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ORDER

OF THE

WEST BENGAL ELECTRICITY REGULATORY COMMISSION

IN THE MATTER OF

CASE NO: OA-464/23-24

IN REGARD TO THE APPLICATION SUBMITTED BY THE WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED (WBSETCL) FOR APPROVAL OF INCURRING CAPITAL EXPENDITURE OF AN ESTIMATED COST RS. 16319.34 LAKH FOR IMPLEMENTATION OF DIFFERENT NEW TRANSMISSION SCHEME IN TERMS OF REGULATION 2.8.2.3 AND PARAGRAPH 4.1 (VI) OF SCHEDULE – 2 OF THE WEST BENGAL ELECTRICITY REGULATORY COMMISSION (TERMS AND CONDITION OF TARIFF) REGULATIONS, 2011, AS AMENDED.

PRESENT:

DR. MALLELA VENKATESWARA RAO, CHAIRPERSON

DATE: 06.01.2025



In regard to the application submitted by the West Bengal State Electricity Transmission Company Limited (WBSETCL) for approval of incurring Capital Expenditure of an estimated cost Rs. 16319.34 Lakh for implementation of different new transmission scheme in terms of regulation 2.8.2.3 and Paragraph 4.1 (vi) of Schedule – 2 of the West Bengal Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2011, as amended.



FACTS IN BRIEF

- 1.0 The West Bengal State Electricity Transmission Company Limited (in short 'WBSETCL') submitted an application dated 16.10.2023 for the approval of incurring Capital Expenditure of an estimated cost Rs. 16319.34 Lakh for implementation of different new transmission scheme along with the Detailed Project Reports (DPR) in terms of regulation 2.8.2.3 and Paragraph 4.1 (vi) of Schedule – 2 of the West Bengal Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2011, as amended. The Commission has admitted the application on 12.12.2023 and registered in Case No. OA-464/23-24.
- 2.0 WBSETCL published the gist of the application dated 16.10.2023 in The Telegraph, The Times of India, Bartaman, Sangbad Pratidin on 13.03.2024 inviting suggestions, objections and comments from the public and stake holders. No objections/suggestions have been received from any stake holder on the above subject by this Commission till last date of submission.
- 3.0 Following New Transmission schemes are included in this petition:

Sl. No.	Type of Works
1.	Construction of 132 kV D/C transmission line from Baruipur 220 kV GIS to suitable point of Serakol - Hotor 132 kV S/C transmission line (on D/C tower) for establishment of Baruipur - Serakol 132 kV D/C connectivity.
2.	Construction of 220KV D/C Transmission Line from Maithon 400KV Sub- Station (PGCIL) to Asansol 220KV Sub-Station along with construction of 02 nos. 220KV Line Bays at Asansol 220/132 KV Sub-Station and construction of 02 nos. 220KV Line Bays by PGCIL at Maithon 400 KV Sub-Station of PGCIL under deposit scheme on consultancy basis.

- 4.0 A brief description of each of the scheme is given hereunder:
 - A. Scheme: Construction of 132 kV D/C transmission line from Baruipur 220 kV GIS to suitable point of Serakol - Hotor 132 kV S/C transmission line (on D/C tower) for establishment of Baruipur - Serakol 132 kV D/C connectivity (D/C RL :: 5.60 Km (OH), S/C RL :: 0.40 Km {OH}):



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Description: Baruipur 220/132 kV GIS, charged on 18.07.2022, is getting power from Subhasgram 400/220 kV Sub-station of PGCIL. To feed power from Baruipur 220 kV GIS to Serakol 132 kV Sub-station, work of Baruipur - Serakol 132 kV D/C line with HTLS conductor is under progress.

Hotor TSS is just around 5 Km (radially) away from Baruipur 220 kV GIS and Serakol - Hotor 132 kV S/C line is constructed on double circuit tower.

Now, to relieve Laxmikantapur 220/132 kV Sub-station from load of Serakol and Falta 132 kV Sub-stations, route of Serakol - Hotor 132 kV S/C line is going to be utilized to establish another 132 kV D/C connectivity between Baruipur and Serakol by drawing 132 kV D/C line from Baruipur to a suitable point of Serakol - Hotor 132 kV S/C line and stringing of second circuit from that point to serakol 132 kV Sub-station. After establishment of proposed Baruipur - Serakol 132 kV D/C line, Hotor TSS will receive power by tee off from one of these D/C lines.

B. Scheme: Construction of 220KV D/C Transmission Line from Maithon 400KV Sub-Station (PGCIL) to Asansol 220KV Sub-Station along with construction of 02 nos. 220KV Line Bays at Asansol 220/132 KV Sub-Station and construction of 02 nos. 220KV Line Bays by PGCIL at Maithon 400 KV Sub-Station of PGCIL under deposit scheme on consultancy basis.

