



KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Companies Act, 1956)

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ABSTRACT

Implementation of Floating Solar Plants in reservoirs of KSEBL, KWA and Irrigation - for conducting multi beam bathymetric survey, hydrographic survey, soil investigation at Ponmudi, Sengulam, Madupetty and Banasurasagar reservoirs -sanction accorded- Orders issued.

Corporate Office (REES, S, N, S & W)

B.O.(FTD)No.874/2022/CE(REES)/INNV/AE3/FS-empanel/2022-23dated,Tvm. 01.11.2022

- Read: 1. B.O (FTD) No. 378/2022/CE(REES) Floating Solar/2022-23 dated 04.05.2022
2. RfP No. KSEBL/CE(REES/ Floating solar/ 05/22-23 having Tender ID : 2022_KSEB_488380_1.
3. Eol No. KSEBL/CE(REES)/FS-empanel/13/22-23 dated 03.08.2022 having Tender ID 2022_KSEB_502041_1
4. B.O (FTD) No.709/2022/CE(REES)INNV/AE3/FS/2022-23 dated 12.08.2022
5. Note No CE(REES)/ INNV/AE3/FS-empanel /2022-23/1224 dated17.10.2022 of the Chief Engineer (REES) to the Full time Directors through the Director (REES, S, N, S & W) (Agenda-34/10/22).

ORDER

As per the BO read as 1st above, KSEBL had invited Request for Proposal (RfP) read as 2nd above for tariff based bid for 25years as limited tender in e-Tender portal for setting up minimum 100MW floating Solar Photovoltaic (FSPV) Plant from at least 3 reservoirs. Only the three selected bidders who participated in the initial Request for Qualification (RfQ) could participate in this limited e-tender. The lowest tariff was from M/s. TATA Power Renewable Energy Ltd. @ Rs.4.34/kWh for a capacity of 77MW at Banasurasagar. Since the tariff offers received were high, the RfP was cancelled as per B.O read as 4th above and it was ordered to proceed for re-tender for optimum capacity in other reservoirs also. Thus for better participation, fresh Eol read as 3rd above was invited and the bids were opened on 28.09.2022 and is now under evaluation by legal and financial wing.

In the meantime, it was noticed that the tariff quoted by developers are seen to depend on availability of relevant data on reservoir bed, wind, wave, water current, water level variation etc with respect to the reservoirs offered for bidding. Providing precise raw data required for designing the FSPV plant such as launching site area, access road, data for designing bed/ bank anchor, mooring line, space available in reservoir, height of wave, bed soil properties, wind speed on floating panels, power evacuation etc. help in better cost estimation of the project by the bidder and thereby competitive tariff offers can be obtained. The anchoring and mooring system are location specific and is an important component of floating solar system that anchors and evenly distributes the environmental forces. The number and size of mooring lines and anchors reflects on tariff and for economic design of the same, physical features of reservoir bed & bank, type of soil too is required. To get the physical features of reservoir bed, soil investigation, multi beam bathymetric survey at 1m interval and hydrographic survey is required.

As per the note read as 5th above the Chief Engineer (REES) has suggested that the above said details are to be shared with developers along with the RfP for getting competitive tariff. The selected KSEBL reservoirs are under Damsafety wing. Therefore, the Chief Engineer (REES) has recommended that the multi beam bathymetric survey at 1m interval, soil investigation and hydrographic surveys be conducted to obtain the above data with respect to the four reservoirs (Ponmudi, Sengulam, Madupetty and Banasurasagar) through the Dam Safety Wing.

The matter was placed before the Full Time Directors as per the note read as 5th above.

Having considered the matter in detail, the Full Time Directors in its meeting held on 20.10.2022, resolved to have correspondence/ meeting with Central Government Agencies to ascertain whether they take such studies and what will be the average cost for such study. Accordingly, studies shall be entrusted either on nomination basis to Central Public Sector Undertakings or institutions like SECI or through tender process.

Further resolved to evolve a terms of reference not only for solar projects but also related to other aspects from the point of view of dam safety and system operations.

Orders are issued accordingly.

By Order of the Full Time Directors,


**Sd/-
Lekha G.
Company Secretary**

To :1.The Chief Engineer, Renewable Energy and Energy Savings.
2. The Chief Engineer (Civil) Dam Safety and DRIP

Copy to:

The Financial Adviser/ The Chief Internal Auditor.
The Dy. Chief Engineer (IT)/ The RCAO/ RAO.
The TA to Chairman & MD/D(T,SO,P &S)/D(D, IT& SCM)/D(G-E)/D(G-C)/
D(REES,S,N, S&W)
The PA to Director (Finance & H RM)/Company Secretary,
The Legal Liaison Officer, Kochi
Fair Copy Superintendent/Library/Stock File.

Forwarded / By Order


Assistant Engineer