

CE/Comm/NCE/Tariff/

No 3 1371

Date:

12 OCT 2010

Commercial CIRCULAR No. 122

Sub: - Tariff of Non-conventional Energy (NCE)/ Renewable Energy Projects for FY 2010-11.

Ref: - MERC RE Tariff order dated 14th July 2010

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 7th June 2010.

The Hon'ble Commission in exercise of the powers vested under section 61 read with 181 of Electricity Act, 2003 and all other powers enabling in this behalf and after taking into considerations suggestions, objections raised /received during the public hearing dated 10th July 2010, responses & submissions of MSEDCL has issued generic tariff order, on **14th July 2010** in case No.20 of 2010 on *suo-motu* basis for the renewable energy projects for the first year of the control period (i.e FY 2010-11), on the basis of the norms and procedure specified in the MERC RE Tariff Regulations. Hence the guidelines as under are issued for implementation of the said order of the commission.

1. Applicability of Tariff Order:-

These tariffs are applicable for Existing RE projects and New RE Projects to be commissioned during FY 2010-11.

Existing RE Project:

Existing RE Project means the renewable energy Project whose date of commissioning falls prior to date of notification of MERC (Terms and conditions for determination of RE Tariff) Regulations, 2010.

New RE Project:

New RE project means the renewable energy project whose date of commissioning is subsequent to the date of notification of MERC (Terms and Conditions for determination of RE Tariff) Regulations, 2010.

2. Tariff for Renewable Energy Projects:-

I. WIND:

For existing wind projects: The tariff for existing Wind power Projects during FY 2010-11 shall be as under:

- **Group I-** Tariff started with 2.25 Rs/kWh for 1994-95 and escalated at the rate of 5% (i.e., 11 paise every year) till 10th year, then remained constant for next 3 years, then again escalated from 14th year onwards till 20th year at the same rate.
- **Group II-** Tariff started with 2.25 Rs/kWh with 5% escalation.
- Beyond FY 2009-10, those projects whose PPA has expired shall have option to continue with the preferential Tariff or opt for pricing under REC mechanism.
- Post expiry of their respective EPAs tariff shall be Rs 2.52 per unit.
For FY 2010-11, in case the Wind developer chooses to sell at preferential Tariff, the Tariff of Rs 2.52/kWh shall be applicable.

- **Group III-** Tariff started with 3.50 Rs/kWh in 2003-04 and increases at the rate of 15 paise per year for 13 years. The starting rate will be applicable from the year of Commissioning of the wind project.

For New RE Projects-Wind:

The generic tariffs for wind Energy Projects for FY 2010-11 has been determined as under. The Discount factor for carrying out levellisation of Tariff for wind energy projects works out to 15.96%.

Particular	CUF	Tariff Period	Levellised Total Tariff (FY 2010-11)	Benefit of Accelerated Depreciation (if availed)	Net Levellised Tariff (upon adjusting for Accelerated Depreciation benefit (if availed))
			(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
Wind Energy Projects					
Wind Zone-1	20%	13	5.07	(0.78)	4.29
Wind Zone-2	23%	13	4.41	(0.68)	3.73
Wind Zone-3	27%	13	3.75	(0.58)	3.18
Wind Zone-4	30%	13	3.38	(0.52)	2.86

Notes:

- The above Tariff shall be valid for Projects Commissioned in FY 2010-11.
- The above Tariff shall be valid for a Tariff Period of 13 years from the Commercial Operation Date(COD)

II. SMALL HYDRO:

Existing Small Hydro Projects:

The Tariff for existing Small Hydro Projects during FY 2010-11 shall be as follows:

Sr. No.	Financial year	Existing Projects		Sr.No.	Financial Year	Existing Projects	
		Year of Operation	2005-06			Year of Operation	2005-06
1	2005-06	1	2.84	11	2015-16	11	3.11
2	2006-07	2	2.87	12	2016-17	12	3.11
3	2007-08	3	2.90	13	2017-18	13	3.11
4	2008-09	4	2.93	14	2018-19	14	3.11
5	2009-10	5	2.96	15	2019-20	15	3.11
6	2010-11	6	2.99	16	2020-21	16	3.14
7	2011-12	7	3.02	17	2021-22	17	3.17
8	2012-13	8	3.05	18	2022-23	18	3.20
9	2013-14	9	3.08	19	2023-24	19	3.23
10	2014-15	10	3.11	20	2024-25	20	3.26

Tariff in the first year of the project is Rs.2.84/unit, and increases by Rs.0.03/unit every year till the debt repayment is over i.e., in the 10th year. The tariff shall remain constant at Rs.3.11/unit between the 10th year and the 15th year after which it again increases annually at a constant rate of Rs.0.03/unit.

