

No. CE/PP/NCE/ RE Tariff 2018-19/Comments/18224

Date: 30.07.2018

To,
The Secretary,
Maharashtra Electricity Regulatory Commission,
13th Floor, Centre No.1, World Trade Centre,
Cuffe Parade, Colaba,
Mumbai - 400 005.

Sub: Submission of MSEDCL's comments on the MERC draft order on the generic tariff for Renewable Energy for FY 2018-19.

Ref: Public notice on MERC website.

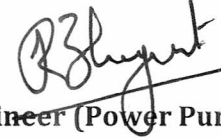
Dear Sir,

Please find enclosed herewith the comments on behalf of MSEDCL in response to the MERC draft order (Case no. 204 of 2018) on the generic tariff for renewable energy for FY 2018-19. The same may please be put up to the Hon. Commission.

Submitted please.

Thanking you.

Yours faithfully,



Chief Engineer (Power Purchase)

Copy s.w.rs. to:

The Director (Commercial), MSEDCL, Mumbai.

MSEDCL COMMENTS IN THE MATTER OF DRAFT SUO-MOTU DETERMINATION OF GENERIC TARIFF FOR RENEWABLE ENERGY FOR FY 2018-19 WITHIN MAHARASHTRA.

MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LTD. RESPECTFULLY SUBMITS:

1. Background

- a) Maharashtra State Electricity Distribution Company Limited (*hereinafter referred to as "MSEDCL" or "The Petitioner"*) is a Company constituted under the provisions of Government of Maharashtra General Resolution No. PLA - 1003/ C. R. 8588 dated 25th January 2005 and is duly registered with the Registrar of Companies, Mumbai on 31st May 2005. The Petitioner Company is functioning in accordance with the provisions envisaged in the Electricity Act, 2003 and is engaged, within the framework of Electricity Act, 2003, in the business of distribution of electricity to its consumers situated over the entire State of Maharashtra, except Mumbai City & its suburbs (excluding Mulund & Bhandup).
- b) In exercise of the powers vested under Sections 61, 66 and 86 read with Section 181 of the Electricity Act (EA), 2003 and other powers enabling it in this behalf. Hon'ble Commission has notified the MERC (Terms and Conditions for Determination of Renewable Energy (RE) Tariff) Regulations, 2015, ("the RE Tariff Regulations") on dated 10th November, 2015. The said Regulations specify the Terms and Conditions and the Procedure for determination of Generic Tariff by the Commission in respect of the following RE Generating Stations:
 - (a) Wind Power Projects;
 - (b) Biomass-based Power Projects;
 - (c) Non-Fossil Fuel-based Co-Generation Projects;
 - (d) Mini/Micro and other Small Hydro Power Projects;
 - (e) Solar Photo Voltaic (PV)/Solar Thermal Power Projects;
 - (f) Solar Roof-top PV Systems Power Projects
- c) Pursuant to the Regulation 9.1 of the Maharashtra Electricity Regulatory Commission (Terms and Conditions for Determination of Renewable Energy Tariff) Regulations, 2015, Hon'ble Commission has suo-moto prepared a Draft Order in Case No. 204 of 2018 in the matter of determination of Generic Tariff for Renewable Energy Technologies for FY 2018-19 within Maharashtra.
- d) The Electricity Act 2003 mandates promotion of Renewable Energy (RE) and has cast the responsibility of the same on States Government, SERCs. From time to time, Government of Maharashtra has encouraged the development of RE Sources by formulating various policies in line with the Central Government Policies since 1996. These Policies were successfully implemented in the State and has achieved

significant progress in the Development of RE Sources. These policies used to be considered as win-win policies for Investor, Licensee and Consumers.

- e) From time to time, Hon'ble Commission has issued various orders for Tariff determination for RE Sources along with terms & conditions for tariff determination and power purchase from RE Sources including Wind Power Projects, Cogeneration Power project based on Bagasse, Biomass based Power Generation project, Municipal Solid Waste based Power Generation project and Small Hydro Power projects. Further, Hon'ble Commission has made it mandatory to purchase certain fixed portion from RE Source for the Licensees and others through Renewable Power Purchase Obligations (RPO) Regulations.
- f) In the following paragraphs, MSEDCL has discussed various important issues related to Generic Tariff for Renewable Energy which are necessary to be considered by Hon'ble Commission while deciding the Generic Tariff for Renewable Energy Technologies for FY 2018 -19 within Maharashtra.

2. Hon'ble Commission's Draft Order for Generic Tariff for Renewable Energy for FY 2018-19

Till date MSEDCL has been executing EPAs with RE Generators to promote the RE Sources in the State in line with the preferential tariff determined by the Hon'ble Commission from time to time. However, after notification of Competitive bidding guidelines issued by MoP on dated 03.08.2017 & 08.12.2017, MSEDCL has explored the option of Competitive bidding since November 2017.

The rates discovered through Competitive bidding are very low as compared with rates determined by Hon. Commission under fed in tariff regim and at the same time promoting the RE generation.

