

**COMMERCIAL CIRCULAR No. 267**

**Sub:** Tariff of Non-conventional Energy (NCE)/ Renewable Energy (RE) Projects for the period from 1<sup>st</sup> April 2016 to 31<sup>st</sup> March 2017.

**Ref:** 1. MERC RE Tariff order dated 29<sup>th</sup> April 2016 in Case No. 54 of 2016.  
2. Letter No. CE/Comm/CP-II/Biomass-Bagasse/Fuel Monitoring/3545 dated 30.01.2016.  
3. Letter No. CE/Comm/CP/Biomass-Bagasse/Fuel Monitoring/13137 dated 09.05.2016.

The Maharashtra Electricity Regulatory Commission has notified the MERC (Terms and Conditions for determination of Renewable Energy (RE) Tariff) Regulations, 2015, ("the RE Tariff Regulations") on 10 November, 2015. The RE Tariff Regulations specifies that the Review Period for determination of Tariff for RE Projects shall be five years, starting from the date of notification of the RE Tariff Regulations. The first year of the Review Period is FY 2015-16.

Accordingly, the Hon'ble Commission issued generic RE tariff order for the first year of the review period i.e FY 2015-16 (10<sup>th</sup> November 2015 to 31<sup>st</sup> March 2016) on dated 25<sup>th</sup> January 2016. The guidelines to implement the said order were issued vide Commercial Circular No. 260 dated 26.02.2016 which was applicable for RE Projects commissioned on or before 31<sup>st</sup> March 2016.

Now, the Hon'ble Commission has issued generic RE tariff order on 29<sup>th</sup> April 2016 in Case No. 45 of 2016 for the renewable energy projects for the second year of the review period **i.e FY 2016-17 (1<sup>st</sup> April 2016 to 31<sup>st</sup> March 2017)**.

Accordingly, guidelines are issued for implementation of the said order as below:

- 1. Applicability of Tariff Order:** This Tariff is applicable for New RE Projects to be commissioned during FY 2016-17 (i.e. from 1<sup>st</sup> April 2016 to 31<sup>st</sup> March 2017).
- 2. Tariff for Renewable Energy Projects:-**

**I. WIND:**

Particular	Tariff Period	Levelised Tariff from 1 April, 2016 to 31 March, 2017	Benefits of Tax and Additional Depreciation (if availed)	Net Levelised Tariff, adjusting for Tax and Additional Depreciation Benefit (if availed)
	Years	Rs/kwh	Rs/kwh	Rs/kwh
Wind Zone-1	13	5.56	0.62	4.94
Wind Zone-2	13	4.89	0.55	4.34
Wind Zone-3	13	4.08	0.45	3.63
Wind Zone-4	13	3.82	0.43	3.39

**Note:** The above Tariff shall be valid for Projects Commissioned during the period from 1 April 2016 to 31 March 2017 and for a Tariff Period of 13 years from the Commercial Operation Date (COD).

## II. **SMALL HYDRO:**

Type of SHP	Tariff Period (Years)	Levelised Tariff from 1 April, 2016 to 31 March, 2017	Benefit of Accelerated Depreciation (if availed)	Net Levelised Tariff (upon adjusting for accelerated depreciation benefit, if availed)
		(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
<b>Mini and Micro Hydro Projects</b>				
500 kW and below	35	5.75	0.49	5.26
Above 500 kW and up to and including 1 MW	35	5.25	0.49	4.76
<b>Other SHPs</b>				
Above 1 MW and up to and including 5 MW	35	4.75	0.49	4.26
Above 5 MW and upto and including 25 MW	13	4.08	0.40	3.68

**Note:** The above Tariff shall be applicable for Projects commissioned during the period from 1 April, 2016 to 31 March, 2017 and shall be valid for the entire tariff period as specified above.

## III. **BIOMASS POWER PROJECTS:**

The Tariff Rate comprises two parts, viz., (i) Fixed Charge component, and (ii) Variable Charge component, and shall be applicable for sale of power by Rankine Cycle-based Projects.

