



## **ABSTRACT**

Water Resources Department – Announcement made by the Hon'ble Minister (Water Resources) for the year 2023 – 2024 – Renovation and restoration of Old Shutters and it's Mechanical parts required for its operation and Renovation and restoration of electrical communication devices for 8 Dams and Reservoirs at an estimated cost of Rs.50.8260 Crore – Administrative sanction – Accorded - Orders issued.

### **Water Resources (S1) Department**

**G.O (Ms) No.06**

**Dated.11.01.2024**

**சேபகிருது மர்கழி 26**

**திருவள்ளூர் ஆண்டு 2054**

#### **Read**

1. From the Chief Engineer, Plan Formulation, Water Resources Department, Chennai, Letter No. F2 / Announcement 2023-24 / Rehabilitation / AE6 / AEE5 / 2023, dated 13.04.2023.
2. Government Letter No.12976 / Fin (Res.II) / 2023, dated.19.05.2023.
3. From the Engineer-in-Chief and Chief Engineer, Water Resources Department, Chennai Letter No. S7(4) / 55163 / OT3 /2007, dated 27.07.2023.
4. From the Chief Engineer, Plan Formulation, Water Resources Department, Chennai, Letter No. B / Announcement 2023-24 / Shutters / AE2 / AEE2 / 2023, dated.16.10.2023.

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#### **ORDER:**

During the Demand of Water Resources Department for 2023 - 2024 held on 29.3.2023, the Hon'ble Minister for Water Resources has announced that Renovation and restoration work of old shutters and the mechanical parts required for their operation and renovation and restoration of electrical communication devices of 17 Dams and Reservoirs which are above 50 years and still under usage

will be carried out at a cost of Rs.34.72 Crore.

2. Based on the above announcement, in the letter first read above, the Chief Engineer, Plan Formulation has sent a proposal for Renovation and restoration of Old Shutters and it's Mechanical parts required for its operation and Renovation and restoration of electrical communication devices for 17 Dams and Reservoirs and stated that the estimates were prepared based on Schedule of Rate for 2023-2024 and requested to accord administrative sanction for Rs.34.1269 Crore under NABARD or State Fund.

Sl. No.	Name of work	Estimate SOR 2023-2024) in crore
1	Repairing the Lift gate of vent No.2 (vent size 11.00 m x 4.75 m) and renewal of operating Platform of Vent no. 1,2 & 3 and metalizing the gates in all vents in Sithamalli reservoir in Kargudy village of Udayarpalyam Taluk in Ariyalur District.	1.4698
2	Repair and Service to the Spillway Vertical Shutters, River Sluice Shutters and Canal Sluice Shutter of Palar Porundalar Dam in Balasamuthiram Village of Palani Taluk in Dindigul District	1.4910
3	Repair and service to the spillway Radial shutters, River sluice Shutters and sluice shutters of Kuthiraiyar Dam in Andipatti Village of Palani Taluk in Dindigul District	0.9965
4	Renewal and repairs of Emergency Service shutters, Electrical arrangements and Gantry crane service for Karisalkal Sluice of Adavinainarkoil Dam in Tenkasi District.	0.1994
5	Renewal and Repairs of Emergency Service shutters Electrical arrangements and Gantry Crane service for Mettukal Sluice of Adavinainarkoil Dam in Tenkasi District.	0.10
6	Renewal of shutter arrangements in Kodumudiyar Dam at Nanguneri Taluk in Tirunelveli District.	0.2989
7	Providing Electrical Arrangements and Purchase of New Generator to Karuppanathi Dam in Kadaiyanallur Taluk of Tenkasi District.	0.2314
8	Providing Electrical Arrangements and Purchase of New Generator to Marudhanadhi Dam of Authoor Taluk in Dindigul District	0.2407
9.	Repair and Replacement of SG Shutter in Sluice No.1,2 & 3 at Srimoolaperi reservoir of Tenkasi District.	0.15
10.	Structural rehabilitation of Spillway steel components in vent no.1 & 3 with renewal of Chain link components, EM brakes, Dial gauges and structural renovation of wire rope assembly in the tunnel entry of Parambikulam dam in Chittur taluk of Palghat district.	2.2732

