

CE/Comm/CP/NCE/Tariff/ **No 10212**

Date: **20 APR 2012**

**COMMERCIAL CIRCULAR No. 164**

**Sub:** - Tariff of Non-conventional Energy (NCE)/ Renewable Energy Projects for FY 2012-13.

**Ref:** - MERC RE Tariff order dated 30<sup>th</sup> March 2012

The Maharashtra Electricity Regulatory Commission has notified the Maharashtra Electricity Regulatory Commission (Terms and Conditions for determination of RE Tariff) Regulations, 2010 ("RE Tariff Regulations") on 7<sup>th</sup> June 2010.

Accordingly, MERC issued generic RE tariff order for the first year of the control period (i.e FY 2010-11) on dated **14<sup>th</sup> July 2010**. The guidelines were issued vide **Commercial Circular No. 122 dated 12.10.2010 which shall continue to remain applicable for RE Projects commissioned on or before March 31, 2011.**

The Hon'ble Commission has issued generic RE tariff order, on **29<sup>th</sup> April 2011** for the renewable energy projects for the second year of the control period (i.e FY 2011-12). The guidelines were issued vide **Commercial Circular No. 137 dated 16.06.2011 which shall be applicable for RE Projects commissioned during FY 2011-12 (i.e from April 1, 2011 to March 31,2012).**

Now, the Hon'ble Commission has issued generic RE tariff order, on **30<sup>th</sup> March 2012** for the renewable energy projects for the third year of the control period (i.e FY 2012-13). Hence, the guidelines as under are issued for implementation of the said order of the Commission.

**1. Applicability of Tariff Order:-**

This Tariff is applicable for New RE Projects to be commissioned during FY 2012-13 (i.e. from April 1, 2012 to March 31, 2013).

**2. Tariff for Renewable Energy Projects:-**

**I. WIND:**

**(A) Wind Zone-wise Levellised Tariff for New RE Projects for FY 2012-13.**

| Particular                  | CUF | Tariff Period in Years | Levellised Total Tariff (FY 2012-13) | Benefit of Accelerated Depreciation (if availed) | Net Levellised Tariff (upon adjusting for Accelerated Depreciation benefit (if availed)) |
|-----------------------------|-----|------------------------|--------------------------------------|--|--|
|                             |     |                        | <b>(Rs/kWh)</b>                      | <b>(Rs/kWh)</b>                                  | <b>(Rs/kWh)</b>  |
| <b>Wind Energy Projects</b> |     |                        |                                      |  |  |
| Wind Zone-1                 | 20% | 13                     | 5.67                                 | (0.81)   | 4.86   |
| Wind Zone-2                 | 23% | 13                     | 4.93                                 | (0.70)   | 4.23   |
| Wind Zone-3                 | 27% | 13                     | 4.20                                 | (0.60)   | 3.60   |
| Wind Zone-4                 | 30% | 13                     | 3.78                                 | (0.54)   | 3.24   |

**Notes:**

- The above Tariff shall be valid for Projects Commissioned in FY 2012-13 and for a Tariff Period of 13 years from the Commercial Operation Date (COD).
- The procedure for classification of wind power projects into wind zones has been finalized by MEDA. As such, the tariff for the projects commissioned during FY 2010-11 and 2011-12 shall be made applicable as per the wind zone class of the respective wind power project under relevant RE tariff order.
- The Wind generators having projects commissioned in FY 2010-11 and 2011-12 are eligible for differential payment, if any in line with the revision in class.

**(B) Wind Group II Projects -**

Beyond FY 2009-10, those projects whose PPA has expired shall have option to continue with the preferential Tariff i.e. Rs 2.52 per unit or opt for pricing under REC mechanism.

