



KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Companies Act, 1956)

Reg. Office: Vidyuthi Bhavanam, Pattom, Thiruvananthapuram -- 695 004

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ABSTRACT

Upgradation of Edappon – Mavelikkara 66kV Line to 110kV DC using ACSR WOLF Conductor -
Revised Administrative Sanction accorded – Orders issued.

Corporate Office (SBU-T)

B.O.(DB)No.501/2020/D(T&SO)/T1/Edapon-Mavelikkara Upgrdn/2020-21/ Thiruvananthapuram dated 29.07.2020

- Read: 1. BO (FTD) No.3333/2016 /D(T&SO)/T1/ALPA/EDPZN-MVKA/2016-17 dated 26.11.2016
2. Note No.D(T,SO&S)/T1/ALPA/Edappon/19-20/2246 dated 24.03.2020 of the Director(T&SO)
3. Note No. CE(TS)/EE1/AEEIV/Edappon-Mavelikkara/2020-21/165 dated 07.05.2020 of the Chief Engineer (Trans. South)
4. Note No. CE(TS)/EE1/AEEIV/Edappon-Mavelikkara/2020-21/240 dated 19.05.2020 of the Chief Engineer (Trans. South)
5. Note No.D(T&SO)/T1/Edapon-Mavelikkara Upgrdn/20-21/179 dated 04.06.2020 of the Director (T&SO) (Agenda Item No.9- 06/20)
6. Note No.D(T&SO)/T1/Edapon-Mavelikkara Upgrdn/20-21/371 dated 19.06.2020 of the Chairman & Managing Director.
7. Proceedings of the 54th meeting of the Board of Directors held on 17.07.2020 (Agenda Item No.10-07/2020)

ORDER

The Administrative Sanction was accorded for an amount of Rs.9.34 Crore for the Upgradation of Edappon – Mavelikkara 66kV Line to 110kV DC. The proposal was to construct the new 110kV DC line along the RoW of the existing line using normal towers. Following the Administrative Sanction, works are initiated and on preparation of the tower schedule, it is noticed that most of the locations in the line route are in marshy area where the 220kV towers are required for maintaining statutory clearance. But due to space constraints, setting the foundations for the 220kV towers at many locations is practically difficult. Also, the average cross arm width of 220kV towers is large which requires additional RoW. As such the Chief Engineer has reported that going for narrow based towers is the only practical solution.

As a result of the change in the type of towers, a revision in the estimate is necessitated. Also, there is no provision in the original estimate for special type of foundations required for the narrow based towers. As there is considerable increase in the cost of construction of the line on account of the above deviations, the office of the Director (Trans. & SO) had directed the Chief Engineer (Trans. South) to explore the possibility of upgrading the line on the existing towers using insulated cross arms. However, the Chief Engineer (Trans. South) as per note read as 3rd above has reported that most of the existing towers are old

and need to be replaced as per the site conditions for maintaining statutory clearances and hence the proposal for using insulated cross arms is not feasible.

Accordingly, the estimate was revised based on the latest Labour Data (revised vide BO (FTD)No.271/2020/D(T&SO)/T5/18-19/Transmission Cost Data dated 13/04/2020) and incorporating the provisions for Narrow Based Towers and special foundations. The revised estimate comes to Rs.20.85Cr. The major reason for the increase in the estimate is attributable to revision of labour data for the transmission line works, inclusion of narrow based tower due to site conditions and provision for special foundations etc. The Chief Engineer (Trans. South), as per note read as 4th above, has requested revised Administrative Sanction for the subject work.

The work is necessary for satisfying the N-1 criteria and also for preventing overloading in the existing 110kV LILO feeder to Mavelikkara Substation. The project is targeted for completion during 2021-22. The expenditure is to be included in the budget for the year 2020-21.

The abstract of the revised estimate is attached as Annexure.

The matter was placed before Full Time Directors as per note read as 5th above for obtaining sanction from the Board of Directors for the revised estimate amounting to Rs. 20.85Cr. (Rupees Twenty Crore Eighty Five Lakh Only) for the Upgradation of Edappon – Mavelikkara 66kV DC Line to 110kV DC.

The Full Time Directors in the meeting held on 11.06.2020 discussed the matter and decided to place the matter before the Director Board for approval, as the sanction is beyond the limit of the Full Time Directors.

Accordingly, the matter was placed before the Board of Directors as per note read as 6th above and

having considered the matter in detail, the Board of Directors in the meeting held on 17.07.2020, **RESOLVED** to issue Revised Administrative Sanction for an estimate amount of Rs.20.85Crore (Rupees Twenty Crore and Eighty Five Lakh only) for the Upgradation of Edappon – Mavelikkara 66kV DC Line to 110kV DC under Transmission Circle, Alappuzha.

Orders are issued accordingly.

By Order of the Director Board,
Sd/

LEKHA.G

Company Secretary (In-Charge)

To : The Chief Engineer (Transmission South)

Copy to: The Deputy Chief Engineer,Transmission Circle Alappuzha/Poovanthuruthu
The Financial Adviser/ The Chief Internal Auditor/ The Company Secretary
The RCAO/ RAO.

The TA to Chairman & MD/ D(T&SO)/D(D,IT&HRM)/ D(G-C)/ D(G-E& SCM),D(P&S) PA to D(F)
Fair Copy Superintendent/Library/Stock File.

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REVISED ESTIMATE [WITH NB TOWER]

Annexure

Name of Work: Upgradation of 10.82km Edappon-Mavelikkara 66kV DC line to 110kV - Revised Estimate for revised AS

Sl. NO	Qty	Description	Unit	Rate (Rs in lakh)	Amount (Rs in lakh)
Construction of 10.82 KM 66 KV DC Line (In 110kV standard)					
Estimate for 1km line					
1	33	Tower	MT	0.7977	26.32
2		Tower accessories	LS		0.71
3	6.09	Power Conductor (ACSR Wolf)	KM	1.1300	6.88
4		Power Conductor accessories	LS		0.64
5	1.02	Earth Wire	KM	0.4678	0.48
6		Earth Wire accessories	LS		0.15
7	40	Insulators	E	0.0250	1.00
		Sub Total (A)			36.18
B		Erection & Commissioning 7.5% of A (B)	As per actual working estimate prepared Rs.1122 Lakhs / 10.82km		103.69
C		Pile Foundation & Surveys (C)			
D		Dismantling and transportation of old 66kV tower and accessories(D)			
E		Insurance , Transporting & contingencies 6% of A (E)			2.17
F		Tower Footing + diminished value compensations(F)	LS		10.00
G		Sub Total G = (A+B+C+D+E+F)			152.04
H		Overhead and Supervision Charges H = 10% of G			15.20
I		GST@18% of (B+C+D+E+F+H)			23.59
		Total=(G+H+I)			190.84
		Total (1km)			190.84
		For 10.82 KM DC LINE (Total)			2064.89
		Provision towards inspection fee of Electrical Inspectorate, PTCC, Railway and other unforeseen items			20.11
		Cost of dismantled Tower Parts, Conductors & Insulators	As per actual valuation(Per Km)		3.80
GRAND TOTAL				Rs in Lakhs	2,085.00
(Rupees Twenty Crore Eighty Five Lakh Only)					

Forwarded / By Order


 Assistant Executive Engineer