11	Renovation of Spillway Shutters in Sathyamoorthy Sagar dam at Poondi village of Thiruvallur Taluk and District	9.8466
12	Special repairs to Service shutters in Amaravathi Main Canal shutter No. 2, River Sluice Shutter No.3 and Emergency shutter of Amaravathi Dam in Udumalpet Taluk of Tiruppur District.	0.3965
13	Repairs and Renewal to Manimuthar Main Canal Head Sluice shutter and its appurtenant structures of Manimuthar Dam in Ambasamudran Taluk of Tirunelveli District.	0.4943
14	Changing hoisting operation of Pickup Anicut shutter from Manual mode to Electrical mode and Construction of Generator Room of Vaigai Dam in Periyakulam Taluk of Theni District.	1.4324
15	Replacement, Fabrication and Erection of Vertical Shutter in old Existing Spillway vent 1 & 2 with hoisting arrangements in Gomukhi Dam near Vadakanandhal village of Chinnasalem Taluk in Kallakurichi District.	12.4074
16	Providing shutter and generator arrangements in Sathaiyar Dam in Konapatti village of Vadipatti Taluk in Madurai District	1.457
17	Special Repairs to Spillway Shutter and Sluice Shutter of Right Flank Canal along with hoisting arrangements of Left and Right Flank Canal Sluice Shutters of Uppar Dam in Dharapuram Taluk of Tirupur District.	0.6418
	Total	34.1269

3.The proposal of the Chief Engineer, Plan Formulation was accepted and 15 works were proposed for NABARD loan assistance under RIDF XXIX for 2023-24 and 2 works under State fund as follows:-

Sl. No.	Name of work	Estimate SOR (2023-2024) in crore	Source of Fund
1	Repairing the Lift gate of vent No.2 (vent size 11.00 m x 4.75 m) and renewal of operating Plat form of Vent no. 1,2 & 3 and metalizing the gates in all vents in Sithamalli reservoir in Kargudy village of Udayarpalyam Taluk in Ariyalur District.	1.4698	NABARD
2	Repair and Service to the Spillway Vertical Shutters, River Sluice Shutters and Canal Sluice Shutter of Palar Porundalar Dam in Balasamuthiram Village of Palani Taluk in Dindigul District	1.4910	NABARD

3	Repair and service to the spillway Radial shutters, River sluice Shutters and sluice shutters of Kuthiraiyar Dam in Andipatti Village of Palani Taluk in Dindigul District	0.9965	NABARD
4	Providing Electrical Arrangements and Purchase of New Generator to Marudhanadhi Dam of Authoor Taluk in Dindigul District	0.2407	STATE FUND
5	Replacement, Fabrication and Erection of Vertical Shutter in old Existing Spillway vent 1 & 2 with hoisting arrangements in Gomukhi Dam near Vadakanandhal village of Chinnasalem Taluk in Kallakurichi District.	12.4074	NABARD
6	Providing shutter and generator arrangements in Sathaiyar Dam in Konapatti village of Vadipatti Taluk in Madurai District	1.457	NABARD
7	Structural rehabilitation of Spillway steel components in vent no.1 & 3 with renewal of Chain link components, EM brakes, Dial gauges and structural renovation of wire rope assembly in the tunnel entry of Parambikulam dam in Chittur Taluk of Palghat district.	2.2732	NABARD
8	Repair and Replacement of SG Shutter in Sluice No.1,2 & 3 at Srimoolaperi reservoir of Tenkasi District	0.15	NABARD
9	Providing Electrical Arrangements and Purchase of New Generator to Karuppanathi Dam in Kadaiyanallur Taluk of Tenkasi District.	0.2314	STATE FUND
10	Renewal and repairs of Emergency Service shutters, Electrical arrangements and Gantry crane service for Karisalkal Sluice of Adavinainarkoil Dam in Tenkasi District.	0.1994	NABARD
11	Renewal and Repairs of Emergency Service shutters Electrical arrangements and Gantry Crane service for Mettukal Sluice of Adavinainarkoil Dam in Tenkasi District.	0.10	NABARD

