



(A Govt. of Maharashtra Undertaking)  
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No.: CE/RE/Draft Generic Tariff Order/ 8114

Date: 22.03.2019

To,  
The Secretary,  
Maharashtra Electricity Regulatory Commission,  
Centre No. 1, 13<sup>th</sup> Floor,  
World Trade Centre,  
Cuff Parade, Mumbai - 400005

**Sub:** - Comments on MERC Draft order dated 01.03.2019 on determination of Generic Tariffs for Renewable Energy for FY 2019-20 (Case No. 52 of 2019)

**Ref:** -

1. MERC, Public notice dated 1<sup>st</sup> March 2019 vide Advt. No.23/2019-20

Sir,

This is with reference to MERC's public notice under reference with regards to seeking comments and suggestions of stakeholders on "Draft Generic Tariff Order for Renewable Energy Technologies for FY 2019-20" in Case No. 52 of 2019 for FY 2019-20 within Maharashtra.

MSEDCL submits that in the RE Generic Tariff Order of the last three (3) years i.e. FY 2017-18, FY 2018-19 & FY 2019-20, the Hon'ble CERC has stated that it shall determine project specific tariff for all RE technologies except for Small Hydro, Biomass with Rankine Cycle, Non-fossil fuel based co-generation, Biomass Gasifier and Biogas based projects. Therefore MSEDCL requests the Hon'ble Commission to adopt the same principle and methodology as adopted by the Hon'ble CERC. However, if Hon'ble MERC still wants to determine the Generic Tariff for RE sources, MSEDCL submits its comments on the Draft Order.

Considering the significance of certain key points of the Draft Order, MSEDCL has briefly provided some of its comments herein under in order to ensure addressing of the same in final MERC Generic Tariff Order for Renewable Energy Technologies for FY 2019-20:

**1. EPA Term of Wind Energy Projects –**

For Wind Projects having capacity below the threshold limit for participating in competitive bidding process, the Tariff and Terms and Conditions of EPA shall be identical to the Terms and Conditions of the competitively bade EPA which at present is Rs 2.52 /kWh for an EPA period of 8 years.

Wind power projects participated in the said competitive bidding were existing wind power projects and had already completed 13 years of operation since their commissioning. Since the said Draft Tariff Order for FY 2019-20 is applicable to new wind power projects that are to be commissioned in FY 2019-20, therefore the tariff of INR 2.52/kWh or any Tariff as adopted in subsequent orders should be applicable for an EPA term of 25 years. This will ensure optimum utilization of the wind power projects by procuring competitive power for longer periods resulting in reduction in the power purchase cost and hence the benefit of such lower tariffs shall be passed on to the end consumers.

**2. Tariff for Solar Photo Voltaic Projects –**

For Solar PV power projects having capacity below the threshold limit for participating in competitive bidding process, the Tariff and Terms and Conditions of EPA shall be identical to the Terms and Conditions of the EPA of the competitive bidding with the latest tariff being Rs 3.29/kWh.

MSEDCL would like to submit that the tariff discovered in the latest competitive bidding conducted by MSEDCL for procurement of 1000 MW solar power is INR 2.74/kWh and the same may be considered while finalizing the RE Tariff Order for FY 2019-20. This shall enable purchasing RE power at low tariffs resulting in reduction in the power purchase cost and hence the benefit of such lower tariffs shall be passed on to the end consumers.

**3. Variable Charge for Non-Fossil Fuel-Based Co-Generation Projects –**

The Hon'ble Commission has not determined the Variable Charge component of the Tariff for existing Bagasse - based projects commissioned prior to FY 2019-20. MSEDCL submits that earlier the Hon'ble Commission, every year, determined the Variable Charge Component of Tariff for existing bagasse – based projects commissioned prior to the year for which the Generic Tariff Order has been issued for and MSEDCL purchases electricity from such projects at this variable charge in addition to the fixed charge that is determined as per the Generic Order in the year of commissioning of the project. It is therefore requested to the Hon'ble Commission to kindly clarify the same.

