework developed by the State Commission.

16 Power to Relax

16.1 The State 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, relax or waive any of the provisions of these Regulations on its own motion or on an application made by an interested person.

17 Power to amend

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

18 Power to remove difficulties

18.1 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: _____, 2015

(_____)
Secretary,
Maharashtra Electricity Regulatory Commission