

## EA Team activities and Electromechanical Team initiatives

SI No.	Events	No cost recommendations	Status	Result	Other recommendations	Status	Result	Financial improvements
1	<b>Energy Audit on Raw water pumping statios of Kakkadu WTP (16 MLD &amp; 9 MLD), PIRAVOM-- OCTOBER 2021</b>	Synchornisation of pump sets by stpping of 90 hp pumps whenever not required	Done	Power consumption reduced	Supply and fixing of PF capacitors to improve PF	Done	PF has been increased and availed more incentive	Savings in respect of Power charge has been realised <b>Rs.1.43 lakhs</b> per month on comparison of pre and post audit months
					Mechanical work to smoothen pumping main inside the ORWPH	Done	Head loss reduced	
					Interconnection work to connect delivery line of circular GLSR with the delivery line of rectangular GLSR.	Not done		
					upply and fixing of VFD with 250 HP motor at ORWPH	Not done		
2	<b>ENERGY AUDIT OF 73 MLD WTP AT PANAMKUTTYMALA UNDER KOTTARAKKARA DIVISION, KWA-- NOVEMBER 2021</b>	OPERATIONAL OPTIMISATION OF TRANSFORMERS- ONE KEEP AS STANDBY	Done	PF increased, transformer loss reduced				Rs.25.67 has been reduced for the production of per MLD water on comparison of pre and post audit months subsequently the <b>savings of Rs.40071/- per month</b> has been realised in the energy charge
		MAINTAINE 3.8 m WATER LEVEL AT TWR	Done	Power consumption reduced				
					REPLACING LESS EFFICIENT BACK WASH WATER MOTOR PUMPSET BY EFFICIENT ONE HAVING 25HP CAPACITY	Not done		
					SUPPLY AND FIXING OF NEW RE CYCLING MOTOR PUMP SETS FOR WASH WATER @ 30 HP SUBMERSIBLE	Not done		
					REPLACING LESS EFFICIENT No.301 TREATED WATER MOTOR PUMPSET BY EFFICIENT ONE @ 300 HP	Not done		
					REPLACING LESS EFFICIENT No.201 TREATED WATER MOTOR PUMPSET BY EFFICIENT ONE @ 300 HP	Not done		

**ENERGY AUDIT OF  
WTP AT PATTUVAM  
UNDER  
THALIPARAMBA  
DIVISION, KWA-  
NOVEMBER 2021**

OPERATIONAL  
OPTIMISATION OF  
TRANSFORMERS- ONE KEEP  
AS STANDBY

Done

Transformer  
loss reduced

OPTIMISATION IN USAGE OF  
CLARIFIER AND FLOCULATION  
AS DESIGN CAPACITY 93 MLD  
AND UTILISED CAPACITY IS ONLY  
53 MLD

Done

Production  
improved

IMPROVING 0.5 m (average)  
WATER LEVEL AT TWR

Power  
consumption  
reduced

REPLACING OF BACK WASH  
WATER MOTOR PUMP SETS OF 40  
HP BY 30 HP @ 2 Nos.

Not done

SUPPLY AND FIXING OF NEW BY-  
PASS SHUTTER  
ARRANGEMENTS VALVE TO GUIDE  
USED WASH WATER TO THE  
LAGOON.

Not done

REPLACING LESS EFFICIENT  
TREATED WATER MOTORs @2 Nos.  
PUMPSET (CF) BY EFFICIENT ONE  
@ 177 HP each

Not done

USE OF RE-CYCLED USED WASH  
WATER FROM LAGOON BY USING  
10 kW SOLAR PLANT. (PUMPING  
MECHANISM WITH 32 M Head)

Not done

Powe charge rate per ML water  
has been reduced to  
148.61KWH from 159.4 KWH  
subsequently **savings of  
Rs.134863/- per month** has  
been realised as the production  
has been increased to 2049 ML  
from 1582 ML

4	<b>Energy audit on WSS Kalippara 36 mld under Neyyattinkara Division JULY 2022</b>	Re cycling of waste water	Note Done	Chemical consumption and power charge is reduced	Repair and maintenance of back wash valves	Not done	PF Incentive @ of Rs. 18500/- per month is realised.	Chemical consumption has been reduced and savings has been reported @ <b>Rs. 2 lakhs per month</b> . And power charge has been reduced @ <b>Rs.32000/- per month</b> and PF incentive has been increased to Rs.18500/- from zero
		Optimisation of chemical usage	Done		Power Factor correction	Done		
					Replacing of 15 hp motor pump sets at Booster station Thevupara No 1	Not done		
					Replacing of 15 hp motor pump sets at Booster station Pongarakonam No.2	Not done		
					Replacing of Clear water pump towards Kalippara 50 hp No.3	Not done		
					Replacing of Clear water pump towards	Not done		
5	<b>Energy Audit on 19 MLD RAW WATER PUMPING STATION AT PUZHAKKADAVU UNDER PH DIVISION, ATTINGAL-- SEPTEMBER 2022</b>	Keep in abeyance of No.2, 100 HP motor pump sets as the efficiency of the same is only 52.7 %.			PF Correction, Potential for Power Factor incentive is not utilised, the average PF is recorded as 0.95. The possibilities to increase the power factor to maximum to get higher incentive may be utilised.	<u>Not done</u>		
		Keep in abeyance of No.4, 100 HP motor pump sets as the efficiency of the same is only 39.88 %.			Replacing of less efficient Raw water motor pump sets of No 3, 200 HP by 200 HP	<u>Not done</u>		
						<u>Not done</u>		
						Not done		

**Energy audit on  
Booster pumping  
station at  
Thettikulam under**

**6 WSS Varkala**

Auditing is on progress

**Energy audit on 33  
mld WTP at Filter  
house**

**Vellayambalam  
under Trivandrum**

**7 South Division**

Auditing is on progress