Description: Presently power supply in Burdwan West is met from Asansol 220/132/33 KV sub-station having installed capacity of 320 (2 x 160) MVA, 220/132 kV Transformers and 263 (4 x SO+ 2 x 31.5) MVA, 132/33 kV Transformers. Maximum demand of the Sub-Station has already reached around 244 MVA (June 2023). Work is under progress for one new 220/33 kV Sub-station at Mongalpur and up-gradation of AB-zone 132 kV Sub-station to 220 kV in West Burdwan district to meet up-coming new loads, which are expected to be commissioned by 2023-24 (anticipated as per progress of work till date). Different bulk consumers with a large amount of power demand have also applied for connectivity.

Asansol will be able to cater its peak demand during normal condition but during outage of one circuit of STPS - Asansol 220 kV D/C line there will be overloading on the other circuit. To



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avoid this contingency and considering future load growth both domestic as well as industrial bulk load, for reliable operation of the grid in compliance of N-1 contingency, one 220 KV connectivity from a strong source at Asansol 220KV Sub-Station was urgently required.

It is observed that Maithon 400 kV Sub-Station of POWERGRID is situated around 14 Km (radially) away from Asansol 220 kV Sub-station and space is available at Maithon Sub-station for construction of 02 nos. 220 kV bays. Proposed 220 kV D/C connectivity with PGCIL Maithon 400 kV Sub-station along with allocation of space for construction of 2 nos. of 220 kV bays at the Sub-station have already been approved in the 7th Consultation Meeting for Evolving Transmission Schemes in Eastern Region (CMETS-ER) of Central Transmission Utility India Limited (CTUIL) held on 31st May 2022. 7th CMETS-ER on 31.05.2022.

In view of above, establishment of 220 KV D/C connectivity of Asansol 220 kV Sub-station with Maithon (PG) 400 kV Sub-station along with construction of 02 nos. 220 kV Line Bay at Asansol 220/132 kV Sub-station and construction of 02 nos. 220KV bays at Maithon 400 KV Sub-Station of PGCIL (which will be executed by PGCIL under deposit scheme on consultancy basis) has been considered for reliable power supply in and around Asansol area.

5.0 Status of land:

For establishment of above-mentioned connectivity, no land is required to be acquired. For drawl of 132 kV line Cost of Way-leave / crop compensation will be arranged as per prevailing norms / within the provision of the turnkey Supply & Erection Order.

6.0 Approval Reference of all these Projects:

Sl.no.	Name of the Project	Approved by	Approval Ref.
1.	Construction of 132 kV D/C transmission line from Baruipur 220 kV GIS to suitable point of Serakol - Hotor 132 kV S/C transmission line (on D/C tower) for establishment of Baruipur - Serakol 132 kV D/C connectivity.	BOD, WBSETCL	Agenda Item No.-18 of 89th meeting of BOD held on 13/07/2023



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2.	Construction of 02 nos. 220KV Line Bay at Asansol 220/132 KV Sub-Station for connectivity to 400/220 KV Maithon Sub-Station (PGCIL).	BOD, WBSETCL	Agenda Item No.-24 of 89th meeting of BOD held on 13/01/2023
	220KV D/C Transmission Line from Maithon 400KV Sub-Station (PGCIL) to Asansol 220KV Sub-Station. (D/C RL 17.50 Km (OH), D/C RL -2.10 Km (UG Cable).		
	Construction of 02 nos. 220KV Line Bays by PGCIL at Maithon 400 KV Sub- Station of PGCIL under deposit scheme on consultancy basis.		Agenda Item No.-20 of 90th meeting of BOD held on 23/08/2023

7.0 Time frame:

The Scheme is proposed to be completed within 18 months from the date of placement of LOA. It is expected that the Transmission Scheme is scheduled to be commissioned in next two years within 2024-25.

8.0 Construction of this Connectivity will add the benefits stated hereunder:

- Reduce the probability of occurrence of no power or restricted power due to source constraint / failure of transmission line; thus, additional sale of energy by WBSEDCL in the project command area.
- Increase in network reliability which will reduce the customer interruption frequency index and customer interruption duration index.
- Voltage profile in that area will improve along with system stability. Technical energy losses will also reduce.
- Better reliability & quality of power will promote socio-economic development in the project area

9.0 Funding arrangement:

The project is proposed to be funded through WBSETCL's Internal Resources (IR) and through domestic borrowings. The equity component (30%) is proposed to be met through Internal Resources (IR) and the loan component (70%) through domestic borrowings from any Financial Institute with a payback period of 9 years 6 months.



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Interest During Construction based on the assumption that the project being financed from equity and loan in the ratio of 30:70 and the equity component being released simultaneously along with the loan component, the interest during construction works out to Rs 1.06 Crore (For Baruipur Serakol scheme) and Rs. 12.52 Crore (for bays at Asansol 220KV SS and Line part). The interest rate for the loan amount has been considered @ 9.50% for domestic funding.

