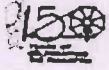




KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Companies Act, 1956) CIN: U40100KL2011SGC027424
Registered Office: Vidyuthi Bhavanam, Pattom, Thiruvananthapuram-695004 Website: www.kseb.in
Phone:(O) +91 471 2514283 E-mail: dgekseb@kseb.in



Abstract

Renovation and Modernization of Stage I units of Idukki HEP (3x130MW) - Additional cost towards increased length of LV Power Cables – excess quantity/extra item - Sanctioned - Orders issued.

Corporate Office (SBU-G/E)

B.O. (FTD)No. 587/2019 (D(GE)/G2/IHEP-RMU /2019-20) Thiruvananthapuram. Dated: 27 - 07 - 2019

- Read:-
1. B.O (DB) No. 2411/2016 (D(GE)/G2/IHEP-RMU/2016-17) dated 16-08-2016.
 2. B.O(FTD) No. 2939/2016 (D(GE)/G2/IHEP-RMU/2016-17) dated 17-10-2016.
 3. B.O.(FTD)No.2935/2017(D(GE)/G2/IHEP-RMU/2017-18) dated 23-11-2017.
 4. B.O(FTD) No. 1972/2018 (D(GE)/G2/IHEP/Rotor poles/2018-19) dated 06-12-2018.
 5. Letter No. 11/AE5/2013/CE(PED)/243 dated 12-06-2019 and No. 303 dated 27-06-2019 of the Chief Engineer (Generation &PED).
 6. Note No. FA/Tender I/66/2019 dated 05-07-2019 of Financial Adviser.
 7. Letter No. 11/AE5/2013/CE(PED)/359 dated 12-07-2019 of the Chief Engineer (Generation &PED).
 8. Note No. D(GE)/G2/IHEP-RMU /2019-20 dated 20-07-2019 of the Director (CP,GE,SCM&S) to the Full Time Directors (Agenda No.60/7/19).

ORDER

The contract for the execution of R&M works of Stage I units of Idukki HEP was awarded to M/s. GE Power India Limited at an amount of Rs. 47,84,59,921/- as per B.O read as 1st above and the Agreement was executed by the Chief Engineer (Projects-Electrical Designs) on 24-09-2016. The R&M works of Unit #3 have been completed and put into service on 18-03-2019.

The Chief Engineer (Generation &PED) vide letter read as 5th paper above reported that as per Vol.III - Technical specification of the Bid Documents, emphasis was mainly placed for replacement of incomer Cables of main LV Panels of common Auxiliary and Stage I Units and accordingly, provision for 4860 metres of Al, PVC insulated Cables comprising of 4 Core and 3.5 Core Cables of large sizes were included in the tender. The incomer Cables of Stage II Units and outgoing cables from various LV Panels had not been considered due to the difficulty in assessment of condition of these LV Cables without availing shutdowns /dismantling the LV Panels. As per the contract Agreement, an amount of Rs. 74,00,817/- including taxes is provided in the schedule.

It is reported that M/s. GEPIL has supplied and laid 7548 metres of LV cables of various sizes which were arrived by after detailed engineering. However, since the detailed design and engineering of incomer cables is in the scope of M/s GEPIL, KSEBL cannot admit any claim for increased length of incomer cables due to change in size, change from three core to single core etc.

M/s. GEPIL as per letter dated 06-11-2018 had intimated that, additional cable length of LV Power Cable is actually required for Renovation works than provided for in the Vol.III of Tender specifications and requested for an amount of Rs. 1,72,74,547/- (excluding taxes and duties) towards the cost for the supply and laying of additional cables of various sizes of all outgoing feeders.

The Chief Engineer (Generation & PED) reported that during joint inspection with M/s. GEPIL for finalizing location and physical sizing of LV Panels during renovation works of Unit #3, it was observed that even though at present the condition of existing PVC insulated outgoing LV Cables installed was found satisfactory, due to ageing its condition cannot be assured even in near future. More over as majority of LV Panels including incomer cables are being replaced and these panels are expected to be in continuous service for more than next 20 years, in the event of any serious failure to the old outgoing LV Cables (non fire retardant type), the new panels and new cables can also get adversely affected which can pose a serious threat to the safety and reliability of the Underground station besides causing huge financial loss due to loss of generation from 1st stage units. A fire hazard occurring in one large size LV cable may cause fire in healthy cables also as most of the LV Cables are laid bunched in cable trays which may lead to a very serious safety breach due to emission of smoke and fire from the old type cables. Such unsafe conditions can be avoided if the outgoing LV cables are also replaced along with replacement of LV panels. Hence while carrying out the detailed Engineering design of outgoing LV system all these factors were considered and it was observed that replacement of all the outgoing cables with fire retardant low smoke (FRLS) cables could reduce the possibility of such hazardous incidents and also substantially increase the plant availability, reliability and the safety can also be ensured .