Date of Commissioning of Project	Fixed Charge (Rs/kWh)	Variable Charge (Rs/kWh)	Tariff during 1 April, 2016 to 31 March, 2017 (Rs/kWh)	Benefit of Accelerated Depreciation (if availed) (Rs/kWh)	Net Levelised Tariff (upon adjusting for accelerated depreciation benefit, if availed) (Rs/kWh)
During FY 2016-17	2.25	5.41	7.66	0.17	7.49
During FY 2015-16 (10 November, 2015 to 31 March, 2016)	2.35@	5.41	7.76	0.16	7.60
During FY 2015-16 (1 April to 9 November, 2015)	2.27*	5.41	7.68	0.22*	7.46
During FY 2014-15	2.27*	5.41	7.68	0.22*	7.46
During FY 2013-14	2.17#	5.41	7.58	0.21#	7.37
Prior to FY 2013-14	1.70**	5.41	7.11	NA	7.11

**Note:**

@ As per Order dt 25 January, 2016 in Case No 135 of 2015 (from 10 November, 2015 to 31 March, 2016)

\* As per Order dated 7 July, 2014 in Case No. 100 of 2014 (extended till 31 Dec 2015)

# As per Order dated 22 March, 2013 in Case No. 6 of 2013

\*\*Considering first year of operation as per Order dated 8 August, 2005 in Case Nos. 37 of 2003 and 83 of 2008). The per unit fixed charge component is as under:

Year of operation	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	13 <sup>th</sup>
Fixed Charge (Rs/kWh)	1.70	1.67	1.63	1.59	1.54	1.49	1.43	1.37	1.32	1.25	1.18	1.11	1.02

The fixed charge component is linked to year of operation, commencing from date of commissioning of plant and the variable charge component is linked to the financial year.

#### **IV. NON FOSSIL FUEL BASED CO-GENERATION PROJECT (BAGASSE):**

The Tariff Rate comprises two parts, viz., (i) Fixed Charge component, and (ii) Variable Charge component, and shall be applicable for sale of power by Non-Fossil fuel-based Co-Generation Projects.

Date of Commissioning	Fixed Charge (Rs/kWh)	Variable Charge (Rs/kWh)	Tariff (Rs/kWh)	Benefit of Accelerated Depreciation (if availed) (Rs/kWh)	Net Levelised Tariff (upon adjusting for accelerated depreciation benefit, if availed) (Rs/kWh)
During FY 2016-17	2.43	4.27	6.70	0.21	6.49
During FY 2015-16 (10 November, 2015 to 31 March, 2016)	2.52@	4.27	6.79	0.21	6.58
During FY 2015-16 (1 April to 9 November, 2015)	2.46*	4.27	6.73	0.28	6.45
During FY 2014-15	2.46*	4.27	6.73	0.28	6.45
During FY 2013-14	2.38#	4.27	6.65	0.27	6.38
Prior to FY 2013-14	2.26**	4.27	6.53	NA	6.53

**Note:**

@ As per Order dt 25 January, 2016 in Case No 135 of 2015 (from 10 November, 2015 to 31 March, 2016)

\* As per Order dated 7 July, 2014 in Case No. 100 of 2014 (extended till 31 Dec 2015)

# As per Order dt 22 March, 2013 in Case No. 6 of 2013

\*\* As per Order dt 11 January, 2010 in Case No. 123 of 2008.

#### **V. TARIFF FOR NON-QUALIFYING NON-FOSSIL FUEL-BASED CO-GENERATION PLANTS:**

The Tariff Rate for existing non-qualifying non-fossil fuel based co-generation projects is equivalent to the Average Power Purchase Cost (APPC) of MSEDCL for the period of FY 2016-17 from 1 April, 2016 to 31 March, 2017.

#### **VI. SOLAR PROJECTS:**

Levelised tariff for Solar PV Power Projects commissioned during 1 April, 2016 to 31 March, 2017.

Particulars	Tariff Period (Years)	Levelised Tariff	Benefit of Accelerated Depreciation (if availed)	Net Levelised Tariff (upon adjusting for Accelerated Depreciation benefit, if availed)
		(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
Solar PV Projects	13	6.04	0.63	5.41
Solar Roof-top PV and other small Solar Power Projects	13	6.54	0.63	5.91
Solar Thermal Power Projects	25	11.47	1.30	10.17

### General Conditions for all New RE Projects:

#### Payment Mechanism:-

- Payment shall be made within 60 days from the date of receipt of Bill/ Invoice in Circle office.
- Late payment surcharge at the rate of 1.25% per month shall be applicable for the payment beyond a period of 60 days from the date of billing.
- For existing RE projects commissioned on or before 31<sup>st</sup> March 2010, the payment mechanism shall be as per the EPA.

