

GENERAL ABSTRACT

Jal Jeevan Mission (JJM)-WSS - to Santhanpara, Rajakumary (Part) and Senapathy (Part)
Panchayaths in Idukki District-Package V-Supply, erection, testing and commissioning of Raw
water pump set ,Clear water pump sets
,Supply and installation of flow meters ,Electrical and allied works-General Civil Work

SI No	Head Description	Amount	
1	Supply and installation of flow meters at WTP compound	512833.55	
2	Electrical and allied works	4599084.72	
3	Supply erection,testing and commissioning of centrifugal pump set for CWPM from WTP to Kuruvilacity discharge of 25 lps for a head of 110 m.	3711260.62	
4	Supply erection,testing and commissioning of centrifugal pump set for CWPM from WTP to Swargamedu discharge of 9.5 lps for a head of 165 m.	2277486.24	
5	Supply erection,testing and commissioning of centrifugal pump set for CWPM from WTP to Jamespadi discharge of 32 lps for a head of 140 m.	5724050.92	
6	Supply erection,testing and commissioning of centrifugal pump set for CWPM from WTP to Poopara discharge of 38 lps for a head of 146 m.	7683034.86	
7	Supply erection, testing and commissioning of 55HP Vertical turbine pump set at raw water pump house	3897620.53	
8	Supply Erection ,testing and commissioning of 5 Ton capacity crane at CW pump house	363805.03	
Total Estimation PAC		28769176.47	
SI No	Description	Percentage/LS	Amount
L Lumsum Heading			
L.001	LS Amount for Electrification		
		@LS	6400000.00
Total Lumsum Amount			6400000.00
C Extra Charges			
C.001	Provision for GST		
	28769176.47	18.00%	5178451.76
Grand Total			40347628.23
Round off			2371.77
Rounded Total(Rs)			40350000.00
Rupees Four Crore Three Lakh Fifty Thousand			

Approved By

EST No. :WRD/KWA-CE(CR)/EST/6970/2022_5_7_6 (Edit Id : 9)
(Dsr year : 2018, Cost Index (Place : Idukki, Value : 141.53), GST : 18%

Sajiv Retnakaran
(PEN:G13690), Chief Engineer



DETAILED ESTIMATE

Jal Jeevan Mission (JJM)-WSS - to Santhanpara, Rajakumary (Part) and Senapathy (Part)
Panchayaths in Idukki District-Package V-Supply, erection, testing and commissioning of Raw
water pump set ,Clear water pump sets
,Supply and installation of flow meters ,Electrical and allied works-General Civil Work

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
1	Supply and installation of flow meters at WTP compound						
1.001	OD254483/2022-2023						
	Supplying 350mm electro- magnetic flow meter conforming to protection level of IP-68 for Flow Sensor and IP-67 for transmitter and having an accuracy level of 0.5% with LED/LCD display unit. The flow meter should have the housing(flow sensor) to be made of SS 304 Carbon Steel with anti corrosive protection and inside liner to be made up of Hard Rubber/Neoprene all conforming to drinking water standards. The flow meter should be coupled with HART for data acquisition and transfer with provision for wireless transfer through GSM. The manufacture should have the calibration standards as per ISO 17023 and the product shall have sufficient warranty provisions.						
		1.000					1.000
	Total						1.000
	Total Quantity in 1 nos						1.000
1.002	OD254489/2022-2023						
	Labour for cutting DI pipes 350mm Dia						
		2.000					2.000
	Total						2.000
	Total Quantity in no						2.000
1.003	OD254492/2022-2023						
	Fabricating and fixing 350 mm MS flange						
		4.000					4.000
	Total						4.000
	Total Quantity in no						4.000
1.004	OD254493/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	conveying and fixing 350 mm mechanical flow meter							
	.	1.000					1.000	
	Total						1.000	
		Total Quantity in no						1.000
1.005	OD254495/2022-2023							
	Supplying 250mm electro- magnetic flow meter conforming to protection level of IP-68 for Flow Sensor and IP-67 for transmitter and having an accuracy level of 0.5% with LED/LCD display unit. The flow meter should have the housing(flow sensor) to be made of SS 304 Carbon Steel with anti corrosive protection and inside liner to be made up of Hard Rubber/Neoprene all conforming to drinking water standards. The flow meter should be coupled with HART for data acquisition and transfer with provision for wireless transfer through GSM. The manufacture should have the calibration standards as per ISO 17023 and the product shall have sufficient warranty provisions							
	.	1.000					1.000	
	Total						1.000	
		Total Quantity in 1 nos						1.000
1.006	OD254516/2022-2023							
	Labour for cutting DI pipes 250mm Dia							
	.	2.000					2.000	
	Total						2.000	
		Total Quantity in no						2.000
1.007	OD254504/2022-2023							
	Fabricating and fixing 250 mm MS flange							
	.	4.000					4.000	
	Total						4.000	
		Total Quantity in no						4.000
1.008	OD254508/2022-2023							
	conveying and fixing 250 mm mechanical flow meter							
	.	1.000					1.000	
	Total						1.000	

