



## KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Componies Act, 1956)
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## **ABSTRACT**

TransGriz 2.0 - Green Energy Corridor projects - Revised Administrative Sanction — Accorded — Orders issued

## Corporate Office (SBU-T)

B.O (DB) No. 725 /2022/DIRTSO-AE5/2022/1731) Thiruvananthapuram, Dated: 26.08.2022

Read: 1. 5.O.(DE No.394/2020[D(T&SO)/T7/TransGrid/GEC/20-21] dated 08.06.2020

- Letter No. DB14/CE/TG/DPR Revision/2022-23/319 dated 31.C5.2022 of the Chief Engineer, TransGrid
- Note No. D(T,SC,P&S)/T6/TG/GEC-Revised AS/2022-23/2015 cated 26.07.2022 of the Chairman and Managing Director
- 4 Precedings of the 66th meeting of the Board of Directors held on 27.07.2022 vide Agenda item No. 18-7/2022

## ORDER

KSEBL hac accorded Administrative Sanction as per the B.O. read as 1<sup>st</sup> above for the implementation of Green Power Corridor (GPC) projects proposed under GEC II scheme of MNRE, Government of India for an amount of Rs. 1242.30 Cr. (North Green Corridor - Rs. 813.40 Cr., Attappady Green Corridor - Rs. 233 Cr. and Ramakkalmedu Green Corridor - Rs.195.90 Cr.). The labour portion of the estimates were prepared based on the then prevailing DSR 2016 and the material portion was based on KSEBL Cost Data and PO/WO rates for other GIS equipments/materials excilable at that time.

Due to the adoption of DSR 2018 in KSEBL as per Board Order dated 30.09.2021, considerable variation occurred in the cost of civil portion of the estimates. Also, steel prices increased unprecedentedly due to the ban on import of goods from China as well as COVID-19 pandemic. The steel prices increased by more than 25% as per the IEEMA price variation formulae. Adoption of DSR 2018 and price hike of materials necessitated revision of estimates for GPC projects. Hence, the Chief Engineer (TransGrid), as per letter read as 2<sup>nd</sup> above, submitted revised DPRs of the three GPC projects with new estimates as per DSR 2018 totaling Rs.1457.55 Cr. for issuing revised AS, details of which, are as follows.

North Green Corridor (Rs. 911.80 Cr.) - Proposed as a power highway connecting Kasaragod, Kannur. Wayanad and then to Mysore/ Areekode (Kozhikode)/ Madakkathara (HVDC Thrissur) through the existing 400 kV lines, which will provide access to South Kerala. The project comprises of the components viz. Construction of a 400kV GIS Substation at Payyampally ('Wayanad') - Rs. 205.50 Cr, Construction of 125 km, 400 kV DC Twin HPC-ACSS quad Moose equivalent) line from 400 kV Substation, Payyampally to 400 kV Substation, Karindalam (Kasaragod) - Rs. 679.60 Cr. and Construction of 5.25 km, 220 kV MC line for making LILO arrangement of existing Kaniyampetta - Kadakola line to 400kV Substation, Payyampally - Fs. 26.70 Cr.

Attappady Green Corridor (Rs. 311.11 Cr.) - Attappady area of Palakkad district is energy rich and has an untapped green power potential of about 600 MW. M/s NHPC has already executed an MOU with Government of Kerala to invest Rs.500 Cr. for setting up a 72 MW wind power project in this area and has already micro sited many windmill sites. However, this available potential could not be tapped to the full extent due to absence of adequate power transmission infrastructure. This project envisages the construction of a reliable power transmission corridor capable of transporting up to 200 MW of green power from the Attappady region to grid. This project consists of the elements viz. Construction of 33/220 kV step up substation at Kottathara, Agali - Rs. 60.38 Cr, Construction of 220/110 kV GIS Substation at Mannarkkad - Rs. 67.42 Cr., Construction of 220 kV DC line from Vettathur tap point to 220kV GIS Mannarkkad and Construction of 220 kV DC interconnecting line between the proposed 220kV substations at Mannarkkad and Kottathara - Rs. 183.31 Cr.