#### Other Terms and Conditions:

- (i) The Tariff determined for a particular year shall continue to be applicable for the entire duration of the Tariff period i.e. Agreement Period.
- (ii) The Tariff payable to all the RE generators shall be the Net Levelised Tariff (upon adjusting for accelerated depreciation benefit). If benefit of accelerated depreciation is not availed by the project developer, then the project developer shall submit an Undertaking at the time of execution of EPA that he is not going to avail the said benefit and after the end of financial year shall submit the duly certified certificate from the Chartered Accountant / Copy of Income tax returns confirming that the benefit of accelerated depreciation is not availed. The total Levelised tariff shall be made applicable after receipt of such certificate and the differential amount if any shall be paid in due course of time.
- (iii) Applicability of Reactive Power Penalty :
  - a. In case of Wind Energy Projects: Reactive energy charge at the rate of Rs 0.10/RkVAh shall apply for reactive energy consumption upto 10% of the active energy delivered to the grid by the Generators. The reactive energy consumption in excess of 10% of active energy delivered to the grid shall be payable at the rate of Rs 0.25/RkVAh.  
  
Reactive energy charges shall be recovered from the bill of the developer for energy sold to the Utility; in case of self-use/ third party, these charges shall be added to the monthly electricity bill of the developer/ generator.
  - b. In case of biomass power projects, non-fossil fuel based co-generation projects and Small Hydro projects, the Project will supply reactive power (RkVAh) equivalent to at least 36% of the active power (kWh) supplied to the grid on a monthly basis. In case of failure to do so, the STU/Licensee shall charge the shortfall at the rate of Rs 0.25/RkVAh, or such other rate as may be stipulated by the Commission from time to time.

(iv) Monitoring of use of fossil fuel (For Biomass based IPP projects and Co-generation Projects):

The use of fossil fuels is limited to 15% of the total fuel consumption on annual basis. The project developer using fossil fuel more than 15%, shall be ineligible for preferential tariff from the date of default and for duration of the default during financial year when such default occurs. During the period of default the tariff applicable shall be APPC rate of MSEDCL.

As per the MERC (Terms and Conditions for Determination of Renewable Energy Tariff) Regulations, 2015 the responsibility of monitoring compliance of Fossil Fuel by Biomass & Bagasse based Co-generation Projects is on MSEDCL.

In this regard, all are requested to ask to all such project holders to mandatorily furnish the monthly fuel procurement and fuel usage statement certified by a Chartered Accountant as per the Annexure B (4nos. of formats) enclosed herewith.

The monthly energy purchase bill of biomass & bagasse based co-generation projects shall be processed for payment only after the verification of monthly fuel usage certificate submitted by the project holder **certified by the Chartered Accountant** every month along with invoice. In case it is found in the monthly report that the use of fossil fuel by biomass & bagasse based co-generation projects is more than 15 %, then the payment of energy purchase bill shall be made at APPC rate of MSEDCL.

Accordingly, all are requested to ensure monitoring of use of Fossil Fuel to the extent of 15% of the total fuel consumption on an annual basis by Biomass & Bagasse based Co-generation Projects. Further, the monthly report shall be submitted to this Office separately by 10<sup>th</sup> day of every subsequent month with a copy to State Nodal Agency (MEDA). The soft copy of report shall be sent to email ID: [cepp@mahadiscom.in](mailto:cepp@mahadiscom.in) and [eecpmsedcl@gmail.com](mailto:eecpmsedcl@gmail.com) without fail. Please refer letter no. 3545 & 13137 dated 30.01.2016 & 09.05.2016.

- (v) As per the MERC (Terms and Conditions for Determination of Renewable Energy Tariff) Regulations 2015, Energy Audit of the Co-generation Project shall be conducted by the Project Entity once a year, during the crushing season, through a Certified Energy Auditor and report to be furnished to MSEDCL. The dates of the Audit shall be intimated by the Project Entity to concerned Circle Office of MSEDCL, who shall depute its representative to participate in the Audit. The concerned Circle Office shall scrutinize such Audit reports so as to verify compliance by the Project.

The Energy Audit shall include computation of the boiler efficiency (based on direct or indirect method), the turbine isentropic efficiency, the auxiliary electricity consumption of the Co-generation facility and computation of Qualifying Criteria for Topping Cycle (greater than 45%) of the plant.

The Project Entity shall appoint, at its cost, an independent Certified Energy Auditor or an Auditor for conducting Energy Audit as above, from among the panel of Auditors prepared by State Nodal Agency.

In this regard, all are requested to ask to all such project holders to mandatorily furnish the audit report upto 31<sup>st</sup> January of each year. In case the project holder fails to submit the audit report by 31<sup>st</sup> January, the energy payment bill from the month of February shall be stopped by the concerned Circle Office.

The Audit results shall be reported to MERC by the concerned Circle Office annually after the closing the crushing season.

For any further queries, it is requested to contact Chief Engineer (Power Purchase).

All the field officers are requested to take necessary action accordingly.

  
Chief Engineer (Commercial)

Copy: As per mailing list.