**4. Tariff for non-fossil fuel-based co-generation plants using Biomass –**

MSEDCL requests the Hon'ble Commission to allow DISCOMs to purchase the Biomass Power compulsorily through competitive bidding process only, as the fuel costs varies across the state and in other states and the consumers of MSEDCL may be benefited through the low and competitively Tariff discovered.

**5. Return on Equity –**

The Hon'ble Commission has considered ROE at 16% for the determination of generic tariff in the said Draft Order. MSEDCL submits that ROE to be considered as 14% which is to be further grossed up with prevailing tax rate while determining

generic tariff similar to Regulation 16 (2) of CERC RE Regulations, wherein pre – tax ROE has been considered at 14%. Further, renewable energy rich states similar to Maharashtra like Gujarat and Karnataka have also considered ROE of 14% plus taxes while determining generic tariff. Additionally, in the light of reduced bank interest rate, the historical trend and regulatory space over the past years, it seems that market is matured enough for renewable market whereby the pertaining risk has been mitigated to a large extent.

**6. Sharing of CDM Benefits –**

MERC's Draft Order states that as per Regulation 22, all risks, costs and efforts associated with the availing of carbon credits shall be borne by the Project Entity. The entire proceeds of carbon credit from CDM project shall be retained by it.

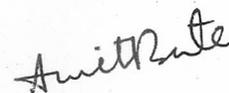
MSEDCL submits that as per the Forum of Regulators recommendation, CDM benefits should be shared on gross basis starting from 100% to developers in the first year and thereafter reducing by 10% every year till the sharing becomes equal (50:50) between the developer and the consumer in the sixth year.

Thereafter, the sharing of CDM benefits will remain equal till such time the benefits accrue. In view of the above, MSEDCL submits that Hon'ble Commission may also adopt the same policy and allow MSEDCL to share the CDM benefits.

The detailed comments / suggestions of MSEDCL are enclosed herewith as **Annexure A**. It is kindly requested that the same may please be taken on record and are considered while deciding the principle and methodology to be adopted for tariff determination in the Final Tariff Order for FY 2019-20.

Thanking You,

Yours Faithfully



Chief Engineer (Renewable Energy)

## Annexure A - Comments on MERC Draft RE Generic Tariff order for FY 2019-20

Comments on the Generic Tariff Order are as under:-

Reference	As per Draft Order	Comments
<b>EPA Term for Wind Power Projects</b>	In the said Draft Order, Hon'ble Commission has ruled that for Wind Projects having capacity below the threshold limit for participating in competitive bidding process, the Tariff and Terms and Conditions of EPA shall be identical to the Terms and Conditions of the competitively bade EPA. As the latest competitive bidding Tariff for Wind Energy and as adopted by the Commission is Rs 2.52 /kWh for MSEDCL (Order dated 25 September, 2018 in Case No. 252 of 2018) for an EPA period of 8 years.	The EPA term for the competitive bidding in which Tariff of INR 2.52/kWh was discovered and was adopted by the Hon'ble Commission in its Order dated 25 September, 2018 in Case No. 252 of 2018 is for a period of 8 years only. MSEDCL submits that the wind power projects that participated in the said competitive bidding were existing wind power projects that had already completed 13 years of operation since their commissioning and were not new power projects. Since the said Draft Tariff Order for FY20 is applicable to wind power projects that are to be commissioned in FY 2019-20, therefore the tariff of INR 2.52/kWh or any Tariff as adopted in subsequent orders should be for an EPA term of 25 years as the life of wind power projects is much higher than 8 years. This will ensure optimum utilization of the wind power projects by procuring competitive power for longer periods resulting in reduction in the power purchase cost and hence the benefit of such lower tariffs shall be passed on to the end consumers. MSEDCL further submits that stipulating the EPA period as 25 years would also ensure that issues such as determination of tariff and signing of new EPAs post expiry shall not arise later on like the present situation wherein a number of wind power project's EPAs with MSEDCL.
<b>Tariff for Solar PV Projects</b>	In the said Draft Order, Hon'ble Commission has ruled that for Solar PV power projects having capacity below the threshold limit for participating in competitive bidding process, the Tariff and Terms and Conditions of EPA shall be identical to the Terms and Conditions of the EPA of the competitive bidding with the latest tariff being Rs 3.29 /kWh for MSEDCL (Order dated 15 February, 2019 in Case No. 7 of 2019).	As per the Draft Order, the Commission has stated the latest Tariff discovered in competitive bidding for solar energy and as adopted by the Commission is Rs 3.29 /kWh for MSEDCL (Order dated 15 February, 2019 in Case No. 7 of 2019). MSEDCL would like to submit that the tariff discovered in the latest competitive bidding conducted by MSEDCL for procurement of 1000 MW solar power is INR 2.74/kWh and the same may be considered while finalizing the RE Tariff Order for FY 2019-20. This shall enable purchasing RE power at low tariffs resulting in reduction in the power purchase cost and hence the