Ramakkalmedu Green Corridor (Rs. 234.64 Cr.) - Ramakkalmedu area in Idukki district has an untapped wind potential of around 100 MW and solar potential of about 350 MW, which makes the area ideal for hybrid generation ensuring power output uniformly throughout the year. The RGC project aims at constructing a reliable power transmission corridor capable of transferring the RE power from Ramakkalmedu/ Kattappana/ Vazhathope areas to Kuyilimala (proposed LILO location of 220 kV Udumalpet-Idukki SC feecer) with minimum loss. The project has the components viz:, Construction of 33/110 kV step up substation at Anakkaramedu (near Ramakkalmedu) - Rs. 35.74 Cr., Construction of 9 km, 110 kV DC line from Anakkaramedu to Nedumkandam Substation - Rs. 14.44 Cr., Construction of 2 Nos 110 kV feeder bays at Nedumkandam and Vazhathope Substations - Fs. 18.26 Cr., Construction of 20 km, 220/110 kV MCMV line (upgradation) from Nirmala City (near Kattappana) to Kuyilimala LILO point - Rs. 83.50 Cr. and 5 km, 110 kV DC line from Nirmala City to Kattappana along the right of way of existing 66 kV SC line - Rs. 82.70 Cr.

The revised estimates are prepared for the civil works based on DSR 2018, transmission line data based on DSR 2018 & KSEBL special labour rates. The GIS equipment rates are taken from the latest P.O. rates for Sabari substation package and average purchase order rates of previous TransGrid packages. The work order amount for the construction of 400 kV line from Payyampally to Karindalam is also considered for estimation of NGC project.

Administrative approval has been received from MNRE, GoI (Order dated 04.03.2022) for two of the GPC projects, i.e. AGC and RGC, with a total grant component of Rs. 138.71 Cr. @ 33% of the approved project cost of Rs. 420.32 Cr. (the AS amount for these two projects was Rs.428.90 Cr). As per the guidelines of MNRE, all the packages must be tendered and awarded to the contractor by 31st December, 2023. The DPRs of the projects were already submitted to KSERC for investment approval.

The Full Time Directors in its meeting held on 15.07.2022 examined the proposal for revision of Administrative Sanction in detail and resolved to place the matter before the Board of Directors of KSEBL. Accordingly, the matter was placed before the Board of Directors as per note read as 3rd above.

Having considered the matter in detail, the Board of Directors in the meeting held on 27.07.2022, Resolved to accord revised Administrative Sanction for the following projects under TransGrid 2.0.

North Greer Corridor project for an amount of Rs. 911.80 Crores (Rupees Nine Hundred and Eleven Crores Eighty Lakhs orly) for the works 'Construction of 400 kV GIS Substation at Payyampally, Wayanad, Construction of 125 km 400 kV DC Twin HPC-ACSS (Quad Moose equivalent) line from 400 kV Substation at Payyampally, Wayanad to 400 kV Substation at Karindalam, Kasaragod and construction of 5.25 km, 220 kV MC line for making 220 kV LILO arrangement of Kaniyampetta-Kacakola line to 400 kV Substation, Payyampally'.

Attappady Green Corridor project for an amount of Rs. 311.10 Crores (Rupees Three Hundred and Eleven Crores Ten Lakhs only) for the works 'Construction of 33/220 kV step up substation at Kottathara, Agali, Construction of 220/110 kV GIS at Mannarkkad, Construction of 220 kV DC line from Vettathur tap point to New Mannarkkad GIS and Construction of 220 kV DC line from 220 kV New Mannarkkad GIS to Kottathara substation'.

Ramakkalmedu Green Corridor project for an amount of Rs. 234.64 Crores (Rupees Two Hundred and Thirty Four Crores Sixty Four Lakhs only) for the works 'Construction of 33/110 kV step up substation at Ana-dkaramedu (near Ramakkalmedu), Construct on of 9 km 110 kV DC line from Anakkaramedu to Nedumkandam substation, Construction of 2 Nos, 110 kV feeder bays at Nedumkandam and Vazhathope Substations, Construction of 220/110 kV GIS at Nirmala City (near Kættappana), Construction of 20 km 220/110 kV MCMV line (upgradation) from Nirmala City to Kuyilimala LILO point and Construction of 5 km, 110 kV DC line with ACSR Kundah conductor from Nirmala City to Kattappana along the right of way of existing 66 kV SC line'.

By Order of the Director Board,

Sd/-LEK⊢A G Company Secretary (In-Charge)

To: The Chie Engineer (TransGrid), Shornur

Copy to: The Chief Engineer, Transmission North/ South, The Financial Adviser/ The Chief

Internal Auditor/ The Company Secretary

The Deputy Chief Engineer, TransGrid North/ South

The RCAO/RAO

The TA to CMD/C(T,SO,P&S)/D(D&IT)/D(G-C)/D(G-E)/D(REES,S&W)/PA to D(F &HRM)

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Forwarced / By Order

Assistant Engineer