During detailed engineering phase, a comprehensive LV Feeder List was prepared, by considering revised ratings of various equipment and additional panels for auxiliary equipment, with a view to increase operational flexibility and reliability and replacing outgoing cables from various LV Panels consisting of the LV cables required for connecting to the various panels and equipment. M/s GEPIL had also submitted design document of MV&LV power cables wherein they had considered use of XLPE Cables for LV Cables which was approved from KSEBL's side during pre-bid meeting due to superior technical properties. M/s GEPIL had proposed use of single Core cables for sizes 90 sq.mm and above, due to its major advantages in installation, operational aspects during plant operation and maintenance, overall longer life, increased safety factor etc.

As decided in the meeting convened by the Chief Engineer (Gen.& PED) on 03-06-2019, the estimate was prepared, to assess the cost aspect of procurement of additional length of LV power cables required for replacing all outgoing feeders which were not intended for replacement in the tender and to verify the authenticity of the offer submitted by M/s. GEPIL. It is reported that the procurement cost of LV Cables alone comes to around Rs. 1,54,87,406/- excluding taxes. The rate offered by M/s. GEPIL towards the cost for supply and laying of additional cables is Rs. 1,72,74,547/-. On negotiation held on 03-06-2019, M/s. GEPIL reduced the quoted amount to Rs. 1,43,50,000/- excluding taxes. The Chief Engineer (Gen.& PED) has reported that the offer from M/s. GEPIL is reasonable as it is below the estimate prepared for procurement cost of cable alone and that the quoted rate by the firm is inclusive of design, engineering, procurement and laying.

The Financial Adviser as per Note read as 6th paper above, has remarked that considering the safety aspects explained by the Chief Engineer, sanction of the work may be awarded subject to approval from Board.

As per B.Os read as 2nd and 3rd paper above some excess quantity/extra works were sanctioned viz; Refurbishment of the fire fighting system of Generators and Generator Transformers of stage II units as excess quantity and Procurement and replacement of 5 nos. pole end plates with pole core nuts for Unit #3 as an extra work. In addition to this, sanction was also accorded as per B.O read as 4th paper above, to procure 5 nos. spare Rotor pole end plates with pole core nuts (under capital expenditure).

Considering the exigency of the work, the Chief Engineer (Generation & PED) as per letter read as 5th above recommended to accord sanction for replacing all the outgoing cables to the panels and to the equipment with XLPE FRLS cables and to award the work of design, engineering, supply and laying of additional cables to M/s. GE Power India Limited at their reduced quoted rate of Rs.1,43,50,000/- (Rs.1,69,33,000/- including GST) as extra work, with the condition that the supply and installation of all incomer cables shall be in scope of M/s. GEPIL without any additional cost to the agreed price in the schedule. The amount for this extra work comes to 3.54 % of the total sanctioned amount of Rs. 47,84,59,921/-.

Having considered the matter in detail vide Note read as 8th paper above, the Full Time Directors in the meeting held on 24-07-2019, resolved to accord sanction to award the work of design, engineering, supply and laying of additional cables required for replacing all the old outgoing cables to the panels and equipment with XLPE FRLS cables, as part of R&M work of Stage I units of Idukki HEP to M/s. GE Power India Ltd. at their reduced quoted rate of Rs.1,43,50,000/- (Rs.1,69,33,000/- including GST) as extra work, with the condition that the supply and installation of all incomer cables shall be in scope of M/s. GEPIL without any additional cost to the agreed price in the schedule.

Orders are issued accordingly.

By Order of the Full Time Directors,

Sd/-
Lekha G.
Company Secretary (In charge)

To

1. The Chief Engineer (Generation & PED), Moolamattom.
2. The Deputy Chief Engineer (Projects-Electrical Designs).

Copy to:

The Financial Adviser/The Chief Internal Auditor/The Company Secretary.
The Deputy Chief Engineer, Generation Circle, Moolamattom.
The Deputy Chief Engineer (IT)/ The RCAO/The RAO.
The TA to Chairman & MD/ Director (CP,GE,SCM&S)/ Director(GC&HRM)/ Director (Trans.&SO)/ Director (D&IT).
The PA to Director (Finance).

Forwarded / By Order


Asst. Exe. Engineer