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total Quantity in no						1.000
1.009	OD254521/2022-2023						
	Supplying a mechanical flow meter of WOLTMAN type confirming to ISO 4064 class B of ARAD/ZENNER/REYCHEM RPG/ITRON make and the flowmeter shall be tested and certified by FCRI - Palakkad. Flow meter should be calibrated with physical measurement at site after installation. : 200 mm diameter						
		2.000					2.000
	Total						2.000
	Total Quantity in no						2.000
1.010	OD254524/2022-2023						
	Labour for cutting DI pipes 200mm Dia						
		2.000					2.000
	Total						2.000
	Total Quantity in no						2.000
1.011	OD254510/2022-2023						
	Fabricating and fixing 200 mm MS flange						
		4.000					4.000
	Total						4.000
	Total Quantity in no						4.000
1.012	OD254511/2022-2023						
	conveying and fixing 200 mm mechanical flow meter						
		2.000					2.000
	Total						2.000
	Total Quantity in no						2.000
1.013	OD254531/2022-2023						
	Supplying and fixing mechanical flow meter of WOLTMAN type confirming to ISO 4064 class B of ARAD/ZENNER/REYCHEM RPG/ITRON make and the flowmeter shall be tested and certified by FCRI - Palakkad. Flow meter should be calibrated with physical measurement at site after installation. : 150 mm diameter						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
		1.000					1.000
	Total						1.000
						Total Quantity in no	1.000
1.014	OD254533/2022-2023						
	Labour for cutting DI pipes 150mm Dia						
	.						
		2.000					2.000
	Total						2.000
						Total Quantity in no	2.000
1.015	OD254534/2022-2023						
	Fabricating and fixing 150 mm MS flange						
	.						
		4.000					4.000
	Total						4.000
						Total Quantity in no	4.000
2	Electrical and allied works						
2.001	OD112108/2023-2024						
	Supply of all materials and providing 11KV Double pole structure using 2nos. 175x85mm. ISMB joist of 9.5M height, 100x50mm. GI chanel cross arms, 1set 3 pole of 400A, 11KV gang operated AB switch with operating handles of required length, 1 set of 9.6KV, 6KA Lightning Arrestors, 1 sets (3 nos) of 11KV, D.O fuses, Pin insulators, Disc insulators and inter connections of the above items using 8mm dia copper wire with proper copper sockets, including all associated civil works and painting of all structures with two coats of zinchromate primer and aluminium paint etc. and earthing using 5 nos of 3m GI earthing pipes and inter connection complete as per standard construction practices approved by Kerala Electrical Inspectorate and relevant standards						
	11 KV Double Pole Structure						
		1.000					1.000
	Total						1.000
						Total Quantity in set	1.000
2.002	OD254553/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>OUTDOOR HT BREAKER PANEL (LBS) Supply, Installation, Testing & Commissioning of 11kV Outdoor HT Breaker Panel with the following components. 11kV Load Break Switch 11kV, 350 MVA, 630A, LBS unit - 1 set Voltmeter (0 - 11kV) - 3 Nos LED Pilot Indication - LBS ON / OFF - 1 Set Trip Push buttons - 1 set 2NO+2NC Aux contacts - 1 Set 230V AC Shunt Trip Coil - 1 No Aluminium Busbar - 1 Set Seal off Bushings - 3 Nos Space Heater Element with Thermostat & wiring - 1 Nos Inspection Lamp LED with switch & wiring - 1 set Metering Chamber PT - 100 VA, 11kV/110V, CL 0.2S - 1 No CT - */5A, 15VA, CL 0.2S - 3 Nos Provisions for mounting 3 phase, 4wire, HT CT/PT operated, bi-directional TOD meter with accuracy class 0.2S including wiring and test terminal block, site glass etc. - 1 set "Voltage Circuit: The active & apparent power consumption of voltage circuit including power supply of meter at reference voltage, reference temperature & frequency shall not exceed 1.0 Watt & 4.0 VA per phase "Current Circuit: The apparent power taken by current circuit at basic current, reference frequency & reference temperature shall not exceed 1.0 VA/phase. (The Quoted rate shall be inclusive of necessary control wiring, components working on LT supply should be prewired completely with necessary controls as specified till the connection point for feeding LT Supply from outside, Cable end box for receiving incoming and outgoing cables and suitable civil foundation etc as required.)</p>						
		1.000					1.000
	Total						1.000
						Total Quantity in set	1.000
2.003	<p>OD254554/2022-2023 HT Bidirectional TOD Meter Supply & Providing 3 phase, 4wire, HT CT/PT operated, bi-directional with accuracy class 0.2S for both Active and Reactive energy, -/5A, HT static tri vector meter with TOD register, DLMS compliant & AMR compatible with optical port and RS232 port having ISI Marking, suitable for measurement of active kWh, reactive energy kVARh and apparent energy kVAh and kVA MD, kW MD at nominal frequency in the range of 47.5 Hz to 52.5 Hz in balanced as well as unbalanced load conditions in the existing outdoor Meter cubicle including testing & commissioning etc. complete.</p>						
		1.000					1.000
	Total						1.000
						Total Quantity in set	1.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
2.004	OD254555/2022-2023 HT Equipment Pinth, Substation Yard Fencing & Levelling Providing, fabricating and fixing 2m high chainlink fencing over 4mm thick barbed wire with a framework of 50x50x6mm MS angle between vertical posts of ISMC 75 at 2400mm interval, Earthing as per KSEI/KSEB standards shall be done around the periphery of the fencing. The MS framework for chainlink fencing shall be Hot Dip Galvanised. The rate shall be inclusive of all materials, labour, lead, lift etc including escalation works and fabrication and assembly works including all nuts, bolts and other miscallaneous items etc complete as per drawing and as directed by the Engineer in Charge.						
	.	20.000					20.000
	Total						20.000
						Total Quantity in metre	20.000
2.005	OD254558/2022-2023 HT Equipment Pinth, Substation Yard Fencing & Levelling Supplying and filling the substation yard with 40mm size blue jelly of 150mm thick including cost and conveyance of all materials, labour charges etc complete						
	.	5.000					5.000
	Total						5.000
						Total Quantity in cum	5.000
2.006	OD254560/2022-2023 HT Equipment Pinth, Substation Yard Fencing & Levelling Supply & erection of Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand).						
	.	2.000					2.000
	Total						2.000
						Total Quantity in cum	2.000
2.007	OD254561/2022-2023 Transformer Supply, installation, testing and commissioning of one number 500 kVA, DYn11, 3Ph, 50Hz, 11/0.433 kV, ONAN cooled, copper wound outdoor distribution transformer with tappings from +5% to -10% in steps of 2.5% with OFTC. The HT side & LT side shall have cable end box for XLPE cable. The transformer shall have suitable enclosure for The HT side & LT side. The transformer shall be complete with all standard accessories and fittings & conform to IS:2026. The rate shall be inclusive of all materials, lead, lift, first fill of oil, necessary civil works for mounting to the existing transformer foundation complete as per single line schematic diagram & particular specifications.						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	.Supply, installation, testing and commissioning of one number 500 kVA, DYn11, 3Ph, 50Hz, 11/0.433 kV, ONAN cooled, copper wound outdoor distribution transformer						
		1.000					1.000
	Total						1.000
						Total Quantity in no	1.000
2.008	OD254562/2022-2023 NEUTRAL CT Supply & Providing 5P10 Protection Class 150/5A, 15VA Neutral CT in a suitable enclosure including giving connections to Transformer Neutral etc.complete						
		1.000					1.000
	Total						1.000
						Total Quantity in no	1.000
2.009	OD254563/2022-2023						



SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>MSB for 500KVA Transformer Supply, fabrication, erection, testing and commissioning of cubicle type fully compartmentalised, dust tight, vermin proof, water proof 800A LT- Main MV Panel falling to IP54 category fabricated out of 16 SWG CRCA Sheet Steel painted as per standards with Aluminium Busbars of suitable size, earth bus of adequate capacity, double earth connection to all switches, internal rigid connection etc. including suitable chambers, front open, top cable entry with water proof shrouding, free standing panel consisting of the following as per standards (All switches shall confirm to conforming to IEC 60947-2 standards). Incommer 800A FP Microprocessor based MCCB (36kA) - 1 Nos. Earth Fault Relay - 1 Set 800A TPN best conductivity Aluminium busbar with SMC supports, heat shrinkable sleeves etc. as per ISS - 1set RYB indicators (LED Pilot type) with 2A Control MCB and toggle switches - 4 Set Multifunction Digital Panel meter to read V, A, F, PF, kW, kVA, kVAR, kWh, kVAh, kVARh Class 1.0 - 1 Set 800/5A CL 1.0, 15VA Metering CTs - 1 Set Outgoing : 250A FP Microprocessor based MCCB (36kA) &ndash; 4Nos 125A FP Microprocessor based MCCB (36kA) &ndash; 4Nos &quot;Surge Protection Pluggable type surge arrester with potential free contact, thermal disconnecter &amp; provision for inbuilt common remote indication for defective arresters to connect between Line and Neutral and one number Spark Gap type arrester to connect between Neutral and Earth of following ratings including base element &amp; pluggable arresters. Nominal voltage 230V, 50Hz, Nominal Discharge current 30 kA (8/20 sec) for Line to Neutral &amp; 50 kA (8/20 sec) for Neutral to Earth, Maximum Discharge Current I_{max} 50 kA (8/20 sec) -1Set&quot; Supports The panel shall be supported to ground using framework fabricated out of MS Flats / Angles etc. painted with two coats of Zinc Chromate primer and two coats of enamel paint. The framework shall be firmly supported to ground using suitable cement concrete plinth. The Panel Board shall be provided with 25 x 3mm copper earth bus for the full length. Painting letters / identifications for the incoming and outgoing switches, cable, fuse sizes, etc., in white enamel paint. The board shall be fabricated in such a way that future extension be possible.</p>						
	MSB	1.000					1.000
	Total						1.000
						Total Quantity in no	1.000
2.010	OD254564/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>SSB Supply, fabrication, erection, testing and commissioning of cubicle type fully compartmentalised, dust tight, vermin proof, water proof 200A MV Panel falling to IP54 category fabricated out of 16 SWG CRCA Sheet Steel painted as per standards with Aluminium Busbars of suitable size, earth bus of adequate capacity, double earth connection to all switches, internal rigid connection etc. including suitable chambers, front open, top cable entry with water proof shrouding, free standing panel consisting of the following as per standards (All switches shall confirm to conforming to IEC 60947-2 standards). Incoming : 250A(36KA) MCCB FP Micro processor based, TPN best conductivity Aluminium busbar with SMC supports, heat shrinkable sleeves etc. as per ISS - 1set Multifunction Digital Panel meter to read V, A, F, PF, kW, kVA, kVAR, kWh, kVAh, kVARh Class 1.0 - 1 Set RYB indicators (LED Pilot type) with 2A Control MCB and toggle switches - 1 Set 100/5A CL 1.0, 15VA Metering CTs - 1 Set Outgoings: 250A, 36kA FP MP MCCB - 4 Nos. 160A, 36kA FP MP MCCB - 4 Nos. 20A TP D curve MCB (10kA) - 4 Nos. Supports The panel shall be supported to ground using framework fabricated out of MS Flats / Angles etc. painted with two coats of Zinc Chromate primer and two coats of enamel paint. The framework shall be firmly supported to ground using suitable cement concrete plinth. The Panel Board shall be provided with 25 x 3mm copper earth bus for the full length. Painting letters / identifications for the incoming and outgoing switches, cable, fuse sizes, etc., in white enamel paint. The board shall be fabricated in such a way that future extension be possible.</p>						
	SSB						
	WTP	1.000					1.000
	Total						1.000
						Total Quantity in set	1.000
2.011	OD254565/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>APFC PANEL Automatic Power Factor Correction Panel of total 85 KVAR capacity with Auto / Manual mode operation to be fabricated out of 14 guage CRCA sheet steel Powder coated with provision for capacitor mounted inside the panel with adequate number of louvers and powder coated with approved shade and having following specific components(refer particular specification) with Aluminium Busbars of suitable size, earth bus of adequate capacity, double earth connection to all switches, internal rigid connection etc. including suitable chambers, front open, top cable entry , free standing panel consisting of the following as per standards. Incomer 200A TPN Isolator - 1 No. 200 A TPN best conductivity Aluminium busbar with SMC supports, heat shrinkable sleeves etc. as per ISS - 1set Multifunction Digital Panel meter to read V, A, F, PF, kW, kVA, kVAR, kWh, kVAh, kVARh Class 1.0 - 1 Set RYB indicators (LED Pilot type) with 2A Control MCB and toggle switches- 1 Set 200/5A 15VA CL 1.0 Metering CTs - 3 Sets Microprocessor based intelligent, 8 step IPFC relay with PF display - 1 No. Out goings 63A, 10kA C Curve TP MCB - 1 Nos 16A, 10kA C Curve TP MCB - 6 Nos Capacitor duty contactors working on 3 Phase 415V AC supply of the following ratings wired with Pilot LED indication for ON & OFF, Push Buttons for Manual ON & OFF operation using suitable NO / NC contacts for all the stages 25 kVAr- 1 Nos 10 kVAr- 6 Nos 480 V,50 Hz Double di-electric polypropylene (MPP heavy duty) Capacitors of the following ratings including fixed compensation for low load losses. 25 kVAr- 1 Nos 10 kVAr- 6 Nos Supports The panel shall be supported to ground using framework fabricated out of MS Flats / Angles etc. painted with two coats of Zinc Chromate primer and two coats of enamel paint. The framework shall be firmly supported to ground using suitable cement concrete plinth. The Panel Board shall be provided with 25 x 3mm copper earth bus for the full length. Painting letters / identifications for the incoming and outgoing switches, cable, fuse sizes, etc., in white enamel paint.</p>						
	APFC 85KVAR	1.000					1.000
	Total						1.000
	Total Quantity in set						1.000
2.012	OD254566/2022-2023						
	Supply, installation, testing & commissioning of best quality sheet steel, phosphatised and painted, dust and vermin proof enclosure (IP43) Vertical TPN Double door DB including copper bus bar, neutral link, earth bus and DIN rail suitable for fixing RCCB + Isolator (8 module)as incomer and SP/TP MCB as outgoing etc. on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing, dressing the DB including termination etc. as required. (Including closing vaccant slots using Dummy)						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Vertical TPN Double door DB -12 Way						
		1.000					1.000
	Total						1.000
						Total Quantity in job	1.000
2.013	OD254568/2022-2023						
	Supply and providing the following MCCB/ RCCB / MCB / MCB Isolators/COS etc. to the existing DBs / MCS / Junction Boxes etc. including giving proper termination using suitable Bananna copper lugs, sleeves, insulation etc. complete. 63A, 100mA 3Ph RCCB						
	63A, 100mA 3Ph RCCB						
		1.000					1.000
	Total						1.000
						Total Quantity in no	1.000
2.014	OD254572/2022-2023						
	Supply and providing the following MCCB/ RCCB / MCB / MCB Isolators/COS etc. to the existing DBs / MCS / Junction Boxes etc. including giving proper termination using suitable Bananna copper lugs, sleeves, insulation etc. complete. 63A, 4P MCB Isolator						
	63A 4P MCB Isolator						
		1.000					1.000
	Total						1.000
						Total Quantity in no	1.000
2.015	OD254573/2022-2023						
	Supply and providing the following MCCB/ RCCB / MCB / MCB Isolators/COS etc. to the existing DBs / MCS / Junction Boxes etc. including giving proper termination using suitable Bananna copper lugs, sleeves, insulation etc. complete. 6A to 32A , 10kA SP MCB						
	6A to 32A , 10kA SP MCB						
		36.000					36.000
	Total						36.000
						Total Quantity in no	36.000
2.016	OD254574/2022-2023						
	HT Power Cables "Supply & laying 11KV stranded compact circular aluminium conductor, conductors screened with extruded semi conducting compound XLPE insulated, insulation screened with extruded semi conducting compound in combination with copper tape (0.3 kA for 1 sec.), cores laid up, inner sheath of PVC tape, galvanized steel flat strip armoured, and overall PVC sheathed cable of the following sizes in the existing cable trench conforming to IS: 7098 part II 1985 with latest amendments." 3C x 300 Sqm						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	HT Power Cables - 3C x 300 Sqmm						
