



**ORDER
OF THE
WEST BENGAL ELECTRICITY REGULATORY COMMISSION
IN CASE NO. OA-329/19-20**

IN REGARD TO THE APPLICATION SUBMITTED BY WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED (WBSEDCL) FOR "IN-PRINCIPLE" CLEARANCE IN RESPECT OF INVESTMENT PROPOSAL FOR INSTALLATION AND COMMISSIONING OF 24 KW TEESTA MICRO HYDEL POWER PROJECT AT TEESTA CANAL FALL HEP- 1 AT DARJEELING DISTRICT, WEST BENGAL IN TERMS OF REGULATION 2.11.1 OF THE WEST BENGAL ELECTRICITY REGULATORY COMMISSION (TERMS AND CONDITIONS OF TARIFF) REGULATIONS, 2011, AS AMENDED.

PRESENT:

**SRI SUTIRTHA BHATTACHARYA, CHAIRPERSON
SRI DURGADAS GOSWAMI, MEMBER
SRI PULAK KUMAR TEWARI, MEMBER**

DATE: 14.12.2020



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"In-principle" clearance in respect of investment approval for Installation and Commissioning of 24 kW Teesta Micro Hydel Power Project at Teesta Canal Fall HEP – 1 at Darjeeling District, West Bengal by West Bengal State Electricity Distribution Company Limited (WBSEDCL) in terms regulation 2.11.1 of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011 as amended.



Facts in brief:

- 1.0 The West Bengal State Electricity Distribution Company Limited (WBSEDCL) submitted an application dated 14.02.2020 for "in-principle" clearance i.r.o investment approval for Installation and Commissioning of 24 kW Teesta Micro Hydel Power Project at Teesta Canal Fall HEP – 1 at Darjeeling District, West Bengal in terms of regulation 2.8.1.4 of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011, as amended (in short 'Tariff Regulation'). The Commission vide letter dated 14.09.2020 directed WBSEDCL to resubmit the application for investment approval as per relevant provision of the Tariff Regulation since the application submitted under regulation 2.8.1.4 is related to two-part investment approval for conventional sources of generation within the state including hydro generating station above 25 MW of installed capacity. Subsequently, WBSEDCL vide letter dated 01.10.2020 resubmitted their application for "in-principle" clearance i.r.o investment approval for Installation and Commissioning of 24 kW Teesta Micro Hydel Power Project in terms of regulation 2.11.1 of the Tariff Regulation. The application dated 01.10.2020 has been admitted by the Commission in Case No. OA-329/19-20 on 06.11.2020.
- 2.0 WBSEDCL along with their application dated 01.10.2020 submitted a DPR for the scheme. Brief description of the submission made by WBSEDCL in the application is as follows:
- 2.1 WBSEDCL is currently operating Teesta Canal Fall Hydroelectric Project at Darjeeling District, West Bengal. In the power station – 1 of the existing Teesta Canal Fall Hydroelectric Project, WBSEDCL found that, if water is tapped just upstream of existing Bridge over Head Race Canal, a low head turbine could be installed in the available area and with the available discharge for development of Ultra Low Head Hydro Power Plant.
- 2.2 WBSEDCL prepared a detailed project report that envisaged the suitability of the proposed site along with designing size and shape of the plant, power availability, financial details and accordingly submitted the project proposal to the Department of Power & NES, Government of West Bengal (GoWB).





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2.3 Dept. of Power & NES, GoWB accorded administrative approval vide Order No. 15-POW-13012 (11)/31/2019-SECTION (POWER) dated 21.01.2020 to provide fund of Rs. 71.154 Lakh as per estimated project cost of DPR.

2.4 The salient technical and financial features of the project as stated by WBSEDCL are as below:

Technical features: Capacity of the power plant: 1 x 24 kW; Grid Interfacing Voltage: 0.415 kV; Type of Turbine: Gravitational Water Vortex Power Plant; Efficiency of Turbine: 80% Annual Energy Exported to Grid: 0.20 MU.

Financial features: Total project cost is Rs. 71.154 Lakh with 100% State Government grant.