12	Changing hoisting operation of Pickup Anicut shutter from Manual mode to Electrical mode and Construction of Generator Room of Vaigai Dam in Periyakulam Taluk of Theni District.	1.4324	NABARD
13	Special Repairs to Spillway Shutter and Sluice Shutter of Right Flank Canal along with hoisting arrangements of Left and Right Flank Canal Sluice Shutters of Uppar Dam in Dharapuram Taluk of Tirupur District.	0.6418	NABARD
14	Special repairs to Service shutters in Amaravathi Main Canal shutter No. 2, River Sluice Shutter No.3 and Emergency shutter of Amaravathi Dam in Udumalpet Taluk of Tiruppur District.	0.3965	NABARD
15	Repairs and Renewal to Manimuthar Main Canal Head Sluice shutter and its appurtenant structures of Manimuthar Dam in Ambasamudran Taluk of Tirunelveli District.	0.4943	NABARD
16	Renewal of shutter arrangements in Kodumudiyar Dam at Nanguneri Taluk in Tirunelveli District.	0.2989	NABARD
17	Renovation of Spillway Shutters in Sathyamoorthy Sagar dam at Poondi village of Thiruvallur Taluk and District	9.8466	NABARD
	Total	34.1269	

4. In the letter 2<sup>nd</sup> read above, Finance (Res) Department has forwarded the above proposal to NABARD for availing loan assistance under RIDF-XXIX. NABARD has also sanctioned its loan assistance to 15 works as proposed in para 3 above.

5. The Engineer-in-Chief and Chief Engineer (General), Water Resources Department in his letter 3<sup>rd</sup> read above, has sent a proposal in which he has furnished the following details:-

- i The hydro-mechanical structures installed in the Parambikulam Reservoir have served over 55 years, which require critical assessment of their present condition with respect to their serviceability and safety. As such, while scrutinizing the technical report of DSRP, it is inferred from the recommendation made by DSRP team that all the age old hydro-mechanical components require replacement with new ones. Accordingly, based on the

follow on inspection carried out by the Chief Engineer (Operation & Maintenance), Water Resources Department, Chennai, NDT tests were conducted thereon at site by reputed agencies. The test results emphasizes that the Parambikulam spillway shutter No.1 & 3 and its hoisting components such as, gear wheels, pinion wheels, sprockets, chain set, shafts and guiding vernier need replacement with new ones.

- ii Anent to the unexpected failure of the shutter No.2 in Parambikulam dam during September 2022, numerous communications have been received from various Union Government Organisations and the Kerala Dam Safety Engineers regarding the safety issues of the other shutters in which they emphasised to replace the shutters on top priority.
- iii Hence, it is opined that the renewal of shutters for vent No.1 & 3 of Parambikulam dam can be carried out during the gap period available without any hindrance and the dam can comfortably store water to cater for the irrigation needs of PAP to the ensuing zonal irrigation.

6. With the above details, in lieu of the work of Structural rehabilitation of Spillway steel components in vent no.1 & 3 with renewal of Chain link components, EM brakes, Dial gauges and structural renovation of wire rope assembly in the tunnel entry of Parambikulam dam in Chittur Taluk of Palghat District at a cost of Rs.2.2732 crore (item no. 7 in the table at para 3 above), the Engineer-in-Chief and Chief Engineer (General), Water Resources Department has requested to accord necessary Administrative Sanction for work of Design, Fabrication, Supply & Erection of Spillway Shutter No.1 & 3, hoist lifting arrangements for spillway vent No.1 to 3 in Parambikulam Dam, Repair & realignment of hoisting arrangements at Parambikulam Tunnel entry Shutters in Chittur Taluk of Palghat District at a cost of Rs.24.15 crore.