	3C X 300	25.000					25.000
	Total						25.000
	Total Quantity in metre						25.000
2.017	OD254575/2022-2023						
	"Supply & laying 11KV stranded compact circular aluminium conductor, conductors screened with extruded semi conducting compound XLPE insulated, insulation screened with extruded semi conducting compound in combination with copper tape (0.3 kA for 1 sec.), cores laid up, inner sheath of PVC tape, galvanized steel flat strip armoured, and overall PVC sheathed cable of the following sizes in the existing cable trench conforming to IS: 7098 part II 1985 with latest amendments." 3C x 150 Sqm						
	HT Power Cables - 3C x 150 Sqmm						
		25.000					25.000
	Total						25.000
	Total Quantity in metre						25.000
2.018	OD254578/2022-2023						
	HT Cable Terminations "Supplying and making Outdoor cable end jointing with heat shrinkable jointing kit, including lugs and other jointing materials, for for following sizes, XLPE aluminium conductor cable of 11 KV grade as required." 3C x 150 Sqmm						
	HT cable Termination 3C x 150 Sqmm						
		2.000					2.000
	Total						2.000
	Total Quantity in set						2.000
2.019	OD254586/2022-2023						
	HT Cable Terminations "Supplying and making Outdoor cable end jointing with heat shrinkable jointing kit, including lugs and other jointing materials, for for following sizes, XLPE aluminium conductor cable of 11 KV grade as required." 3C x 300 Sqmm						
	HT cable Termination 3C x 300 Sqmm						
		2.000					2.000
	Total						2.000
	Total Quantity in set						2.000
2.020	OD254590/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 4C x 400 Sqmm						
	LT Power Cables 4C x 400 mm2	50.000					50.000
	Total						50.000
							Total Quantity in metre
							50.000
2.021	OD254591/2022-2023 LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 3.5C x 185 Sqmm						
	LT Power Cables 3.5C x 185 mm2	25.000					25.000
	Total						25.000
							Total Quantity in metre
							25.000
2.022	OD254592/2022-2023 LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 3.5C x 50 Sqmm						
	LT Power Cables 3.5C x 50 mm2	40.000					40.000
	Total						40.000
							Total Quantity in metre
							40.000
2.023	OD254599/2022-2023 LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 3.5C x 35 Sqmm						
	LT Power Cables 3.5C x 35 mm2	30.000					30.000
	Total						30.000
							Total Quantity in metre
							30.000
2.024	OD254594/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 4C x 16 Sqmm						
	LT Power Cables 4C x 16 mm2						
		30.000					30.000
	Total						30.000
						Total Quantity in metre	30.000
2.025	OD254595/2022-2023 LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 4C x 6 Sqmm						
	LT Power Cables 4C x 6 mm2						
		35.000					35.000
	Total						35.000
						Total Quantity in metre	35.000
2.026	OD254597/2022-2023 LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 4C x 4 Sqmm						
	LT Power Cables 4C x 4 mm2						
		110.000					110.000
	Total						110.000
						Total Quantity in metre	110.000
2.027	OD254593/2022-2023 LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 3C x 35 Sqmm						
	LT Power Cables 3C x 35 mm2						
		60.000					60.000
	Total						60.000
						Total Quantity in metre	60.000
2.028	OD254605/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 3C x 25 Sqmm						
	LT Power Cables 3C x 25 mm2						
		100.00 0					100.000
	Total						100.000
						Total Quantity in metre	100.000
2.029	OD254606/2022-2023 LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 3C x 16 Sqmm						
	LT Power Cables 3C x 35 mm2						
		50.000					50.000
	Total						50.000
						Total Quantity in metre	50.000
2.030	OD254607/2022-2023 LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 3C x 6 Sqmm						
	LT Power Cables 3C x 6 mm2						
		45.000					45.000
	Total						45.000
						Total Quantity in metre	45.000
2.031	OD254608/2022-2023 LT Power Cables Supply & laying UG A2XFY,PVC insulated and PVC sheathed Aluminium conductor armoured power cable of 1.1 KV grade of following sizes through trench/wall/ ceiling. 3C x 4 Sqmm						
	LT Power Cables 3C x 4 mm2						
		180.00 0					180.000
	Total						180.000
						Total Quantity in metre	180.000
2.032	OD254609/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply & laying UG 2XFY, PVC insulated and PVC sheathed Copper conductor armoured Power / Control cable of 1.1 KV grade of the following sizes through trench/wall/ ceiling 4C x 2.5 Sqmm						
	LT Power Cables 4C x 2.5 mm2						
		50.000					50.000
	Total						50.000
						Total Quantity in metre	50.000
2.033	OD254611/2022-2023 Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3.5C x 185 Sqmm						
	.						
		2.000					2.000
	Total						2.000
						Total Quantity in job	2.000
2.034	OD254612/2022-2023 Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3.5C x 50 Sqmm						
	.						
		2.000					2.000
	Total						2.000
						Total Quantity in job	2.000
2.035	OD254613/2022-2023 Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3.5C x 35 Sqmm						
	.						
		2.000					2.000
	Total						2.000
						Total Quantity in job	2.000
2.036	OD254614/2022-2023 Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 4C x 16 Sqmm						
	.						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
		30.000					30.000
	Total						30.000
						Total Quantity in job	30.000
2.037	OD254615/2022-2023 Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 4C x 6 Sqmm						
	.						
		2.000					2.000
	Total						2.000
						Total Quantity in job	2.000
2.038	OD254616/2022-2023 Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 4C x 4 Sqmm						
	.						
		10.000					10.000
	Total						10.000
						Total Quantity in job	10.000
2.039	OD254619/2022-2023 Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3C x 35 Sqmm						
	.						
		2.000					2.000
	Total						2.000
						Total Quantity in job	2.000
2.040	OD254620/2022-2023 Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3C x 25 Sqmm						
	.						
		8.000					8.000
	Total						8.000
						Total Quantity in job	8.000
2.041	OD254621/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3C x 16 Sqmm						
	.	4.000					4.000
	Total						4.000
						Total Quantity in job	4.000
2.042	OD254622/2022-2023						
	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3C x 6 Sqmm						
	.	4.000					4.000
	Total						4.000
						Total Quantity in job	4.000
2.043	OD254623/2022-2023						
	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3C x 4 Sqmm						
	.	16.000					16.000
	Total						16.000
						Total Quantity in job	16.000
2.044	OD254624/2022-2023						
	Supplying and making end termination with brass compression gland and copper lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 KV grade as required. 4C x 2.5 Sqmm						
	.	6.000					6.000
	Total						6.000
						Total Quantity in job	6.000
2.045	OD254630/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	Supply & drawing the following size of FR Multi-core PVC Insulated and PVC sheathed Copper conductor round flexible wire manufactured with bright annealed bare copper conductor as per IS 8130/1984 Insulated and sheathed with electrical grade PVC compound as per IS 5831/1984 generally conforming to IS 694/1990 for working voltage up to and including 1100 V through existing PVC conduit / casing capping wall. 3C x 0.5 Sqmm							
	Copper Cables 3C x 0.5 mm ²	100.00 0					100.000	
	Total						100.000	
	Total Quantity in metre							100.000
2.046	OD254632/2022-2023							
	Supply & drawing the following size of FR Multi-core PVC Insulated and PVC sheathed Copper conductor round flexible wire manufactured with bright annealed bare copper conductor as per IS 8130/1984 Insulated and sheathed with electrical grade PVC compound as per IS 5831/1984 generally conforming to IS 694/1990 for working voltage up to and including 1100 V through existing PVC conduit / casing capping wall. 3C x 1.5 Sqmm							
	Copper Cables 3C x 1.5 mm ²	100.00 0					100.000	
	Total						100.000	
	Total Quantity in metre							100.000
2.047	OD254633/2022-2023							
	Supply and providing the following size of ISI Marked rigid PVC conduits with specials confirming to IS 9537/1983 on surface / concealed position making good the damages made etc.complete. 20mm dia 1.5mm thick							
	20 mm PVC conduit	400.00 0					400.000	
	Total						400.000	
	Total Quantity in metre							400.000
2.048	OD254634/2022-2023							
	Supply and providing the following size of ISI Marked rigid PVC conduits with specials confirming to IS 9537/1983 on surface / concealed position making good the damages made etc.complete. 25mm dia 1.5mm thick							
	20 mm PVC conduit	300.00 0					300.000	
	Total						300.000	