## Annexure A - Comments on MERC Draft RE Generic Tariff order for FY 2019-20

Reference	As per Draft Order	Comments
		benefit of such lower tariffs shall be passed on to the end consumers.
<b>Variable Charge for Non-Fossil Fuel-Based Co-Generation Projects</b>	The Hon'ble Commission has not determined the Variable Charge component of the Tariff for existing Bagasse - based projects commissioned prior to FY 2019-20.	MSEDCL submits that earlier the Hon'ble Commission, every year, determined the Variable Charge Component of Tariff for existing bagasse – based projects commissioned prior to the year for which the Generic Tariff Order has been issued for and MSEDCL purchases electricity from such projects at this variable charge in addition to the fixed charge that is determined as per the Generic Order in the year of commissioning of the project. It is therefore requested to the Hon'ble Commission to kindly clarify the same and determine the Variable Charge for existing bagasse - based power projects commissioned prior to FY 2019-20.
<b>Interest on Loan</b>	As per clause 1.3.3, Hon'ble Commission has considered interest on loan at the rate of 11.31% p.a. assuming the average 1 year MCLR of SBI of 8.31% plus 300 basis points.	MSEDCL submits that the interest on loan considered is very high and considering the developments in the recent past with regards to banking sector, interest rate considered in said Draft order is not in line with the current trend of lower interest rates of banks. Moreover, the CERC on 17.04.2017 had notified the Terms and Conditions for Tariff determination from Renewable Energy Sources Regulations, 2017 wherein Regulation 14 specifies that the interest on loan shall be considered at the rate of average 6 months MCLR of SBI plus 200 basis points for determination of tariff. Hence, the CERC has considered interest on loan at the rate of 10.41% in its Draft Generic Tariff order for Renewable Energy for FY 2019-20.  In view of this, MSEDCL submits that Hon'ble Commission may adopt the same methodology as adopted by CERC as given above while ascertaining the rate of interest on loan. Hence the rate of interest on loan to be determined by considering 1 year SBI MCLR (as considered by this Hon'ble Commission) plus 200 basis points which comes out to be 10.31% (8.31%+200 basis point) or lower as the case may be considering the market scenario of rate of interest at which funds are available.
<b>Interest on</b>	As per Clause 1.3.4, Interest on Working Capital to	MSEDCL submits that the provisions of resetting the normative cost of

