

**Abstract**

R&M Works of Sholayar HEP (3X18 MW) - Contract with M/s. FEPL - FUYUAN Consortium for **E&M works** - extension of period of completion of Contract upto 31-10-2020 - Sanctioned - Orders issued.

Corporate Office (SBU-G/E)

B.O. (FTD)No. 702 /2020 (21/AE4/2013/CE (PED)) Thiruvananthapuram. Dated: 20 - 11 - 2020

- Read:-
1. B.O (DB) No. 1428/2015(D(GE)/G2/RMU-SLR/2015-16) dated 09-06-2015.
 2. Agreement No. CEPED/02/2015-16 dated 06-07-2015 with M/s. FEPL - FUYUAN Consortium.
 3. B.O. (FTD)No. 412 /2019 (D(GE)/G2/RMU-SLR /2019-20) dated 21-05- 2019.
 4. Letter No P1516-03/PM/RA/OG/CWC-061 dated 09-04-2020 and No. 0659 dated 13-07-2020 of M/s. FEPL.
 5. Letter No DBE2/R & M SLR/2020-21/582 dated 19-08-2020, No. 796 dated 30-09-2020 and No. 798 dated 30-09-2020 of the Deputy Chief Engineer, Génération Circle, Thrissur.
 6. Note No. 21/AE4/2013/CE (PED)/907 dated 23-10-2020 of the Chief Engineer (Generation&PED) to the Full Time Directors (Agenda No. 45/11/20).

ORDER

The contract for the execution of E&M part of the R & M works of Sholayar HEP (3 x 18 MW) was awarded to M/s. FEPL- FUYUAN Consortium as per B.O read as 1st paper above and the Agreement read as 2nd above was executed by the Chief Engineer (Projects-Electrical Designs) with the initial scheduled project completion period as 33 months i.e 15.04.2018. Since a fresh model test was conducted for Sholayar HEP as per the provisions of the contract agreement, the scheduled project completion period was rescheduled for a period of 8 months i.e up to 14.12.2018 as per the contract condition.

Unit No. 3 of Sholayar HEP was handed over to the contractor on 17.04.2017 for the R & M works. However, due to certain major issues namely rescheduling of inspection of Generator for Unit No 3 at the works of M/s. Yibin Fuyuan in China, delay for obtaining customs clearance for import of Generators, natural calamity during August 2018 etc, the completion of the R & M works of Unit No 3 was delayed. Even though the erection and the pre commissioning works of Unit No.3 was completed by the mid of October 2018, the mechanical spinning and synchronization could be completed only by the end of December 2018, as the penstock work for Unit No. 3 was completed only by 21.12.2018. However, on 11.02.2019, the transformer of Unit No 3 failed which was brought from BDPP and the 72 hours test run of Unit No 3 could be completed only by 16.03.2019 due to the delay for arranging the overhauling of the old transformer. The Unit No. 2 of Sholayar HEP was handed over to the contractor on 01.04.2019.

The Chief Engineer (Generation & PED) has reported that, the period of the contract for carrying out the E & M part of the R & M works was extended by KSEBL up to 30.04.2020, as per B.O read as 3rd above presuming that R & M works of Unit No 2 of sholayar HEP, which was handed over to the contractor on 01.04.2019, will be completed by 31.10.2019 and the R & M works of the last Unit i.e Unit No 1 of Sholayar HEP can be completed in the balance six months from 01.11.2019 up to 30.04.2020. However, during the erection of Unit No.2 of Sholayar HEP, around August 2019, it was noticed that the length of the intermediate shaft which connects rotor shaft and turbine shaft was short in length by 15 mm. On detailed inspection it was found that the Generator foundation of Unit No 2 machine is 15 mm above than level specified in the drawings.

It is reported that as per the Parambikulam Aliyar Project agreement (PAP), 233 MU is to be generated with the Sholayar machines annually. Hence, at least two machines of Sholayar HEP need to be operated simultaneously to generate 20 MU per month to achieve the target of 233 MU in a year and to avoid under utilization of water as per PAP agreement. Due to the shutdown restrictions

for Sholayar machines, the contractor had manufactured the intermediate shaft for all the Units similar to the dimensions measured by the contractor for Unit No 3.

It is further reported that considering the risk involved in the rectification work of the sole plates of the Generator as the foundation is very old, in the review meeting held with the E & M contractor on 05.09.2019 at the project site, it was decided that a new Intermediate Coupling shaft of correct measurement shall be manufactured by the contractor. The new Intermediate Coupling shaft for Unit No 2 was delivered at site on 08.11.2019, after two months as the shaft was to be forged and machined outside the state. Accordingly, the R & M works of Unit No 2 was delayed from the scheduled completion date of 31.10.2019 and completed on 20.01.2020 as per the contract conditions (including 72 hours trial run test). Unit No 1 was handed over to E & M contractor for the R & M works on 20.01.2020.

After dismantling of Unit No 1 for the R & M works, the foundation level of the machine was measured to compare with the drawings and it was noticed that the length of the intermediate Coupling shaft which connects rotor shaft and turbine shaft was short in length by 9 mm. Hence, as per the decision in the meeting held on 24.02.2020 at site with the contractor, it was decided that a new Intermediate Coupling shaft for Unit 1 shall also be manufactured by the contractor so as to avoid any delay in the works and the matter of additional payments requested by the contractor for the manufacture of new Intermediate Coupling shaft for Unit 2 and Unit 1, can be taken up to the Board to which the contractor agreed. However, in the second week of March 2020, due to the nationwide outbreak of the Covid 19, the R & M works of Unit 1 was delayed. The manufacturing of the new Intermediate Coupling shaft for Unit No 1 was also delayed and the same could be delivered at site by 17.06.2020. The R & M works for Unit No 1 was completed and was commissioned on 19.09.2020 after the 72 hour trial run test.

It is reported that M/s FEPL as per 4th paper above had requested for time extension up to 31.10.2020 without imposing liquidated damages, as the work was delayed due to the pandemic as well as the delay caused due to the manufacture of new intermediate shafts for both Unit No 2 and Unit No 1. The Deputy Chief Engineer, Generation Circle, Thrissur as per 5th paper above had recommended that the request of the contractor for time extension of the contract for Sholayar HEP up to 31.10.2020 may be considered as the total delay of completing the R & M works of the project were due to unavoidable reasons and the extension requested by the contractor is reasonable.

Considering the above, the Chief Engineer (Gen.&PED) has requested sanction for the time extension of the contract for E&M works of Sholayar HEP up to 31.10.2020 without imposing liquidated damages on the contractor and without any additional financial commitment to the Board other than that due to implementation of GST.

Having considered the matter in detail as per Note read as 6th above, the Full Time Directors in the meeting held on 17-11-2020, resolved to accord sanction for the extension of the time period for the contract for carrying out the E&M part of R & M works of Sholayar HEP, up to 31-10-2020 without imposing liquidated damages on the contractor and without any additional financial commitment to the Board other than that due to implementation of GST.

Orders are issued accordingly.

By Order of the Full Time Directors,

Sd/-

Lekha G

Company Secretary (In charge)

To

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

Copy to:

The Financial Advisor/ The Chief Internal Auditor/The Company Secretary.
The Deputy Chief Engineer (IT)/ The RCAO/The RAO.
The TA to Chairman & MD/ Director (GE&SCM)/ Director(GC)/ Director
(Trans.&SO)/ Director (D,IT&HRM) /Director (Planning&Safety), The PA to Director (Finance).

Forwarded / By Order

Janil Kurian
Asst. Exe. Engineer

UNDESPATCHED

No. 236