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total Quantity in metre						300.000
2.049	OD254635/2022-2023						
	Supply and providing the following size of ISI Marked rigid PVC conduits with specials confirming to IS 9537/1983 on surface / concealed position making good the damages made etc.complete. 32mm dia 1.5mm thick						
	32 mm PVC conduit						
		150.00 0					150.000
	Total						150.000
	Total Quantity in metre						150.000
2.050	OD254638/2022-2023						
	Supply & providing Capping / Casing of good quality of the following sizes. 20 mm						
		100.00 0					100.000
	Total						100.000
	Total Quantity in metre						100.000
2.051	OD254640/2022-2023						
	Supply & providing Capping / Casing of good quality of the following sizes. 25 mm						
		100.00 0					100.000
	Total						100.000
	Total Quantity in metre						100.000
2.052	OD254643/2022-2023						
	UG Cable Tamper Protection "Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep)and re-filling etc as required" 50 mm						
	Tamper protection 50mm GI						
		20.000					20.000
	Total						20.000
	Total Quantity in metre						20.000
2.053	OD254650/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	"Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep)and re-filling etc as required" 80 mm							
	Tamper protection 80mm GI	20.000					20.000	
	Total						20.000	
	Total Quantity in metre							20.000
2.054	OD254651/2022-2023							
	"Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep)and re-filling etc as required" 100 mm							
	Tamper protection 100mm GI	20.000					20.000	
	Total						20.000	
	Total Quantity in metre							20.000
2.055	OD254652/2022-2023							
	Circuit Mains Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 2 X 4 sq. mm + 1 X 4 sq. mm earth wire							
	Sub main 2 X 4 sq. mm + 1 X 4 sq. mm earth wire	150.00 0					150.000	
	Total						150.000	
	Total Quantity in metre							150.000
2.056	OD254653/2022-2023							
	Circuit Mains Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire							
	Sub main 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	300.00 0					300.000	
	Total						300.000	
	Total Quantity in metre							300.000
2.057	OD254655/2022-2023							

