HYDRO POWER
in partnership with river

Ref No.:SHPLLP/2023-2024/159
Date :12.03.2024

The Secretary
Central electricity Regulatory Commission
3rd& 4th Floor, Chandralok Building
36, Janpath Road, New Delhi -110001

Sub : Comments and suggestions on draft CERC (Terms and conditions for tariff determination from Renewable Energy Sources) Regulations, 2024

Ref : Public Notice No. RA-14026(11)/1/2023-CERC dated 17.02.2024

Hon'ble Sir,

The Regulations play a vital role in deciding the future of the nation's impending hydropower projects. The nation's hydropower industry as a whole is working extremely hard to overcome various obstacles in project funding, building, and, ultimately, obtaining fair rates for long-term sustainable plant operations. As a result, despite government efforts to boost the proportion of renewable energy projects in power generation, very few have been implemented in recent years.Hydro power sector is one of the key players of Indian RE sector. It is difficult to increase the share of RE power unless strong regulatory boost provided to this sector.

Hence, We request the Commission to please consider the below mentioned suggestions for determination of tariff for small hydro plants.

1. **Capital cost:**

Draft Regulation 27: Commission's Proposal:

(1) The normative capital cost for small hydro projects during the first year of the Control Period, i.e. the financial year 2024-25, shall be as follows:

SARDA HYDRO POWER LLP RAIPUR (C.G.)

SARDA HYDRO POWER LLP
Formerly Sarda Hydro Power Private Limited (LLP Identity No.: AAO-4263, A Partnership Registered under LLP Act 2008)

Regd. Office : HIG Duplex House No.-2A, Moul Shree Vihar, Purena, Raipur 492001 (C.G.)
Account Division : 3rd Floor, Vanijya Bhawan, Devendra Nagar Square, Jail Road, Raipur 492001 (C.G.)
Tel 91 771 2214100 / 200, Email : technical@cgpower.co.in
GSTIN : 22ADXFS7298G1Z9

Region	Project Size	Capital Cost (Rs. lakh /MW)
Himachal Pradesh, Uttarakhand, West Bengal, Union Territory of Jammu and Kashmir, Union Territory of Ladakh and North Eastern States	Below 5 MW	1200
	5 MW to 25 MW	1200
Other States	Below 5 MW	890
	5 MW to 25 MW	1027

Proposed Regulations:

As the cost of basic construction materialslike Cement, steel and labour has increased substantially, the cost of implementing small hydro projects has increased significantly. Please refer the rise in Wholesale price Indexas tabulated below:

Material	WPI/CPI (2018-19)	WPI/CPI (2022-23)	% Increase
Cement	112.6	135.2	20
Mild Steel	110.2	149.7	36
Angles, Channels, steel (coated/not)	117.9	160.3	36
Bitumen	85.6	131.4	54
Petrol	88.4	164.1	86
Paint	112.7	146.1	30
Plain bricks	94.1	95.0	1
Industrial workers	104.8	131.7	26

As civil cost has increased substantially, the capital cost of a project is increased. There is minimal disparity in topographical challenges between plain and hilly regions, that became the reason that the capital costsfor hydro power projects in both plain and hilly regions are converging to become equivalent. The anticipated capital cost of our projects which are <25 MW installed capacity, falls under the category of other states which are of Low Head and high discharge projects, estimated to be in the vicinity of Rs 13 Cr/MW. The projectcost is experiencing escalation due to following reasons:

i. As the width of the river in Chhattisgarh region is too large, the substantial width of the river necessities the construction of significant scale of civil infrastructures (like barrage and non-over flow sections (NOF)), thereby leading to escalated capital cost.

ii. For low head and high discharge projects, the RPM is low. The lower RPM and larger turbine components necessitate heavier civil structures, such as the tunnel and penstock, are much more extensive in comparison with high head and low discharge projects.

Hence, we request we request the Hon'ble Commission to kindly consider normative capital cost of Rs. 13 Cr/MW for SHP of 5 MW to 25 MW in other States.