Therefore, the total project cost including IDC emerges to Rs. 1,040.02 Lakh (including IDC Rs. 106.16 Lakh) (For Baruipur Serakol scheme) and Rs. 15,279.32 Lakh (including IDC of Rs. 1,251.58 Lakh and deposit work of WBSETCL of Rs. 1074.60 Lakh which will be executed by PGCIL).

10.0 Status of tender:

Tender for above-mentioned transmission scheme will be floated shortly after completion of Pre-Tender Engineering stage.

11.0 Basis of Cost Estimate:

The unit rates for all equipment for transmission line & Bays have been considered from Latest Cost Data (which was prepared based on the unit equipment rate obtained from Procurement Department of WBSETCL). The cost estimates for equipment are inclusive of all Taxes & Duties.

Cost data reference date: Approved cost data dt. 05.06.2023.

Estimation submitted by PGCIL for bays at Maithon 400 KV Sub-Station.

12.0 Financial implication:

Sl. No.	Description	Amount [Rs. in Lakhs]
1.	i. Construction of 132 kV D/C transmission line from Baruipur 220 kV GIS to suitable point of Serakol - Hotor 132 kV S/C transmission line (on D/C tower) for establishment of Baruipur - Serakol 132 kV D/C connectivity (D/C RL 5.60 Km (OH), S/C RL 0.40 Km (OH)).	848.96
	ii. Supervision Charge(@ 10%)	84.90
	Total Project Cost including Supervision	933.86
	iii. IDC	106.16
	Project Cost including IDC & Supervision (Part-A)	1040.02



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2.	i.	Construction of 02 nos. 220KV Line Bay at Asansol 220/132 KV Sub-Station for connectivity to 4001220 KV Maithon Sub- Station (PGCIL).	414.82
	ii.	Supervision Charge (@ 10%)	41.48
		Total Project Cost including Supervision	456.30
	iii.	IDC	48.44
		Project Cost including IDC & Supervision (Part-B)	504.74
	i.	220KV DIC Transmission Line from Maithon 400KV Sub- Station (PGCIL) to Asansol 220KV Sub-Station. (DIC RL 17.50 Km (OH), DIC RL 2.10 Km (UG Cable).	11360.76
	ii.	Supervision Charge(@ 10%)	1136.08
		Total Project Cost including Supervision	12496.84
	iii.	IDC	1203.14
		Project Cost including IDC & Supervision (Part-C)	13699.98
	i.	Construction of 02 nos. 220KV Line Bays by Maithon 400 KV Sub-Station of PGCIL under deposit scheme on consultancy basis	886.00
	ii.	Contingency @3%	27.00
	iii.	Consultancy Fee 15% including 18% GST	161.60
		Total Project Cost including Consultancy Charges (Part-D)	1074.60
		Total Project Cost (B+C+D)	15279.32
Grand Total (Part- A+B+C+D)			16319.34

13.0 In response to letter no. WBERC/OA-464/23-24/5270 dated 16.07.2024 regarding non-consideration /inclusion of the stringing of 2nd circuit from Serakol 132 KV sub-station to suitable point of Serakol-Hotor 132 KV line on D/C tower, it is explained by WBSETCL in its supplementary application vide their letter no. CE/CPD/WBERC/750 dated 23.07.2024 that the said work will be executed simultaneously as capital project under O&M Dept of WBSETCL since management of shut down of existing sub-station and line can be done easily and judiciously by O&M dept.

OBSERVATIONS OF THE COMMISSION

14.0 The Commission observes that, in terms of Regulation 2.8.2.3 of Tariff Regulations, prior approval of the Commission for investment in transmission is mandatory after 31.12.2007.



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- 15.0 The Commission also observes that the projects will cater reliable and quality power in and around the areas of the construction of the substations to the existing and upcoming consumers, benefiting the consumers at the end.

ORDER

- 16.0 The Commission after consideration all the facts and the project reports submitted by WBSETCL in their petition dated 16.10.2023, approves the investment proposal of Rs. 16319.34 Lakh in terms of regulation 2.8.2.3 of the West Bengal Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2011, as amended.
- 17.0 The Petition is thus disposed of.
- 18.0 A copy of the order shall be posted in the website of the Commission.
- 19.0 WBSETCL shall download the copy of the order from the website of the Commission and act on it. Certified copy of the order, if applied for, be given to the parties on completion of formalities laid down in the West Bengal Electricity Regulatory Commission (Conduct of Business) Regulations, 2013, as amended and on submission of necessary fees.

Sd/-
(DR. MALLELA VENKATESWARA RAO)
CHAIRPERSON

Dated: 06.01.2025

Sd/-
(SECRETARY)