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Circuit Mains Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire						
		500.00 0					500.000
	Total						500.000
						Total Quantity in metre	500.000
2.058	OD254656/2022-2023 Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required 150 mm width X 50 mm depth X 1.6 mm thickness						
		50.000					50.000
	Total						50.000
						Total Quantity in metre	50.000
2.059	OD254657/2022-2023 Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required 300 mm width X 50 mm depth X 1.6 mm thickness						
		50.000					50.000
	Total						50.000
						Total Quantity in metre	50.000
2.060	OD254658/2022-2023 Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required 600 mm width X 50 mm depth X 2 mm thickness						
		30.000					30.000
	Total						30.000
						Total Quantity in metre	30.000
2.061	OD254659/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 120 sq. mm and upto 400 sq. mm						
	.	50.000					50.000
	Total						50.000
						Total Quantity in metre	50.000
2.062	OD254660/2022-2023						
	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Upto 35 sq. mm						
	.	640.00					640.000
	Total	0					640.000
						Total Quantity in metre	640.000
2.063	OD254661/2022-2023						
	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 35 sq. mm and upto 95 sq. mm						
	.	40.000					40.000
	Total						40.000
						Total Quantity in metre	40.000
2.064	OD254663/2022-2023						
	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 95 sq. mm and upto 185 sq. mm						
	.	25.000					25.000
	Total						25.000
						Total Quantity in metre	25.000
2.065	OD254665/2022-2023						
	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required. Upto 35 sq. mm (clamped with 1mm thick saddle)						
	.						

