



सत्यमेव जयते

**ORDER
OF THE
WEST BENGAL ELECTRICITY REGULATORY COMMISSION
IN CASE NO. OA-269/17-18**

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 10 MW SOLAR PV POWER PLANT ON THE TAILRACE CANAL OF TCFHP, STAGE II POWER STATION AT HAPTIAGACHH OF CHOPRA BLOCK, DISTRICT UTTAR DINAJPUR, 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.

PRESENT:

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

DATE: 28.01.2020



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"In-principle" clearance in respect of investment proposal for Installation and Commissioning of 10 MW Solar PV Power Plant on the Tailrace Canal of TCFHP, Stage II Power Station at Haptiagachh of Chopra Block of Uttar Dinajpur District, West Bengal by West Bengal State Electricity Distribution Company Limited (WBSEDCL) in terms 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 a petition dated 07.02.2018 for "in-principle" clearance i.r.o investment approval for Installation and Commissioning of 10 MW (AC) Solar PV Power Plant on the Tailrace Canal of TCFHP, Stage II Power Station at Haptiagachh of Chopra Block of Uttar Dinajpur 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 Regulations'). WBSEDCL further submitted a supplementary petition dated 26.04.2019 with revised project cost along with redetermined levelised tariff. WBSEDCL subsequently submitted another supplementary petition dated 09.08.2019 requesting to accord 'in-principle' clearance in terms of Regulation 2.11.1 of Tariff Regulations instead of Regulation 2.8.1.4 of Tariff Regulations. The petition dated 07.02.2018 and the supplementary petitions dated 26.04.2019 and 09.08.2019 together are termed as 'the application' and has been admitted by the Commission in Case No. OA-269/17-18 on 24.10.2019. WBSEDCL subsequently vide supplementary petition dated 16.12.2019 have requested to modify certain paragraphs of their supplementary petitions dated 26.04.2019.
- 2.0 WBSEDCL along with their application dated 07.02.2018 submitted a DPR for the scheme. Brief description of the submission made by WBSEDCL in the application read with supplementary petition dated 16.12.2019 is as follows:
 - 2.1 Department of Power & NES, GoWB has entrusted WBSEDCL to take necessary measure for setting up of large as well as small scale grid connected solar PV plants at different districts of the State.
 - 2.2 Accordingly, WBSEDCL has taken up the project of installation and commissioning of 10 MW (AC) Solar PV power plant on the Tailrace Canal of TCFHP, Stage II Power Station at Haptiagachh of Chopra Block of Uttar Dinajpur District.





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2.3 Dept. of Power & NES, GoWB has accorded administrative approval vide their letter no. 98-PO/P/C-II/1B-27/2016 dated 06.07.2017 at a project cost of Rs. 88.35 Crores, out of which Rs. 61.85 Crores (70% of the project cost) to be arranged from NABARD under RIDF Tranche XXII and balance Rs. 26.50 Crores (30% of the project cost) as additional assistance by the State Government. Dept. of Power & NES, GoWB accordingly issued sanction cum allotment order vide their letter 79 (Sanc)-POW-13012(11)/8/2018-SECTION (POWER) dated 28.02.2019 to provide fund of Rs. 88.35 Crores. Board of Directors, WBSEDCL also accorded approval of the project on 20.01.2018 at a cost of Rs. 82.45 Crore (excluding taxes) and Rs. 84.49 Crores (inclusive of taxes as prevailed at that time).

WBSEDCL submitted that the total cost of the project inclusive of solar modules and estimated evacuation cost comes to Rs. 83.37 Crore including Tax Liabilities. WBSEDCL also stated that the total awarded value is within the administrative approval of Rs. 88.35 Crore accorded by Dept. of Power & NES, GoWB. WBSEDCL also submitted a breakup of total project cost as below:

SI No.	Description	Cost (in Rs. Lakh)
A.	Solar Modules	
(i)	Supply of Material	6404.59
(ii)	Installation & Commissioning	1315.70
(iii)	Operation and Maintenance (5 years)	524.50
	Sub-Total	8244.79
B.	Evacuation Cost	
(i)	Cost of Material including Sundries for Drawal of 33 kV HT OH Line	80.00
(ii)	Erection Charges, etc	11.80
(iii)	Cess	0.90
	Sub-Total	92.70
	Total Cost of Project	8337.49

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





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Technical features: Capacity of the power plant: 10 MW (AC); Grid Interfacing Voltage: 33 kV; Capacity Utilization Factor (CUF): 18.49%; Performance ratio: 78.12%; Annual Energy Exported to Grid: 16.196 MU; Project commissioning period: 1 year;

Financial features: Total project cost is Rs. 83.37 Crore with 100% grant fund.