7. In the letter 4<sup>th</sup> read above, the Chief Engineer, Plan Formation, Water Resources Department has sent a detailed report as follows:-

- i. Based on the announcement, out of 17 works, 8 works of (Sl.No.10 - 17) Table at para 2 above proposed to be carried out for an amount of Rs. 28.942 crore at dams/reservoirs that are more than 50 years old.
- ii. Another 8 works (Sl.No.1-8) of Table at para 2 above proposed to be carried out for an amount of Rs. 5.0277 crore at dams/reservoirs, that are less than 50 years old. These 8 works even though the age of the dam/reservoir is less than 50 years, were recommended based on the awful condition of shutters on priority basis during this year.

- iii. Further, the remaining 1 work (Sl.No.9) proposed to be carried out for Rs. 0.15 crore in Anicut that age is more than 50 years.
- iv. The Chief Engineer, Plan Formulation, Water Resources Department has proposed to drop 8 shutter works (mentioned at (ii) above) proposed to be carried out for an amount of Rs. 5.0277 crore at dams/reservoirs that are less than 50 years old and 1 shutter work (mentioned at (iii) above) at Anicut at a cost of Rs. 0.15 Crore.
- v. Also, the work of renewal and repairs to shutter and hoisting arrangements at spillway 1&3 of Parambikulam Dam for an amount of Rs. 2.2732 crore which is one among the above 8 works, (mentioned at (i) above) more than 50 years may also be dropped. Thus totally 10 works at a cost of Rs.7.4509 crore may be dropped.
- vi. Further, the Hon'ble Minister for Water Resources has instructed to include the work of "Design, Fabrication, Supply and Erection of Spillway Shutter No.1 & 3, hoist lifting arrangement for spillway vent No.1 to 3 in Parambikulam Dam, Repair and realignment at Parambikulam Tunnel entry shutters in Chittur Taluk of Palghat District" for an amount of Rs. 24.15 crore as a fresh proposal.
- vii. After adding new work at Parambikulam dam, for Rs.24.15 crore the total amount for 8 works proposed at dams/reservoir whose age is more than 50 years works out to Rs. 50.826 crore as follows:-

Sl. No.	Name of Work	Amt. (Rs. In crore)
1	Renovation of Spillway Shutters in Sathyamoorthy Sagar dam at Poondi village of Thiruvallur Taluk and District	9.8466
2	Special repairs to Service shutters in Amaravathi Main Canal shutter No. 2, River Sluice Shutter No.3 and Emergency shutter of Amaravathi Dam in Udumalpet Taluk of Tiruppur District.	0.3965
3	Repairs and Renewal to Manimuthar Main Canal Head Sluice shutter and its appurtenant structures of Manimuthar Dam in Ambasamudram Taluk of Tirunelveli District.	0.4943
4	Changing hoisting operation of Pickup Anicut shutter from Manual mode to Electrical mode and Construction of Generator Room of Vaigai Dam in Periyakulam Taluk of Theni District.	1.4324
5	Replacement, Fabrication and Erection of Vertical Shutter in old Existing Spillway vent 1 & 2 with hoisting arrangements in Gomukhi Dam near Vadakanandhal village of Chinnasalem Taluk in Kallakurichi District.	12.4074

6	Providing shutter and generator arrangements in Sathaiyar Dam in Konapatti village of Vadipatti Taluk in Madurai District	1.4570
7	Special Repairs to Spillway Shutter and Sluice Shutter of Right Flank Canal along with hoisting arrangements of Left and Right Flank Canal Sluice Shutters of Uppar Dam in Dharapuram Taluk of Tirupur District.	0.6418
8	Design, Fabrication, Supply and Erection of Spillway Shutter No. 1 & 3, hoist lifting arrangement for spillway vent No. 1 to 3 in Parambikulam Dam, Repair and realignment at Parambikulam Tunnel entry shutters in Chittur Taluk of Palghat District.	24.1500
<b>Total</b>		<b>50.8260</b>

8. After detailed examination, the Government have decided to drop 10 works at a total cost of Rs.7.45 crore as mentioned at para 7(v) above. Necessary orders for dropping the works will be issued separately. The Government have also decided to carry out the 7 works at Sl No 11 to 17 in the table at para 2 above under NABARD loan assistance - RIDF XXIX for 2023-24 and take up the work of "Design, Fabrication, supply & erection of spillway shutter No.1 & 3, hoist lifting arrangements for spillway vent No.1 to 3 in Parambikulam Dam, Repair & realignment of hoisting arrangements at Parambikulam Tunnel entry Shutters in Chittur Taluk of Palghat District" for an amount of Rs.2415.00 lakh based on DSRP's life assessment and NDT test results of Parambikulam Tunnel entry shutters and considering urgency and essentiality.