**II. SMALL HYDRO:****Levellers tariff for new small hydro and mini/micro hydro projects in FY 2012-13:**

| Particulars                   |                                      | Tariff Period | Levellers Total Tariff(FY 2011-12) | Benefit of Accelerated Depreciation (if Aailed) | Net Levellers Tariff (upon adjusting for Accelerated Depreciation benefit) (if Aailed) |
|-------------------------------|--------------------------------------|---------------|------------------------------------|---|--|
|                               |                                      | years         | (Rs/kWh)                           | (Rs/kWh)  | (Rs/kWh)   |
| Small Hydro Project           |                                      |               |                                    |   |  |
| Mini and Micro Hydro Projects | 500 KW & below                       | 35            | 5.76                               | (0.58)  | 5.18   |
|                               | Above 500 KW & upto & including 1 MW | 35            | 5.26                               | (0.58)  | 4.68   |
| Other Small Hydro Projects    | Above 1 MW & upto and including 5MW  | 35            | 4.76                               | (0.58)  | 4.19   |
|                               | Above 5 MW & upto and including 25MW | 13            | 4.09                               | (0.53)  | 3.56   |

The above Tariff shall be applicable for Projects commissioned in FY 2012-13 and shall be valid for the entire tariff period as specified above.

**III. BIOMASS POWER PORJECTS:**

The tariff for existing and new projects based on renewable energy technologies having fuel cost component like Biomass projects and non fossil fuel based Co-generation projects, the tariff, tariff structure and other conditions as specified under respective **RE Tariff order shall continue to be applicable for first three year of Control Period i.e. FY 2010-11, FY 2011-12 and FY 2012-13.**

However, in line with the powers of Hon'ble Commission under "Removal of Difficulty" as specified in Regulation 77.1 of RE Tariff Regulations, the Hon'ble Commission has revised the variable charge component of the Tariff for biomass power projects in Maharashtra.



Hence, the tariff for Existing and New Biomass Power projects during FY 2012-13 is as under:-

| Financial Year | Fixed Charge<br>(Rs/kWh) | Variable Charge<br>(Rs/kWh) | Tariff<br>(Rs/kWh) |
|----------------|--------------------------|-----------------------------|--------------------|
| 2012-13        | 1.70                     | 3.71                        | 5.41               |

The Tariff Rate comprises two parts viz. (i) fixed charge component and (ii) variable charge component and shall be applicable for Rankine cycle based biomass power project for sale of power to Distribution Licensee within Maharashtra during FY 2012-13.

**Note:**

The tariff of Rs. 5.41 per unit is applicable to all the Biomass projects (existing and new projects in the state) during FY 2012-13. **It is to note that, there is neither escalation nor reduction in this rate for all the Biomass projects (Existing and new).**

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

The tariff for existing and new non fossil fuel based co-generation projects (Bagasse) during FY 2012-13 is as under:

| Financial Year | Fixed Charge<br>(Rs/kWh) | Variable Charge<br>(Rs/kWh) | Tariff<br>(Rs/kWh) |
|----------------|--------------------------|-----------------------------|--------------------|
| 2012-13        | 2.26                     | 2.53                        | 4.79               |

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 project satisfying the qualifying criteria.

**Note:**

The tariff of Rs. 4.79 per unit is applicable to all the Cogeneration projects (existing and new projects in the state) during FY 2012-13. **It is to note that, there is neither escalation nor reduction in this rate for all the Cogeneration projects (Existing and new).**

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

- The tariff rate for Non-Qualifying non fossil fuel based Co-generation projects **(existing and New)** shall be **Rs.2.23 Rs/kWh.**

**USE OF FOSSIL FUEL (For Biomass based IPP projects and Cogeneration Projects) :**

The use of fossil fuels is limited to 15% of the total fuel consumption on annual basis or as amended by MNRE from time to time.