- 2.5 WBSEDCL further submitted that such investment will finally lead to following advantages:
- Saving of Land use (Conventionally 5 acres/MW).
 - Saving of Fossil Fuel and reduction of Green House Gas (GHG) emissions.
 - Reduction in transmission & distribution loss as generation is closer to consumption points.
 - Saving of estimated 14.00 Million Litres/ Year canal water evaporation.
 - Generation of higher efficiency solar power compared to terrestrial solar power plants due to cooling effect on solar panels through evaporating canal water.
 - No rehabilitation and resettlement issues.
- 2.6 WBSEDCL vide their 2nd supplementary petition dated 09.08.2019 further requested the Commission to accord 'in-principle' clearance against their application i.r.o the investment approval for Installation and Commissioning of 10 MW (AC) Solar PV Power Plant on the Tailrace Canal of TCFHP, Stage II Power Station at Haptiagachh of Chopra Block of Uttar Dinajpur District, West Bengal in terms of regulation 2.11.1 of Tariff Regulations, 2011 instead of Regulation 2.8.1.4 of Tariff Regulations, 2011, as Regulation 2.8.1.4 as mentioned in applications dated 07.02.2018 and 26.04.2019 covers different stages of investment approval related to mainly Thermal Generating Stations and its components, and its not applicable for investment approval of solar power plant.





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- 3.0 WBSEDCL vide letter dated 21.10.2019 further submitted that the project is entirely financed by State Government including O&M cost of 5 years operation after commissioning and handing over the project to WBSEDCL. The project cost will accordingly be capitalized considering the state grant. Only O&M cost for such solar project will be applicable after 5 years of operation from commissioning and handing over the project to WBSEDCL. WBSEDCL in their letter also mentioned that, due to misunderstanding, the work of the generation project has been already started based on the approval of Board of Directors of the Company. However, WBSEDCL has already issued instruction to all directorates to start work of such type of generation project in future only after approval of the Commission.

Observations of the Commission:

- 4.0 The Commission observes from the application that Dept. of Power & NES, Government of West Bengal (GoWB) had entrusted WBSEDCL to take necessary measures for setting up of large as well as small scale grid connected solar PV plant at different district of West Bengal. Accordingly, WBSEDCL has submitted a project proposal for setting up 10 MW solar PV power plant on the Tailrace Canal of TCFHP, Stage II Power Station at Haptiagachh of Chopra Block of Uttar Dinajpur District, West Bengal with an estimation of Rs. 88.35 Crore (including tax) to the Dept. of Power & NES, GoWB. Subsequently, Dept. of Power & NES, Government of West Bengal vide their letter 98-PO/P/C-II/1B-27/2016 dated 06.07.2017 accorded administrative approval of Rs 88.35 Crore (including tax), out of which Rs. 61.85 Crores (70% of the project cost) to be arranged from NABARD under RIDF Tranche XXII and balance Rs. 26.50 Crores (30% of the project cost) as additional assistance by the State Government, in favour of WBSEDCL for setting up such 10 MW solar PV power plant on the Tailrace Canal of TCFHP, Stage II Power Station at Haptiagachh of Chopra Block of Uttar Dinajpur District, West Bengal.
- 5.0 WBSEDCL in its supplementary petition dated 16.12.2019 submitted that the contract to the lowest bidder for installation of 10 MW solar module including comprehensive O&M for 5 years is Rs. 82.45 Crore (including taxes) and also in the supplementary petition dated