2.5 The Board of Directors, WBSEDCL in its 91st meeting dated 23.06.2020 also approved the project cost of Rs. 71.154 Lakh including GST with 100 % Government Financial Assistance.

2.6 WBSEDCL further submitted the benefits of installing and commissioning of 24 kW Micro Hydel Project:

- a) Utilization of water from Head Race Channel of existing Power Station (TCFHP) for Ultra Low Head Turbine operated under low head and low discharge.
- b) The Gravitational Water Ultra Low head Power Plant is an economic and clean energy system allowing for the conversion of the low-head potential energy into kinetic energy to drive power turbines by means of gravitation water flow.
- c) No large dams or embankment constructions are needed.
- d) Simple design with low investment and maintenance.
- e) Unused hydro power potentials at innumerable river gradient steps can be utilized.
- f) Saving for fossil fuel and reduction of greenhouse gas emissions.
- g) Periodic rise in coal price consequent to consistent hike in electricity tariff can be contained by developing such hydro plants.





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2.7 WBSEDCL also stated that the project cost will be capitalized considering state grant since the project is entirely financed by the State Government. Only O&M cost will be applicable after commissioning and handing over the project to WBSEDCL.

2.8 In view of the above, WBSEDCL has prayed before the Commission to –

Accord 'in-principle' approval for installation and commissioning of 24 kW Micro Hydel Power Project at Teesta Canal Fall HEP – 1 at Darjeeling District, West Bengal amounting to Rs. 71.154 Lakh in terms of regulation 2.11.1 of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011, as amended.

Observations of the Commission:

- 3.0 The Commission observes from the application that Dept. of Power & NES, Government of West Bengal (GoWB) vide their letter 15-POW-13012(11)/31/2019-SECTION(POWER) dated 21.01.2020 had accorded administrative approval of Rs 71.154 Lakh for setting up 24 kW Teesta Micro Hydel Power Project in Darjeeling district by WBSEDCL for providing electricity in remote areas.
- 4.0 The Commission also observes that the project is entirely financed by the State Government and the project will be capitalized considering the state grant. Therefore, there is no capital investment by the licensee in the project. The licensee is capitalizing the asset against the grant from the government following due procedures. Only, O&M cost will be applicable after commissioning and handing over the project to WBSEDCL and thus there will be little impact in tariff. Further the plant being environment friendly and is being connected at 0.415 kV system near consumption point, the T&D loss will also be less. Thus, it will be ultimately beneficial to the consumers of WBSEDCL.
- 5.0 In terms of regulation 3.1 read with regulation 3.2 of RE Regulations the RPO target for the year 2020-2021 of WBSEDCL comes to 9.00 % including solar target of 0.50%.
- 6.0 Now, from WBSEDCL's letter dated 11.11.2020, it is observed that WBSEDCL has met 3.62% of total RPO out of the target 8.00% of which 0.51% was solar against target solar of 0.50% for 2019 – 20. Thus, during 2019-20 WBSEDCL has fulfilled their solar RPO target





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but is not able to achieve their total RPO target. Thus, the power generated from the micro hydel project will help WBSEDCL to fulfill its total RPO target.

Order:

- 7.0 The Commission hereby accords approval to the proposal contained in application of WBSEDCL dated 01.10.2020 in terms of regulation 2.11.1 of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011 as amended and noted that the State Government sanctioned Rs. 71.154 Lakh i.e. 100% of the project cost for setting up the 24 kW Teesta Micro Hydel power Project in Darjeeling district, West Bengal.
- 8.0 WBSEDCL is directed to submit the COD before the Commission on completion of the project.
- 9.0 In case of escalation in project cost, WBSEDCL shall take due approval from the Commission before capitalization of assets.
- 10.0 The petition is thus disposed of. Let a copy of the order be served upon WBSEDCL.

Sd/-
(PULAK KUMAR TEWARI)
MEMBER

Sd/-
(DURGADAS GOSWAMI)
MEMBER

Sd/-
(SUTIRTHA BHATTACHARYA)
CHAIRPERSON

Dated: 14.12.2020

(T. K. Mukherjee)
Secretary