The draft order published by the Hon'ble Commission has introduced the generic tariff for FY 2018-19 for Wind, Bagasse and Solar PV with two approaches i.e. approach 1 & 2. Approach 1 is about generic/ preferential tariff while Approach 2 is in line with the rates discovered under Competitive bidding. The approach of linking FIT with tariff discovered through competitive bidding is highly appreciated by MSEDCL which will benefit the common consumers at large. Hence MSEDCL supports to Approach 2 with certain modifications/ suggestions as below.

The point-wise comments / suggestions of MSEDCL in respect of the said draft order are as under:

i. **Considering that the generic tariff determined as per Approach 2 of Tariff philosophy:**

It is proposed that, Tariff shall be valid for a Tariff Period of 25 years from the COD instead of tariff period of 13 years.

Sr.	RE Source	Tariff proposed (Rs. p.u.)	MSEDCL's Comments
1	Wind	2.87	MSEDCL welcomes the decision of Rs. 2.87 p. u. as proposed Generic Tariff applicable for all new Wind projects in all wind zones for FY 2018-19.
2	Solar PV	2.72	MSEDCL welcomes the decision of Rs. 2.72 p. u. as proposed Generic Tariff applicable for all new projects for FY 2018-19.
3	Solar-Roof Top and other small solar	3.22	MSEDCL welcomes the decision of Rs. 3.22 p. u. as proposed Generic Tariff applicable for all new projects for FY 2018-19.
4	Co-generation	4.99	The tariff of Rs. 4.99 p.u seems to be on higher side. Rate of Rs. 4.99 p.u. discovered through competitive bidding was for plants which were ready for commissioning & having high interest rates. However, for new plants in view of FY 2018-19 revised interest rates, tariff of Rs. 4.00 p.u. need to be considered. The proposed variable cost for FY 2018-19 of Rs. 4.17 p.u. by the Hon. Commission is on very much higher side as against the variable cost of Rs. 1.82 p.u. & Rs. 2.83 p.u. by KERC & TNERC respectively.
5	Biomass	7.44	The tariff seems to be very high. The Hon'ble Commission is requested to fix the tariff at par with Cogeneration tariff. From MSEDCL experience of competitive bidding of bagasse, it can be seen that there will be drastic reduction in tariff and it could be around Rs 2.00 p.u. less than the commission's approved levelised tariff. Since an overall reduction in effective tariff is envisaged, an equal quantum deduction in variable cost as well is proposed. This implies that the effective variable cost becomes Rs 3.29 p.u. (Rs. 5.29 p.u. – Rs. 2.00 p.u.) The above variable cost of Rs. 3.29 p.u. is in the range of the rates of KERC & TNERC of Rs. 3.36 p.u. & Rs. 3.96 p.u. respectively.

It is submitted that due to changing technologies evolution and maturity in the RE market the rates of RE power has reduced significantly in last one year. Therefore, MSEDCL suggest that the rates given in Approach 2 should not be a ceiling rate throughout the control period but the rate with prevailing market conditions.

ii. **MSEDCL recommendations/ suggestions If in case Hon. Commission is inclined to consider Approach 1 tariff philosophy:**

MSEDCL is strongly recommending that the Hon'ble Commission's shall determine the generic tariff under Approach 2 (avoiding undue advantage to the RE generators at the cost of common consumers). However, if the Commission is of any view to consider the Approach 1, then kindly consider and take on record MSEDCL following submission while determining the generic tariff under Approach 1.

a) **Interest on Loan**

As per Clause 2.3.3, Hon'ble Commission has considered interest on loan at the rate of 10.98% p.a. assuming the average 1 year MCLR of SBI of 7.98% plus 300 basis points. Further, Regulation 15.1 specifies a loan tenure of 12 years for determination of Generic Tariff for RE Projects.

Comments - MSEDCL submits that the interest on loan considered is very high & it is no realistic based on current trend of lower interest rates of bank. Also, the CERC on 17.04.2017 has notified the Terms and Conditions for Tariff determination from Renewable Energy Sources Regulations, 2017 wherein Regulation 14 specifies that the interest on loan at the rate of average 6 months MCLR of SBI plus 200 basis points is to be considered for determination of tariff. Further, the loan tenure of 13 years is to be considered for determination of tariff. The interest on loan of 9.97 % is considered by CERC for FY 2018-19.

Hence, MSEDCL submits that Hon'ble Commission may adopt the same methodology as adopted by CERC for ascertaining the interest of loan or lower than that considering the funds available at actual rate in market.

b) **Interest on Working Capital**

As per Clause 2.3.4, Interest on Working Capital, Hon'ble Commission has used Interest on working capital at the rate of 11.48 % p.a. assuming the average 1 year MCLR of SBI of 7.98% plus 350 basis points.

Comments - MSEDCL submits that the interest on working capital considered is very high. MSEDCL submits that the Regulation 17 of the CERC Regulations, 2017 specifies that the interest on loan at the rate of average 6 months MCLR of SBI plus 300 basis points is to be considered for determination of tariff. Accordingly, the interest on loan of 10.97 % is considered by CERC for FY 2018-19.