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- 26.04.2019 submitted that the estimated cost for evacuation of generated power is Rs.0.93 Crore (including taxes). WBSEDCL further submitted that the overall project cost comprising solar PV power plant and evacuation system comes to Rs. 83.37 Crore, which is well within the administratively approved amount of Rs. 88.35 Crore.
- 6.0 The Commission observes that the project is entirely financed by the State Government including it's O&M expenses for 5 years operation after commissioning and handing over the project to WBSEDCL and the project will be capitalized considering the state grant. Therefore, there is no capital investment by the licensee in the project. Further, O&M cost for five years is also included within the project cost which is given as a grant by the Government. In fact, the licensee is capitalizing the asset against the grant from the government following due procedures. Further the plant being connected at 33kV system near consumption point the T&D loss will also be less. Thus, it will be ultimately beneficial to the consumers of WBSEDCL.
- 7.0 Now it is required to examine the requirement of installation and commissioning of 10MW solar power by WBSEDCL in terms of clause (i) of regulation 3.4 of the West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2013 (herein after referred as 'RE Regulations'.)
- 8.0 In terms of regulation 3.1 read with regulation 3.2 of RE Regulations the RPO target for the year 2019-2020 WBSEDCL comes to 8.00 % including solar target of 0.50%.
- 9.0 From the APR petition for the year 2017-18 it is evident that WBSEDCL has met 4.05% of total RPO out of the target 6.00% of which 0.38% was solar against target solar of 0.30%. Thus, during 2017-18 WBSEDCL has fulfilled their solar RPO target but is not able to achieve their total RPO target.
- 10.0 WBSEDCL in this petition has proposed for installation of 10 MW solar PV plant on the Tailrace Canal of TCFHP, Stage II Power Station at Haptiagachh of Chopra Block of Uttar



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Dinajpur District, West Bengal to fulfil their RPO requirement. The Commission further observes that approval was given to WBSEDCL for setting up of 9 nos. of 10 MW Solar PV Plant in different districts in West Bengal with proposed total annual generation from the nine (9) projects as 136.90 MU. Considering the generation from 10 MW Solar PV Power Plant on the Tailrace Canal of TCFHP Stage II Power Station at Haptiagachh, the total annual generation from all the ten (10) projects proposed is 153.09 MU.

11.0 Commission observes that, in terms of regulation 3.3 of the RE Regulations, licensee can purchase additional solar power to fulfil its overall RPO provided such purchase of solar energy beyond the target of any year shall not exceed 0.25% of total consumption in that area of supply of distribution licensee for that year or target of solar RPO for that year whichever is higher. Considering the last five years' sales to consumers by WBSEDCL and their procurement of power from the existing solar sources, the proposed 153.09 MU of annual generation from all the 10 projects stated in paragraph 10.0 above, including the 10 MW plant on the Tailrace Canal of TCFHP, Stage II Power Station at Haptiagachh of Chopra Block of Uttar Dinajpur District, West Bengal appears to be within the limit specified in regulation 3.3 of the RE Regulations.

12.0 However, regarding fulfilment of total RPO, the Commission in previous orders of investment approval for solar PV Plant dated 23.10.2019 has already directed WBSEDCL to submit a report on future power procurement from the solar and other renewable and co-generation sources.

Order:

13.0 The Commission hereby accords approval to the proposal contained in the letter of WBSEDCL dated 21.10.2019 and subsequent petitions dated 07.02.2018, 26.04.2019, 09.08.2019 and 16.12.2019 and notes that the State Government has sanctioned 100% funding of the project cost for setting up of the 10 MW Solar PV Power Plant on the Tailrace





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Canal of TCFHP, Stage II Power Station at Haptiagachh of Chopra Block of Uttar Dinajpur District, West Bengal in the following manner:

SI No.	Description	Cost (in Rs. Lakh)
A.	Solar Modules (inclusive of Tax and 5 years O&M)	8244.79
B.	Evacuation Cost (inclusive of Tax)	92.70
Total Cost of Project		8337.49

14.0 The Commission also gives the following directions:

14.1 On completion of the project, WBSEDCL shall intimate the date of commercial operation (COD) to the Commission.

14.2 The cost related to maintenance of the Solar PV Power Plant for initial five years from the date of commissioning of the power plant shall not be claimed in tariff for the said period as the project cost includes 5 years' operation and maintenance costs of the total solar PV power plant. The Licensee shall include the requisite O&M cost at appropriate time in the ARR.

14.3 In future, WBSEDCL shall not undertake any progress towards implementation of a project before obtaining prior approval of the Commission as per related provisions of Tariff Regulations.

15.0 The petition is thus disposed off. Let a copy of the order be served upon WBSEDCL.

Sd/-
(PULAK KUMAR TEWARI)
MEMBER

Sd/-
(DURGADAS GOSWAMI)
MEMBER

Sd/-
(SUTIRTHA BHATTACHARYA)
CHAIRPERSON

Dated: 28.01.2020

(T.K. MUKHERJEE)
SECRETARY