9. Accordingly, the Government hereby accord administrative sanction for total sum of Rs.50.8260 crore (Rupees fifty crore eighty two lakh and sixty thousand only) for carrying out shutter works in 8 Dams and Reservoirs as follows:-

(A) The works of Renovation and restoration of Old Shutters and it's Mechanical parts required for its operation and Renovation and restoration of electrical communication devices for 7 Dams and Reservoirs for Rs.26.6760 Crores (Rupees twenty six crore sixty seven lakhs and sixty thousand only) shall be carried out under NABARD loan assistance, RIDF-XXIX for 2023-2024 as follows:-

Sl. No.	Name of Work	Estimate Amount (Rupees In crore)
1	Renovation of Spillway Shutters in Sathyamoorthy Sagar dam at Poondi village of Thiruvallur Taluk and District	9.8466



2	Special repairs to Service shutters in Amaravathi Main Canal shutter No. 2, River Sluice Shutter No.3 and Emergency shutter of Amaravathi Dam in Udumalpet Taluk of Tiruppur District.	0.3965
3	Repairs and Renewal to Manimuthar Main Canal Head Sluice shutter and its appurtenant structures of Manimuthar Dam in Ambasamudram Taluk of Tirunelveli District.	0.4943
4	Changing hoisting operation of Pickup Anicut shutter from Manual mode to Electrical mode and Construction of Generator Room of Vaigai Dam in Periyakulam Taluk of Theni District.	1.4324
5	Replacement, Fabrication and Erection of Vertical Shutter in old Existing Spillway vent 1 & 2 with hoisting arrangements in Gomukhi Dam near Vadakanandhal village of Chinnasalem Taluk in Kallakurichi District.	12.4074
6	Providing shutter and generator arrangements in Sathaiyar Dam in Konapatti village of Vadipatti Taluk in Madurai District	1.4570
7	Special Repairs to Spillway Shutter and Sluice Shutter of Right Flank Canal along with hoisting arrangements of Left and Right Flank Canal Sluice Shutters of Uppar Dam in Dharapuram Taluk of Tirupur District.	0.6418
	<b>Total</b>	<b>26.6760</b>

(and)

- (B). The work of Design, Fabrication, Supply and Erection of Spillway Shutter No. 1 & 3, hoist lifting arrangement for spillway vent No. 1 to 3 in Parambikulam Dam, Repair and realignment at Parambikulam Tunnel entry shutters in Chittur Taluk of Palghat District shall be carried out at an estimated cost of Rs.24.15 crore (Rupees twenty four crore and fifteen lakh only) under State Fund.

10. The amount sanctioned in para 9 above shall be debited to the following Head of Account:-

Works at para 9 (A) above.

**Sl. No.1 - Rs.9,84,66,000/-**

4701- Capital Outlay on Medium Irrigation -  
 02 Chennai Basin - 800 - Other Expenditure -  
 State's Expenditure - AB Reservoirs - NABARD assistance  
 - 416 Major Works 01 Major Works.

(IFHRMS DPC. 4701 - 02 - 800 - AB - 41601)

**Sl. No. 2 and 7 - Rs.1,03,83,000/-**

4700 Capital Outlay on Major Irrigation - 01 - Cauvery Basin - 800 Other Expenditure - State's Expenditure - AB Reservoir - NABARD Assistance - 416 - Major Works - 01 - Major works.  
(IFHRMS DPC. 4700 - 01 - 800 - AB - 41601)

**Sl. No 3. - Rs.49,43,000/-**

4701- Capital Outlay on Medium Irrigation - 01 - Thamiraparani Basin - 800 - Other Expenditure - State's Expenditure - AB Reservoirs - NABARD assistance - 416 - Major Works - 01 Major Works.