## Annexure A - Comments on MERC Draft RE Generic Tariff order for FY 2019-20

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<b>Working Capital</b>	be worked out at the rate of 11.81% which has been worked out considering 1 year SBI MCLR (i.e. 8.31%) plus 350 basis points.	working capital on a frequent basis shall be kept to gauge and incorporate market sentiments. Therefore, in line with comments submitted above for "Interest on Loan", rate of Interest on working capital may also be arrived by considering 1 year SBI MCLR (as considered by this Hon'ble Commission) plus 250 basis points. So the interest on working capital comes out to be 10.81% (8.31%+250 basis point) instead of 11.81% as mentioned in the said Draft Order.
<b>Return on Equity</b>	Hon'ble Commission has considered ROE of 16% for the determination of generic tariff in the said Draft Order.	<p>Hon'ble Commission has grossed up ROE of 16% with tax rate while determining generic tariff. However, as per regulation 16 (2) of CERC RE Regulations, the ROE rate of 14% is to be grossed up by prevailing tax rate as on 1st April of previous year.</p> <p>Further, renewable energy rich states similar to Maharashtra like Gujarat and Karnataka have also considered ROE of 14% plus taxes while determining generic tariff.</p> <p>In the light of reduced bank interest rate, the historical trend and regulatory space over the past years, it seems that market is matured enough for renewable market whereby the pertaining risk has been mitigated to a large extent. Further, paying infirm power generation sources with such high returns does not make economic and financial sense for the utility as well as consumers and therefore, the return on equity needs to be reduced further which needs to be in line with the Government Securities risk free return plus certain premium.</p> <p>In view of above, MSEDCL submit that ROE to be considered as 14% which is to be grossed up with prevailing tax rate instead of 16% while determining generic tariff.</p>
<b>Fuel Cost for Biomass Project</b>	Fuel cost for Biomass Project is considered Rs. 4295.57/MT, accordingly variable cost rate of Rs.5.55/unit is derived.	MSEDCL submits that, Karnataka has already started competitive bidding for Biomass Project, while Gujarat has lower fuel cost considered by CERC and by GERC as well, hence comparatively lower variable cost determined by the CERC and GERC. Comparison of the fuel cost rate

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		<p>considered by CERC and GERC is given below.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">State</th> <th style="text-align: center;">Fuel Cost by CERC (Draft Order) Rs./MT</th> <th style="text-align: center;">Fuel Cost by SERC Rs./MT</th> <th style="text-align: center;">Variable Cost component by SERC Rs./Unit</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Karnataka</td> <td style="text-align: center;">3,388.04</td> <td style="text-align: center;">2643</td> <td style="text-align: center;">3.55</td> </tr> <tr> <td style="text-align: center;">Gujarat (Other state)</td> <td style="text-align: center;">3,388.04</td> <td style="text-align: center;">3,764.00</td> <td style="text-align: center;">4.01-4.17</td> </tr> <tr> <td style="text-align: center;">Maharashtra</td> <td style="text-align: center;">3,687.69</td> <td style="text-align: center;">4,295.57</td> <td style="text-align: center;">5.55</td> </tr> <tr> <td style="text-align: center;">Rajasthan</td> <td style="text-align: center;">3147.20</td> <td style="text-align: center;">2958.25 (FY2018-19)</td> <td style="text-align: center;">4.12 (FY2018-19)</td> </tr> </tbody> </table> <p>From the above table, it can be observed that Karnataka has considered the lowest fuel rate, as a result of which the variable cost rate is lower as compared to the variable cost rate in Maharashtra. Further, Gujarat has also considered lower fuel rate resulting in variable cost rate lower than that in Maharashtra.</p> <p>Moreover, the fuel cost rate for Maharashtra considered in CERC draft generic tariff for FY20 is lower by approximately 16%.</p> <p>In view above, MSEDCL submit that fuel cost needs to be reduces in order to bring it at par with the cost considered by CERC in its Draft generic tariff order for FY 2019-20.</p> <p>MSEDCL also requests the Hon'ble Commission to allow DISCOMs to purchase the Biomass Power compulsorily through competitive bidding process only, as the fuel costs varies across the state and in other states and the consumers of MSEDCL may be benefited through the low and competitively Tariff discovered.</p>				State	Fuel Cost by CERC (Draft Order) Rs./MT	Fuel Cost by SERC Rs./MT	Variable Cost component by SERC Rs./Unit	Karnataka	3,388.04	2643	3.55	Gujarat (Other state)	3,388.04	3,764.00	4.01-4.17	Maharashtra	3,687.69	4,295.57	5.55	Rajasthan	3147.20	2958.25 (FY2018-19)	4.12 (FY2018-19)
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<b>Capital cost of various RE technologies</b>	Hon'ble Commission has considered capital cost for various RE technologies after escalating in line with WPI index as per formula specified in the	MSEDCL submits that capital cost may be reduced considering the technological advancement and prevailing competition in the RE sector. Resultantly generic tariff may be reduced to that extent.																							

