



ABSTRACT

Water Resources Department – Mullai Periyar Dam – Purchase of Electronic Total Station for the study of deflection at Periyar Dam at an estimated cost of Rs.8.75 Lakh - Administrative and Financial Sanction accorded – Orders Issued.

Water Resources (S2) Department

G.O(2D)No.15

Dated: 08.05.2023

சோபகிருது, சித்திரை 25,
திருவள்ளூர் ஆண்டு 2054

Read :

From the Engineer-in-Chief and Chief Engineer
(General), Water Resources Department, Chennai
Letter No. S7(2)/47547/OT4/2006, dated 31.10.2019.

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ORDER:

In the letter read above, the Engineer-in-Chief and Chief Engineer (General), Water Resources Department, Chennai has sent a proposal for Purchase of Electronic Total Station for the study of deflection at Periyar Dam at an estimated cost of Rs.8.75 Lakh and the estimate envisages as follows :

- a) Periyar Dam was constructed during the year 1887-1895. The Periyar lake water spread area located in the Kerala State. Even though this dam is situated in the Kerala State, the ayacuts in Five Districts in Southern Tamil Nadu have been benefitted by this dam.
- b) Because of the apprehension, raised by the Kerala, General Public in 1970's the strengthening work to the dam have been carried out by three measures as per the guidance of the central water commission and all the measures have been completed in 1994 by the Government of Tamil Nadu and this dam is being maintained by the Government of Tamil Nadu.
- c) Moreover this dam is located in the dense forest of Western Ghats

at an elevation of 2870' above MSL and also this area is being subjected to the heavy rain of both North – East and South – West monsoon during the nine months of every year.

- d) The dam deflection is being mentioned periodically at frequent intervals using a total station, the deflection readings are to be taken at 2' level interval when water level is below +120' at 1ft interval for water level between 120' to 130' and 0.5 feet interval for water level above 130' and these readings have to be studied with Superintending Engineer, PWD, Designs and the Director, IRS, Anna University.
- e) The Scientist from the Anna University have established 14 points over the dam top surface and they have been taken readings (ie) Latitude, Longitude of the point using a Global Position System (GPS) at a water level of 123' similar set of readings at a comparison lower level and also higher level is to be observed by Anna University for studying the elastic behavior of the dam and the stress developed under various combination of loading condition.
- f) During 9th Supervisory Committee, the committee has insisting the revival of instruments at Periyar Dam held on 07.07.2016 at Kumily (Kerala). Further, the Deflection of the dam have been analysed (FEM Analysis) by a team of Scientist in Anna University and they also suggested for revival of instruments at Periyar Dam.
- g) Based on the Supervisory Committee and Anna University recommendations and quotation received from the VIKAS Scientific Instruments Pvt. Ltd., Chennai the estimate has been prepared at an estimate cost of Rs.8.75 Lakhs.

2. The Engineer-in-Chief and Chief Engineer (General), Water Resources Department has further stated that the work of Purchase of Electronic Total Station for the study of deflection at Periyar Dam at an estimated cost of Rs.8.75 Lakh and it is reported that geodetic readings have to be observed every fortnightly with the Electronic Total Station. The deflection of the Mullai Periyar Dam with respect to water level variation is very minimal since it is gravity dam. The deflection is being calculated and submitted to the Chairman, Supervisory Committee and then to the Kerala Officials and the accuracy of the present total station at the Dam site is less.

3. The Engineer-in-Chief and Chief Engineer (General), Water Resources Department, Chennai has therefore requested that Administrative Sanction may be obtained from the Government for Purchase of Electronic Total Station for the study of deflection at Periyar Dam at an estimated cost of Rs.8.75 Lakh.

4. The Government, after careful examination, have decided to

accept the above proposal of the Engineer-in-Chief and Chief Engineer (General), Water Resources Department. Accordingly, administrative and financial sanction is accorded for Purchase of Electronic Total Station for the study of deflection at Periyar Dam at an estimated cost of Rs.8.75 Lakh (Rupees Eight Lakh and seventy five thousand only) as follows:

Sl. No.	Description of Work	Estimate Amount (in Rupees)
1.	Electronic Total Station	6,95,000/-
2.	Installation, Demonstration and Training Charges	35,000/-
	Sub Total	7,30,000/-
3.	Provision for GST 18%	1,31,400/-
4.	Provision for labour welfare fund 1%	8,750/-
5.	Provision for Unforeseen item	4,850/-
	Total	8,75,000/-

5. The expenditure sanctioned in para 4 above shall be debited to the following head of account:- (40-01)

"2701 - Medium Irrigation - 80 - General - 001 - Direction and Administration State's Expenditure - AH - Executive Establishment - Special Division under WRD - 319 - Machinery and Equipments - 01 - Purchase.

(IFHRMS DPC 2701-80-001-AH-31901)

6. Necessary additional funds of Rs.8,75,000/- will be provided in Revised Estimate / Final Modified Appropriation for 2023 - 2024. Pending provision of such funds, the Engineer-in Chief and Chief Engineer (General), Water Resources Department, Chennai is authorised to incur the expenditure sanctioned in para 4 above. The Engineer-in Chief and Chief Engineer (General), Water Resources Department, Chennai is requested to include the above item of expenditure while sending the budget proposal for Revised Estimate / Final Modified Appropriation 2023 - 2024 to Finance (PW-II) Department at an appropriate time without fail.

7. The Engineer-in-Chief and Chief Engineer (General), Water Resources Department and the Chief Engineer, Water Resources Department, Madurai Region are directed to purchase the instruments sanctioned in para 4 above by following the existing tender rules and procedures.

8. The Engineers concerned are directed to upload the details of works executed in the Tamil Nadu Water Resources Information and

Management Systems Portal under control of Chief Engineer, Institute of Water Studies, Hydrology and Quality Control to ensure effective data base in the Water Resources Department.

9. This order issues with the concurrence of Finance Department vide its U.O. No.8538/PW-2/2023, dated.04.05.2023 and Additional Sanction Ledger No.0072 (Seventy two) (IFHRMS ASL No.2023050072)

(BY ORDER OF THE GOVERNOR)

**SANDEEP SAXENA,
ADDITIONAL CHIEF SECRETARY TO GOVERNMENT**

To

The Engineer-in-Chief and Chief Engineer (General), Water Resources Department, Chennai-5.

The Chief Engineer, Plan Formulation, Water Resources Department, Chennai-5.

The Chief Engineer, Institute of Water Studies, Hydrology and Quality Control, Taramani, Chennai-113.

The Chief Engineer, Water Resources Department, Madurai Region, Madurai.

The Chief General Manager, NABARD, 48, Uttamar Gandhi Road, Nungambakkam, Chennai-34.

The District Collector, Theni.

The District Treasury Officer, Theni.

The Pay and Accounts Officer (East), Chennai-8.

The Pay and Accounts Officer, Madurai.

The Principal Accountant General (A&E), Chennai-18.

The Principal Accountant General, (Economic and Revenue Sector Audit), Chennai-18.

The Resident Audit Officer, Secretariat, Chennai-9.

Copy to

The Senior Personal Assistant to Hon'ble Minister (Water Resources), Secretariat, Chennai-9.

The Finance (P.W.II / BG II/ W&M-I) Department, Secretariat, Chennai-9.

The Water Resources (OP-II / ISpl.I) Department, Secretariat, Chennai-9.

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// Forwarded by Order //

l Manil
11/07/2023
Section Officer
11/5/2023