Levelling tariff for new small hydro and mini/micro hydro projects in FY 2010-11:

The discount factor worked out as 16.13% for levellisation of tariff for SHPs. The generic tariffs for New Small Hydro Projects and Mini and Micro Hydro Projects for FY 2010-11 have been determined as follows:

Particulars		Tariff Period	Levelling Total Tariff(FY2010-11)	Benefit of Accelerated Depreciation (if Available)	Net Levelling Tariff (upon adjusting for Accelerated Depreciation benefit) (if Available)
		years	(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
Small Hydro Project					
Mini and Micro Hydro Projects	1 MW & below	35	4.76	(0.56)	4.20
Other Small Hydro Projects	Above 1 MW & upto and including 5MW	35	4.26	(0.57)	3.70
	Above 5 MW & upto and including 25MW	13	3.65	(0.51)	3.14

- > The above Tariff shall be valid for Projects commissioned in FY 2010-11.
- > The above Tariff shall be valid for a tariff period of 35 years from their Commercial Operation date(COD) for Projects less than and including 5 MW ,and for 13years for Projects with installed capacity greater than 5 MW and upto and including 25 MW.
- > As per the provision in Regulation No.33 of MERC RE Tariff Regulations 2010,the Levelling Tariff for Mini/Micro Hydro Projects in FY 2010-11 with capacity less than 1 MW is higher by Rs.0.50/kWh than the Levelling Tariff for Small Hydro Projects with installed capacity more than 1 MW but upto and including 5 MW.

III. BIOMASS POWER PROJECTS:

As per the Regulation No.3.3 of the MERC RE Tariff Regulations, 2010, 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. 2010-11,FY 2011-12 and FY 2012-13.

Accordingly, the tariff for existing and new Biomass Power Projects in FY 2010-11 is as per the relevant Biomass Tariff order already issued by the Commission which is as under:

Tariff Existing and New Biomass Power projects:-

Financial Year	Fixed Charge (Rs/kWh)	Variable Charge (Rs/kWh)	Tariff (Rs/kWh)
2010-11	1.70	3.28	4.98

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 biomass power project to distribution licensees within Maharashtra during FY 2010-11.

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

As per RE Tariff Regulation 3.3, the tariff for existing and non fossil fuel based co-generation projects (Bagasse) during FY2010-11 is as under:

Financial Year	Fixed Charge (Rs/kWh)	Variable Charge (Rs/kWh)	Tariff (Rs/kWh)
2010-11	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 to distribution licensees within Maharashtra during FY 2010-11.

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

- The Commission has determined the Tariff for non-qualifying non-fossil fuel based co-generation (NQNFEC) projects as Rs 1.94/kWh with escalation of 2% per annum on compounded basis under its Order (Case 26 of 2004) dated May 25, 2005.

Accordingly, the Tariff Rate for existing non-qualifying non-fossil fuel based co-generation projects for FY 2010-11 works out to Rs. 2.14/kWh.

- The tariff rate for Non-Qualifying non fossil fuel based Co-generation projects (**existing and New**) shall be **Rs.2.14 Rs/kWh**.

USE OF FOSSIL FUEL:

As per the MERC RE tariff Regulation 2010, Section 42.1, 43.1 and 58.1 and 59.2, 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.

In case the project developer uses fossil fuel more than 15%, he will be charged at a tariff rate Rs.0.50/unit below the applicable preferential rate.

VI. SOLAR:

SOLAR PHOTOVOLTAIC (PV), ROOFTOP PV AND OTHER SMALL SOLAR AND SOLAR THERMAL PROJECTS:

Levelling tariff for Solar Power projects in FY 2010-11:

The generic tariffs for Solar PV, Rooftop PV and other small solar power and Solar thermal Projects for FY 2010-11 considering the discount factor 15.96 % is determined as under:

Particular	Tariff Period	Levelling Tariff (FY 2010-11)	Benefit of Accelerated Depreciation (if Available)	Net Levelling Tariff (upon adjusting for accelerated Depreciation)
	years	(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
Solar Power Projects				
Solar PV Projects	25	17.91	(2.96)	14.95
Solar rooftop PV and other small solar power Projects upto 2 MW	25	18.41	(2.96)	15.45
Solar Thermal power Projects	25	15.31	(2.46)	12.85

- The Tariff specified for Solar power projects (PV, rooftop and other small solar) as stated above shall be valid for Projects Commissioned in FY 2010-11 and FY 2011-12 as well, and shall be valid for a tariff period of 25 years from the Commercial Operation Date (COD).
- The Tariff specified for Solar Thermal power projects as stated above shall be valid for Projects Commissioned in FY 2010-11, FY 2011-12 and FY 2012-13 as well, and shall be valid for a tariff period of 25 years from the Commercial Operation Date (COD).
- The tariff for Solar rooftop PV and other small solar power projects is kept higher by Rs.0.50/kWh as specified in Regulation 68.1 of MERC (Terms and conditions of RE tariff) Regulations, 2010.

GENERAL CONDITIONS FOR ALL NCEs :

PAYMENT MECHANISM:-

- Payment to be made within 60 days from the date of billing.
- Rebate of 2% for payment of bills of the generating company through letter of credit or Rebate of 1% where payments are made other than through letter of credit within a period of one month of presentation of bills.
- 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.

OTHER TERMS AND CONDITIONS:

- (i) Grid connectivity of solar power projects:

The evacuation infrastructure beyond the Inter-connection point is the responsibility of the concerned Transmission Licensee or Distribution Licensee, as the case may be.

- (ii) The Tariff determined for a particular year shall continue to be applicable for the entire duration of the Tariff period.

- (iii) Sharing of CDM Benefit:

As per Regulation 21.1 of MERC RE Tariff Regulations, 2010, all the risks, costs and efforts associated with the availing of carbon credits shall be borne by the generating company. Further, the entire proceeds of carbon credit from approved CDM project, if any, shall be retained by the generating company.

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


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Chief Engineer (Commercial)

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