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	<p>Regulation. Comparison of the capital cost considered for FY 2019-20 and capital cost of FY 2018-19 is given below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Particulars</th> <th style="text-align: center;">Category</th> <th style="text-align: center;">MERC Draft Order For FY 19-20</th> <th style="text-align: center;">MERC Order For FY 18-19</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><b>Capital Cost</b></td> <td style="text-align: center;">-</td> <td colspan="2" style="text-align: center;"><b>Rs. Lacs/MW</b></td> </tr> <tr> <td rowspan="2" style="text-align: center;">Small Hydro Projects</td> <td style="text-align: center;">Below 5 MW</td> <td style="text-align: center;">636.01</td> <td style="text-align: center;">605.28</td> </tr> <tr> <td style="text-align: center;">5MW to 25 MW</td> <td style="text-align: center;">578.66</td> <td style="text-align: center;">550.7</td> </tr> <tr> <td style="text-align: center;">Biomass Power Projects</td> <td></td> <td style="text-align: center;">521.91</td> <td style="text-align: center;">460.96</td> </tr> </tbody> </table>	Particulars	Category	MERC Draft Order For FY 19-20	MERC Order For FY 18-19	<b>Capital Cost</b>	-	<b>Rs. Lacs/MW</b>		Small Hydro Projects	Below 5 MW	636.01	605.28	5MW to 25 MW	578.66	550.7	Biomass Power Projects		521.91	460.96	<p>MSEDCL further submits that the capital cost of Biomass based power projects with Water-Cooled Condensers based on Rankine cycle technology that has been considered by Gujarat Electricity Regulatory Commission (GERC) is INR 477 Lakhs/MW which is considerably lower than the capital cost considered by MERC in the Draft Order.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: center;">Particulars</th> <th style="text-align: center;">MERC Draft Order For FY 19-20</th> <th style="text-align: center;">Gujarat Order For FY 19-20</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><b>Capital Cost</b></td> <td style="text-align: center;">521.91</td> <td style="text-align: center;">477</td> </tr> </tbody> </table>	Particulars	MERC Draft Order For FY 19-20	Gujarat Order For FY 19-20	<b>Capital Cost</b>	521.91	477
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<b>Sharing of CDM Benefits</b>	<p>As per Regulation 22, all risks, costs and efforts associated with the availing of carbon credits shall be borne by the Project Entity. The entire proceeds of carbon credit from CDM project shall be retained by it.</p>	<p>MSEDCL submits that as per the Forum of Regulators recommendation, CDM benefits should be shared on gross basis starting from 100% to developers in the first year and thereafter reducing by 10% every year till the sharing becomes equal (50:50) between the developer and the consumer in the sixth year. Thereafter, the sharing of CDM benefits will remain equal till such time the benefits accrue.</p> <p>In view of the above, MSEDCL submits that Hon'ble Commission may also adopt the same policy and allow MSEDCL to share the CDM benefits. The Hon'ble Commission is requested to give due consideration to the above comments/ suggestions while passing the RE Tariff order for FY 2019-20.</p>																									