



# **Explanatory Memorandum**

**FOR**

**Draft Himachal Pradesh Electricity Regulatory Commission (Promotion of Generation from the Renewable Energy Sources and Terms and Conditions for Tariff Determination) (Seventh Amendment) Regulations, 2023.**

**20<sup>th</sup> July, 2023**

**HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION  
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**Explanatory Memorandum for the Draft Himachal Pradesh Electricity Regulatory Commission (Promotion of Generation from the Renewable Energy Sources and Terms and Conditions for Tariff Determination) (Seventh Amendment) Regulations, 2023.**

1. The Himachal Pradesh Electricity Regulatory Commission (hereinafter referred as “the Commission”) made the Himachal Pradesh Electricity Regulatory Commission (Promotion of Generation from the Renewable Energy Sources and Terms and Conditions for Tariff Determination) Regulations, 2017 (hereinafter referred as “RE Tariff Regulations, 2017”), published in the Rajpatra, Himachal Pradesh, dated 23<sup>rd</sup> November, 2017. The said Regulations were amended from time to time.
2. The 3<sup>rd</sup> control period under the said RE Tariff Regulations, 2017, which started from 01.10.2020, shall expire on 30.09.2023. Thus, the Commission is mandated to fix the duration of new control period and also to specify the financial parameters of various RE technologies as well as the technical parameters of small hydro projects for the 4<sup>th</sup> control period and data provided by the Directorate of Energy, Government of Himachal Pradesh.
3. The CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020 (the CERC RE Tariff Regulations, 2020) were applicable upto 31.03.2023, the Central Commission has further extended the control period of said Regulations upto 30.09.2023 (i.e. six months).
4. The Commission, keeping in view that the next control period shall commence from 1<sup>st</sup> October, 2023, proposes to specify the financial parameters for all RE technologies for 4<sup>th</sup> control period and the technical parameters for SHPs by considering various State specific aspects. Accordingly the 7<sup>th</sup> amendment Regulations have been made. Main features of the draft Regulations are as follows:-
  - 4.1 **Definitions:-**

Minor changes in the definitions of the terms ‘Date of commencement of operation of the project’, ‘Installed capacity’ and ‘Renewable Energy Certificate mechanism’ or ‘REC mechanism’ have been made in the draft Regulations so as to provide more clarity.
  - 4.2 **Special provision for SHPs covered in one time amnesty scheme:-**

Specific provision about the applicability of tariff in case of the SHPs covered in the One Time Amnesty Scheme notified by the State Government have been made in the draft Regulations.
  - 4.3 **Control Period:-**

The 3<sup>rd</sup> control period for SHPs comprises a period of three years i.e. 01.10.2020 to 30.09.2023. The duration of the 4<sup>th</sup> control period has been

proposed to be retained as three years i.e. from 01.10.2023 to 31.03.2027 in the draft amendment Regulations.

#### 4.4 **Financial Parameters for determination of generic levelled tariff for the RE technologies including SHPs**

The financial parameters specified for the 3<sup>rd</sup> control period have, by and large, been retained in the draft amendment Regulations for the 4<sup>th</sup> control period as well. Certain minor need based changes have however been made to provide more clarity.

#### 4.5 **Normative capital cost of SHPs:-**

4.5.1 The normative capital cost for the SHPs in respect of 3<sup>rd</sup> control period was specified as Rs. 11 Crore for all category of SHPs

4.5.2 As per the data provided by the Directorate of Energy, the capital cost at which the TEC/financial appraisal/technical concurrence has been accorded to the SHPs during the years i.e. 2020-21, 2021-22, 2022-23 is tabulated below:-

<b>Capital cost as per TEC/financial appraisal accorded by DoE</b>		
<b>Project upto 5 MW Capacity</b>		
<b>Year</b>	<b>Total Capacity (MW)</b>	<b>Average per MW Capital Cost (in Rs. Lacs.)</b>
2020-21	30.05	939.92
2021-22	69.05	1034.35
2022-23	27.90	1090.67
2023- till date	22.50	1094.54
<b>Project above 5 MW Capacity</b>		
2020-21	46.70	1010.13
2021-22	58.00	970.83
2022-23	102.90	820.60

4.5.3 The average per MW cost as per the aforesaid data is thus significantly lower than the normative capital cost of Rs. 11 Crore per MW specified for the 3<sup>rd</sup> control period. The Commission observes that the said cost of Rs. 11 Crore was specified in 2020 after allowing an increase of about 10% for first two categories and 22% for third category over and above the cost specified for the immediately prior control period.

4.5.4 The Commission feels that since as per the Tariff Policy notified by the Government of India in the times to come the purchase of power by the licensee may have to be made through the competitive bidding and the

purchase of power at the rates which are significantly higher than the average cost of power purchase may not be feasible. The Commission also feels that in order to retain its market share as compare to other emerging RE technologies, it is imperative that the small hydro projects are planned, designed and executed in the most efficient manner so that the SHP technology remains viable and competitive as compared to other RE technologies. In order to provide an edge to SHP technology over other technology, the possibility of providing peaking storage capacities should also explored. The Commission may also not be averse to incentivize such projects with peaking capacity.

4.5.5 In view of above, it is necessary that the normative capital cost should not be fixed at such higher rates which may make the projects unmarketable and which may discourage the licensee to procure power from the SHPs at the rates which may considered as expensive as compared to the same from other RE technologies. Such a situation may adversely affect the growth of SHPs technology.

4.5.6 In view of above, the Commission, after taking into consideration all relevant factors and the interest of the growth of SHPs, has proposed in the draft amendment Regulations to retain the normative capital cost for all categories of SHPs as Rs. 11 Crore per MW.

4.6 **Return on Equity.-** In the 3<sup>rd</sup> control period, the RoE has been specified as 14% per annum. The same has been consider for the 4<sup>th</sup> control period however, instead of grossing up of RoE with MAT and Corporate Tax, it is proposed for reimbursement of the same as per actual MAT and Corporate Tax paid during the tariff period.

4.7 **O&M Charges for SHPs.-**

4.7.1 The per MW O&M charges for the 3<sup>rd</sup> control period were specified as Rs. 41.78 , 41.78, 31.34 Lacs for the three categories of the SHPs alongwith escalation @ 3.84% per annum during the tariff period. The same, after allowing the escalation of 3.84% per annum, for 3 years have been

included as Rs. 46.78, 46.78, 35.09 Lacs respectively in the draft amendment Regulations.

4.7.2 In order to facilitate the SHPs having marginal capacities in the 3<sup>rd</sup> category of SHPs. A new provision has been made in the draft Regulations to provide that the Commission may, in order to offset the effect of reduction in O&M charges on the generic levelled tariff in cases of small hydro projects having capacities of 5 MW and above but not exceeding 10 MW, evolve suitable mechanism, while determining the generic levelled tariff, so as to provide for adjustment to the maximum extent of 10 paise per kWh to 3 paise per kWh, linked with the project capacity, in the generic levelled tariff in case of small hydro projects having capacities in the said range.

#### **5. Other Technical Parameters for SHPs**

Other technical parameters for the SHPs, as specified for the 3<sup>rd</sup> control period have been retained in the draft amendment Regulations.

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