**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 lower by Rs 0.50/kWh below the applicable preferential tariff determined.**

## **VI. SOLAR:**

### **a) SOLAR PHOTOVOLTAIC (PV), ROOFTOP PV AND OTHER SMALL SOLAR PROJECTS:**

#### **Levellised tariff for Solar Power projects in FY 2012-13:**

| Particular  | Tariff Period | Levellised Tariff (FY 2012-13) | Benefit of Accelerated Depreciation (if Aailed) | Net Levellised Tariff(upon adjusting for accelerated Depreciation |
|---|---------------|--------------------------------|---|---|
|   | years         | (Rs/kWh)                       | (Rs/kWh)  | (Rs/kWh)  |
|   |               | <b>Solar Power Projects</b>    |   |   |
| Solar PV Projects   | 25            | 11.16                          | (1.65)  | 9.51  |
| Solar rooftop PV and other small solar power Projects upto 2 MW | 25            | 11.66                          | (1.65)  | 10.01   |

- The Tariff for Solar PV projects and Solar Rooftop PV and other small solar Projects as stated above shall be applicable for Projects wherein PPA are signed after March 31, 2012 and projects are commissioned during FY 2012-13, and shall be valid for a tariff period of 25 years from the Commercial Operation Date (COD).
- The Tariff for Solar PV projects, Solar Rooftop PV and other small solar Projects to be commissioned during FY 2012-13 wherein PPAs are signed on or before March 31, 2012, shall be as specified in the Commission's Generic RE Tariff Order (Case No. 39 of 2011) for RE technologies for Second year of control period, issued on April 29,2011

### **b) SOLAR THERMAL PROJECTS:**

#### **Levellised tariff for Solar Thermal Power projects in FY 2012-13:**

| Particular                   | Tariff Period | Levellised Tariff (FY 2012-13) | Benefit of Accelerated Depreciation (if Aailed) | Net Levellised Tariff(upon adjusting for accelerated Depreciation |
|------------------------------|---------------|--------------------------------|---|---|
|                              | years         | (Rs/kWh)                       | (Rs/kWh)  | (Rs/kWh)  |
| Solar Thermal power Projects | 25            | 13.44                          | (1.97)  | 11.47   |

- The above Tariff for Solar thermal power Projects shall be applicable for the projects wherein PPA's are signed after March 31, 2011 and projects are commissioned during FY 2012-13, and shall be valid for a tariff period of 25 years from the Commercial Operation Date (COD).
- The Tariff for Solar thermal power Projects to be commissioned during FY 2012-13 wherein PPAs are signed on or before March 31, 2011, shall be as specified in the Commissions Generic RE Tariff Order (Case No. 39 of 2011) for RE technologies for Second year of control period, issued on April 29,2011.



## GENERAL CONDITIONS FOR ALL New RE Projects:

### PAYMENT MECHANISM:-

- Payment to 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 Levelled Tariff** (upon adjusting for accelerated depreciation benefit). However, if benefit of accelerated depreciation is not availed by the project developer, the Total Levelled tariff shall be made applicable. In such case, the project developer shall submit the Duly certified certificate from the Chartered Accountant / Income tax Department confirming that, the benefit of accelerated depreciation is not availed.
- (iii) Applicability of Reactive Power Penalty :

With regard to the Reactive Power Compensation, the Hon'ble Commission has ruled that *"performance norms/standards will have to be developed in conformity with relevant Grid connectivity standards for each type of RE system to be formulated by Central Electricity Authority. The Commission opines that, technical issues in the matter; needs to be deliberated at forum such as Grid Co-ordination Committee and suitable action plan may be proposed within three months from issuance of this order."*

However, till the finalization of suitable action plan with regard to the reactive power penalty the reactive power compensation as stipulated in following paragraphs (in line with the MERC Order dated 29.04.2011) and as may be revised from time to time shall be applicable in the following manner for all the RE Projects (Existing and New):

- 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, these charges shall be added to the monthly electricity bill of the developer; in case of sale to third party, these charges shall be added to the monthly electricity bill of the consumer (third party purchaser to whose premises energy is wheeled). For the period when wheeling is discontinued, it will be recovered from the developer.

- b. In case of biomass power projects and non-fossil fuel based co-generation 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.

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

  
**Chief Engineer (Commercial)**

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