(IFHRMS DPC. 4701 - 01 - 800 - AB - 41601)

**Sl No 4 and 6 - Rs.2,88,94,000/-**

4700 - Capital Outlay on Major Irrigation - 05 - Vaigai Basin - 800 - Other Expenditure - State's Expenditure - AB - Reservoirs - NABARD assistance - 416 - Major Works - 01 - Major Works.

(IFHRMS DPC. 4700 - 05 - 800 - AB - 41601)

**Sl No 5. - Rs.12,40,74,000/-**

4700 - Capital Outlay on Major Irrigation - 04 - Vellar Basin - 800 - Other Expenditure - State's Expenditure - AB Reservoir - NABARD Assistance 416 Major Works 01 Major works

(IFHRMS DPC. 4700 - 04 - 800 - AB - 41601)

**Sanctioned Work at 9(B). 24,15,00,000/-**

4702 - 00 - Capital Outlay on Minor Irrigation - 101 - Surface Water - State's Expenditure - BD - Parambikulam Aliyar Basin - Dam and Appurtenant Works - 416 Major Works - 01 Major Works.

(IFHRMS DPC. 4702 -00- 101 -BD -41601)

11.Necessary additional funds of Rs.15,14,50,000/- will be provided in FMA 2023-24. However, this expenditure shall be brought to the notice

of legislature by way of Specific Inclusion in the Supplementary Estimates 2023-24. Pending provision of funds, the Engineer-in-Chief and Chief Engineer (General), Water Resources Department, Chennai is authorized to incur the expenditure sanctioned in para-9 above. The Engineer-in-Chief and Chief Engineer (General), Water Resources Department, Chennai is directed to include the above item of expenditure while sending the budget proposal for FMA 2023-24 and also send necessary draft Explanatory note for Inclusion of the expenditure in the Supplementary Estimate 2023 - 2024 to Finance (Infrastructure -II / BG-I) Department without fail at an appropriate time.

12. It is also directed that the details of works executed must be uploaded in the Tamil Nadu Water Resources Information and Management Systems' Portal Under the Control of Chief Engineer, Institute of Water Studies, Hydrology and Quality Control to ensure effective data base in the Water Resources Department.

13. The Chief Engineer, Coimbatore Region, Water Resources Department shall resort to short-term tender procedure for carrying out the work of Design, Fabrication, Supply and Erection of Spillway Shutter No. 1 & 3, hoist lifting arrangement for spillway vent No. 1 to 3 in Parambikulam Dam, Repair and realignment at Parambikulam Tunnel entry shutters in Chittur Taluk of Palghat District if necessary.

14. The Engineer-in-Chief and all the Regional Chief Engineers, Water Resources Department are directed to ensure designs, drawings and description of works prescribed in the estimate should be same while according Technical Sanction.

15. This order issues with the concurrence of Finance Department vide its U.O. No.1666/Infra-II/2023, dated.11.01.2024 and Additional Ledger No.1735 (One thousand seven hundred and thirty five). (IFHRMS ASL No. 2024011735).

**(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, Water Resources Department, Chennai Region, Chennai-5.

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

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

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

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

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

The District Collectors, Thiruvallur / Tiruppur / Theni / Tirunelveli / Kallakurichi / Madurai / Coimbatore.

All District Treasury Officers, Thiruvallur / Tiruppur / Theni/Tirunelveli / Kallakurichi / Coimbatore.

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

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.

**Copy to**

The Secretary-II to the Hon'ble Chief Minister, Secretariat, Chennai-9.

The Special Personal Assistant to Hon'ble Minister (Finance and Human Resources Management), Secretariat, Chennai-9.

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

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

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

All original Government Orders read above.

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**// Forwarded / by Order //**

*[Signature]*  
11/11/2024  
**Section Officer**  
*[Signature]*  
11.01.2024