2. **Capital cost Indexation:**

Clause (2) of draft Regulation 27 provides as below:

The capital cost for small hydro projects as specified for the first year of the Control Period shall remain valid for the entire duration of the Control Period unless reviewed earlier by the Commission.

Proposed Regulations:

We request the Commission to **please modify this clause and incorporate provision for capital cost indexation mechanism based on whole sale price index**for arriving at the capital cost of the projects which commission during the second and third year of the control period.

3. **Auxiliary Consumption:**

Draft Regulation 29: Commission's Proposal:

Normative auxiliary consumption for the small hydro projects shall be considered as 1.0%.

Proposed Regulations:

we request the Hon'ble Commission to allow auxiliary consumption as 1.50%. As auxiliary consumption for small hydro power projects is high due to the following reasons:

i. Variations in electricity demand require the small hydro power plant to operate at partial or standby mode, leading to increased auxiliary consumption

ii. There is a significant auxiliary consumption due to the usage of sophisticated automation and control systems monitoring and operation, in our already existing hydro power plants of <25MW installed capacity in Chhattisgarh region.

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4. Operation and Maintenance expenses:

Draft regulation 30: Commission's Proposal:

(1) Normative O&M Expenses for the first year of the Control Period, i.e. financial year 2024-25 shall be as under:

Region	***Project Size***	***Capital Cost (Rs. lakh /MW)***
Himachal Pradesh, Uttarakhand, West Bengal, Union Territory of Jammu and Kashmir, Union Territory of Ladakh and North Eastern States	*Below 5 MW*	*49.54*
	5 MW to 25 MW	*37.15*
Other States	*Below 5 MW*	*39.90*
	5 MW to 25 MW	***28.90***

Proposed Regulations:

We request the Commission to **to consider normative O&M expenses for project of 5 MW to 25 MW in 'Other States' as Rs. 35 lakh/MW** for small hydro plants due to following factors:

i. The cost of hiring and retaining people has significantly increased after COVID-19. In order to keep skilled laborers at remote project sites, they must receive competitive pay.

ii. Increasing events of natural calamities and climate change has necessitated maintaining higher inventory levels of stores and spares. Spare parts like turbine components (blades, runners), generator components, bearings, breakers, seals etc. are essential to be procured in advance to ensure seamless operational continuity and mitigating the risk of unforeseen disruption.

iii. There is an increase in o&m charges as Insurance costs have been increased after the tragedies like the Rishiganga Hydro Power Project Tragedy (2021) in Uttarakhand and Teesta river flooding in 2023 causing submergence of entire powerhouse of 1200 MW Teesta III HEP in Sikkim.

iv. The cost associated with procuring the spare parts has experienced a noticeable increase in last five years.

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5. **Return on Equity**

Draft regulation 16: Return on Equity

Commission's Proposal:

The normative Return on Equity for renewable energy projects other than smallhydro projects shall be 14%, and that for the small hydro projects shall be14.5%.

Proposed Regulations:

We request to increase the pre-tax ROE to minimum 16% for small hydro power projects. Considering the difficulties faced by the developers in implementing and operating hydro power projects, unless a higher ROE is assured, this sector cannot expect better investment opportunities. Amongst all RE projects, hydro projects are the riskiest assets. Apart from execution challenges, the risk of unforeseen natural calamities causing catastrophic damage to the plant has become very common. No investor shall undertake investment decision unless optimum return is assured. Merely, additional allowance of 0.50% for hydro projects proposed in the draft regulations is not at all justified.

6. **Suggestion for review of definition of 'Small hydro projects'**

Our recommendation is to classify any SHP ranging from 5 MW to 50 MW as small hydro power plants. This will deter the inclination to undervalue the Plant's installed capacity by up to 25 MW in order to take advantage of the SHPs' preferential tariff benefits. This will guarantee the best possible recovery of the plant's overheads and advance the industry's general efficiency.

We request the Hon'ble Commission to please consider our above submissions for determination of tariff for small hydro plants.

Thanking You,

Yours Faithfully,

For, Sarda Hydro Power LLP,

Shilpa Rathod
Authorized Signatory

SARDA HYDRO POWER LLP
RAIPUR (C.G.)