MSEDCL submits that in accordance with CERC Regulation 2017 Hon'ble Commission may adopt the same methodology for ascertaining the interest of loan.

c) **ROE norms**

Commission while determining levelled tariff has considered ROE of 16%

Comments – MSEDCL submits that CERC Regulations 2017 has considered the normative Return on Equity as 14%,. Further, the ROE norms of other SERCs have reduced as given below:

State	ROE norms
karnataka	14% plus tax
Gujrat	14% plus tax

Hence, looking to the present reducing trend of interest rate MSEDCL submits that Hon'ble Commission, in line with CERC Regulations 2017 and other SERC may consider rate of ROE to be 14%.

d) **Debt-Equity ratio**

MSEDCL submits that to modify normative debt-equity ratio from 70:30 to 80:20 in respect of new plants, where financial closure is yet to be achieved

e) **Tariff of wind projects**

Regulation 28 specifies the following CUF as per the wind zones and proposed at 80 meter hub height.

	Proposed at 80 m Hub Height	
Wind Zone	Annual Mean Wind Power Density (W/m ²)	CUF
Zone 1	<=250	22%
Zone 2	>250 - <=300	25%
Zone 3	>300 - <=400	30%
Zone 4	>400	32%

Comments – MSEDCL strongly opposes the wind zone classification and humbly submits that the single wind zone tariff be made applicable for all new wind projects from FY 2018-19 in the tariff order.

e) **Fuel Cost of Bagasse based power project**

The fuel cost considered by Hon. Commission as Rs. 2387.44 per MT for FY 2018-19 is much higher than that of other States. The comparison of the fuel cost and variable cost component in the States where the generic tariff order for FY 2018-19 is determined is as given below:

State	Fuel Cost by CERC (Rs./MT)	Fuel Cost by SERC (Rs./MT)	Variable cost component by SERC (Rs./Unit)
Karnataka	2062.95	1039.00	1.82
Tamil Nadu	1834.89	1834.35	2.83
Maharashtra	2387.44	2387.44	4.17

Further, KERC vide its order dated 14.05.2018 has estimated the fuel cost for FY 2018-19 considering the base of Fair and Remunerative price for sugar cane payable by the sugar factories. The relevant extracts of the order is as under:

“Therefore, it is considered that it would be just and proper to consider the cost at the production point or ex-factory price of bagasse for the purpose of tariff determination and for arriving at such cost, the price paid towards purchase of sugar can be made use of. As per the data obtained from the Office of the Commissioner for Cane Development and Director of Sugar, Karnataka, the average Fair and Remunerative price for sugar cane payable by the sugar factories in the State is Rs.2817 per tonne (It ranges from Rs.2550 to Rs.3260 per tonne) for 2017-18. Considering that one tonne of sugarcane on crushing yields about 30% of bagasse, the price component of bagasse in sugarcane price (pre-production cost) can be taken at Rs.819 per tonne for 2017-18 and with an annual escalation of 5.72%, it works out to Rs.865.85 per tonne for 2018-19.

From the available literature, the cost of production of sugar from sugarcane ranges from 20% to 30%. Considering that bagasse gets generated immediately after crushing of sugar cane, the cost of production of bagasse can be taken at 20% and thereby, the cost of bagasse works out to Rs.1039.00 for 2018-19. With annual escalation of 5.72%, it works to Rs.1098.44 per tonne for 2019-20 and Rs.1161.28 per tonne for 2020-21. The above fuel cost is approved for the control period.”

If the same principle is adopted then, the GoM has declared the Fair and Remunerative price for sugar cane payable by the sugar factories for FY 2018-19 as Rs. 2750 per tonne. Considering that one tonne of sugarcane on crushing yields about 30% of bagasse, the price component of bagasse in sugarcane price works out to Rs. 825 per tonne for 2018-19. Considering the cost of production of bagasse at 20% and thereby, the cost of bagasse works out to Rs.990 per tonne for 2018-19.

MSEDCL submits that Hon. Commission may consider the same methodology as adopted by KERC for determining the fuel cost of bagasse for FY 2018-19.

f) Fuel Cost for Biomass Projects:

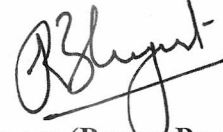
The fuel cost considered by Hon. Commission as Rs. 4091.02 per MT for FY 2018-19 is much higher than that of CERC & other States. The comparison of the fuel cost and variable cost component in the States where the generic tariff order for FY 2018-19 is determined is as given below:

State	Fuel Cost by CERC (Rs./MT)	Fuel Cost by SERC (Rs./MT)	Variable cost component by SERC (Rs./Unit)
Karnataka	3073.05	2500.00	3.36
Tamil Nadu	2826.05	2967.35	3.96
Maharashtra	3512.09	4091.02	5.29

From the above, it is seen that the biomass fuel cost considered by Hon. Commission is higher.

MSEDCL suggest that the Hon. Commission may consider the fuel cost of Rs. 3512.09/ MT in line with the CERC order for FY 2018-19.

The Hon'ble Commission is requested to give due consideration to the above comments/ suggestions while passing the RE Tariff order for FY 2018-19.



Chief Engineer (Power Purchase)

Place : Mumbai

Date : 30.07.2018