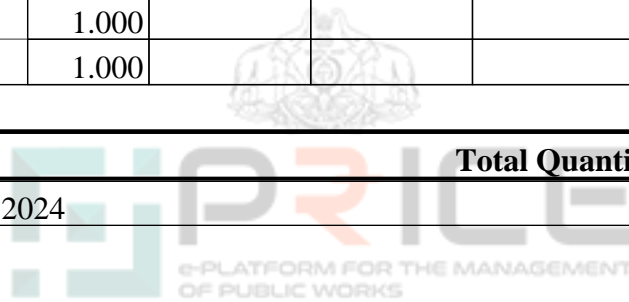
SI No	Specification	No	Length	Width	Depth	Cf	Quantity
		10.000					10.000
	Total						10.000
						Total Quantity in metre	10.000
2.066	OD254666/2022-2023 Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required. Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)						
	.						
		10.000					10.000
	Total						10.000
						Total Quantity in metre	10.000
2.067	OD254667/2022-2023 Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required. Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)						
	.						
		10.000					10.000
	Total						10.000
						Total Quantity in metre	10.000
2.068	OD254668/2022-2023 Supply and erection of 6mm MS Chequered Plates for covering cable trench. (Rate for 10 Sq.m)						
	.						
		100.00 0					100.000
	Total						100.000
						Total Quantity in kg	100.000
2.069	OD254670/2022-2023 Supply route marker with 10cmx10cm GI plate 5mm thick with inscriptions there on bolted / welded to 35x35x6mm angle iron 60cm long and fixing the same in ground as required.						
	.						
		50.000					50.000
	Total						50.000
						Total Quantity in no	50.000
2.070	OD254673/2022-2023 Supply route marker with 10cmx10cm GI plate 5mm thick with inscriptions there on bolted / welded to 35x35x6mm angle iron 60cm long and fixing the same in ground as required.						
	.						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
		25.000					25.000
	Total						25.000
						Total Quantity in no	25.000
2.071	OD254674/2022-2023						
	Earthing with 1200x1200x12.5 mm CI - Plate Earthing thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.						
		8.000					8.000
	Total						8.000
						Total Quantity in set	8.000
2.072	OD254676/2022-2023						
	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. (but with charcoal/ coke and salt) as required.						
	Earthing using GI pipe 40 mm dia						
		6.000					6.000
	Total						6.000
						Total Quantity in set	6.000
2.073	OD254677/2022-2023						
	Supply and clamping the following size of strips on surface of wall/ parapet/ existing cable tray using clamps fabricated from 20 X 3 mm GI flat duly painted or heavy duty GI spacer saddles spacing of clamps not exceeding 1 m, making good the damages, colour washing etc. as required (for horizontal run) 25 x 3 mm copper strip						
	25x3 copper strip						
		650.00 0					650.000
	Total						650.000
						Total Quantity in metre	650.000
2.074	OD254678/2022-2023						
	Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required						
	2.65 mm copper conductor (12 SWG)						
	12 SWG copper conductor						
		350.00 0					350.000
	Total						350.000
						Total Quantity in metre	350.000
2.075	OD254680/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply and drawing bare earthing conductors of the following sizes along with wiring/cables and giving connection as required 3.15 mm copper conductor (10 SWG)						
	10 SWG copper conductor						
		450.00 0					450.000
	Total						450.000
	Total Quantity in metre						450.000
2.076	OD254684/2022-2023						
	Supply and drawing bare earthing conductors of the following sizes along with wiring/cables and giving connection as required 4.00 mm copper conductor (8 SWG)						
	8 SWG copper conductor						
		650.00 0					650.000
	Total						650.000
	Total Quantity in metre						650.000
2.077	OD254685/2022-2023						
	Supply and drawing bare earthing conductors of the following sizes along with wiring/cables and giving connection as required 4.75 mm copper conductor (6 SWG)						
	6 SWG copper conductor						
		100.00 0					100.000
	Total						100.000
	Total Quantity in metre						100.000
2.078	OD254686/2022-2023						
	Supply and providing 6 mm thick & 1 m wide electrical grade chequered type rubber mat to withstand 3.3 KV dielectric strength conforming to IS 5429/ 1969.						
	6mm thick rubber mat						
	WTP site	5.000					5.000
	Raw water PH	5.000					5.000
	Total						10.000
	Total Quantity in sqm						10.000
2.079	OD254688/2022-2023						
	Supply and providing 12 mm thick & 1 m wide electrical grade chequered type rubber mat to withstand 15 KV dielectric strength conforming to IS 5429/ 1969 in front of the HT Breaker Panel.						
	12mm thick rubber mat						
	WTP site	2.000					2.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Raw water PH	2.000					2.000
	Total						4.000
	Total Quantity in sqm						4.000
2.080	OD254689/2022-2023						
	Supply and providing 5 Kg. Dry Chemical Powder type Fire Extinguisher with hose and clamps including fixing it to wall as required.						
	fire extinguisher						
	WTP site	2.000					2.000
	Raw water PH	2.000					2.000
	Total						4.000
	Total Quantity in no						4.000
2.081	OD254690/2022-2023						
	Supply and providing 9 Litre capacity GI Fire Bucket painted in post office red with primer coat of red oxide and written with white paint 'FIRE'; mounted on MS angle frame work/ wall bracket filled with fine sand, painting the bracket/ floor stand including making good the damages, colour washing etc. as required.						
	.						
	WTP site	4.000					4.000
	Raw water PH	2.000					2.000
	Total						6.000
	Total Quantity in no						6.000
2.082	OD254691/2022-2023						
	Supply and providing First Aid Chart duly framed and placed in a conspicuous location for clear vision.						
	.						
	WTP site	1.000					1.000
	Raw water PH	1.000					1.000
	Total						2.000
	Total Quantity in set						2.000
2.083	OD254692/2022-2023						
	Supply and providing Laminated Electrical Schematic diagram framed and placed in a conspicuous location for clear vision.						
	Schematic electrical						
	WTP site	1.000					1.000
	Raw water PH	1.000					1.000
	Total						2.000
	Total Quantity in set						2.000
2.084	OD254693/2022-2023						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply & providing Aluminium anodised Danger Notice Board of size 200 x 150 mm. with inscriptions (both in English and Malayalam) and conventional Skull and Bone in Red colour at locations as directed by the Engineer in Charge						
	Danger Notice						
		15.000					15.000
	Total						15.000
	Total Quantity in no						15.000
2.085	OD254694/2022-2023						
	Preparation and submission of latest scheme drawings, Voltage drop calculations, Earthing design & fault level calculations to the Electrical Inspectorate including all MV additions recently made and obtaining approval, arranging inspection for entire installation, obtaining sanction orders for the electrical installation, complete (Including all incidental and statutory expenses).						
	scheme drawings and approval						
	WTP site	1.000					1.000
	Raw water PH	1.000					1.000
	Total						2.000
	Total Quantity in L.S						2.000
2.086	OD94736/2023-2024						



SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>MSB Supply, fabrication, erection, testing and commissioning of cubicle type fully compartmentalised, dust tight, vermin proof, water proof 250A LT- Main MV Panel falling to IP54 category fabricated out of 16 SWG CRCA Sheet Steel painted as per standards with Alumimium Busbars of suitable size, earth bus of adequate capacity, double earth connection to all switches, internal rigid connection etc. including suitable chambers, front open, top cable entry with water proof shrouding, free standing panel consisting of the following as per standards (All switches shall confirm to conforming to IEC 60947-2 standards) Incommer 250A FP Microprocessor based MCCB (26kA) - 1 Nos. Restricted Earth Fault Relay - 1 Set 250A TPN best conductivity Aluminium busbar with SMC supports, heat shrinkable sleeves etc. as per ISS - 1set RYB indicators (LED Pilot type) with 2A Control MCB and toggle switches - 4 Set Multifunction Digital Panel meter to read V, A, F, PF, kW, kVA, kVAR, kWh, kVAh, kVARh Class 1.0 - 1 Set 200/5A CL 1.0, 15VA Metering CTs - 1 Set Outgoings: 100A, 16kA FP MP MCCB - 4 Nos. &quot;Surge Protection &quot;Pluggable type surge arrester with potential free contact, thermal disconnecter &quot;provision for inbuilt common remote indication for defective arresters to connect between Line and Neutral and one number Spark Gap type arrester to connect between Neutral and Earth of following ratings including base element &quot;pluggable arresters. Nominal voltage 230V, 50Hz, Nominal Discharge current 30 kA (8/20 sec) for Line to Neutral &quot;50 kA (8/20 sec) for Neutral to Earth, Maximum Discharge Current I_{max} 50 kA (8/20 sec) - 1Set&quot;; Supports The panel shall be supported to ground using framework fabricated out of MS Flats / Angles etc. painted with two coats of Zinc Chromate primer and two coats of enamel paint. The framework shall be firmly supported to ground using suitable cement concrete plinth. The Panel Board shall be provided with 25 x 3mm copper earth bus for the full length. Painting letters / identifications for the incoming and outgoing switches, cable, fuse sizes, etc., in white enamel paint. The board shall be fabricated in such a way that future extenstion be possible. Supply and installing 50 kvar APP capacitor for no load compansation</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	MSB-Raw water PH						
		1.000					1.000
	Total						1.000
						Total Quantity in job	1.000
2.087	OD94737/2023-2024 SSB Supply, fabrication, erection, testing and commissioning of cubicle type fully compartmentalised, dust tight, vermin proof, water proof 200A MV Panel falling to IP54 category fabricated out of 16 SWG CRCA Sheet Steel painted as per standards with Aluminium Busbars of suitable size, earth bus of adequate capacity, double earth connection to all switches, internal rigid connection etc. including suitable chambers, front open, top cable entry with water proof shrouding, free standing panel consisting of the following as per standards (All switches shall confirm to conforming to IEC 60947-2 standards). Incoming : 100A TPN Isolator - 1 No. 200A TPN best conductivity Aluminium busbar with SMC supports, heat shrinkable sleeves etc. as per ISS - 1set Multifunction Digital Panel meter to read V, A, F, PF, kW, kVA, kVAR, kWh, kVAh, kVARh Class 1.0 - 1 Set RYB indicators (LED Pilot type) with 2A Control MCB and toggle switches - 1 Set 100/5A CL 1.0, 15VA Metering CTs - 1 Set Outgoings: 10A TP D curve MCB (10kA) - 1 Nos. Supports The panel shall be supported to ground using framework fabricated out of MS Flats / Angles etc. painted with two coats of Zinc Chromate primer and two coats of enamel paint. The framework shall be firmly supported to ground using suitable cement concrete plinth. The Panel Board shall be provided with 25 x 3mm copper earth bus for the full length. Painting letters / identifications for the incoming and outgoing switches, cable, fuse sizes, etc., in white enamel paint. The board shall be fabricated in such a way that future extension be possible						
	SSB-Raw water PH						
		1.000					1.000
	Total						1.000
						Total Quantity in job	1.000
2.088	OD94738/2023-2024						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply, installation, testing & commissioning of best quality sheet steel, phosphatised and painted, dust and vermin proof enclosure (IP43) Vertical TPN Double door DB including copper bus bar, neutral link, earth bus and DIN rail suitable for fixing RCCB + Isolator (8 module)as incommer and SP/TP MCB as outgoings etc. on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing, dressing the DB including termination etc. as required. (Including closing vaccant slots using Dummy)						
	Vertical TPN Double door DB 12way at Raw water PH						
	Vertical TPN Double door DB 12way	1.000					1.000
	Total						1.000
	Total Quantity in job						1.000
2.089	OD94739/2023-2024						
	Supply and providing the following MCCB/ RCCB / MCB / MCB Isolators/COS etc. to the existing DBs / MCS / Junction Boxes etc. including giving proper termination using suitable Bananna copper lugs, sleeves, insulation etc. complete.						
	RCCB/MCB/MCB Isolator						
		1.000					1.000
	Total						1.000
	Total Quantity in job						1.000
3	Supply erection,testing and commissioning of centrifugal pump set for CWPM from WTP to Kuruvilacity discharge of 25 lps for a head of 110 m.						
3.001	OD34959/2023-2024						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply erection, testing and commissioning of CF pumpset having a discharge of 25 lps for a head of 110 m from WTP to Kuruvilacity. Supply and erection of CF pump set with the following specification &lt;br&gt;1. Pump&lt;br&gt;Supply, erection, testing and commissioning of KWA pre-qualified reputed make Centrifugal pump sets with Bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts & amp; nts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable concrete foundation including cost of cement sand and metal etc. complete; The duty condition is as follows; Discharge - 25 lps; Total head - 110 mtrs; Size of pumping main pipe - 200 mm DI, Length-2615 m; Speed- Less than 1500 rpm. 2. Motor : Supply, erection, testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V/3300V (select the suitable). The motor shall confirm to IE2/IE3 as per IS12615-2018 including providing suitable concrete foundation including cost of cement sand and metal etc. complete For 3300v motors digital motor protection relay shall be included in starter as per present CEA regulation. Flexible coupling shall be used for coupling of pumps and motors</p> <p>3. Starter: Supply, erection, testing and commissioning of suitable rating Soft starter suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per CEA regulation and code of practice etc. complete</p> <p>4. Panel board (suitable for operating two pump sets but one pump set at a time: Supply, erection, testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos of suitable capacity MCCB as out going (the two MCCBs are interlocking with each other) providing suitable size Aluminium bus bar inter connect the above MCCBs and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. Complete and provided with a common earth bus for the entire panel and inter connect with the MCCBs as per CEA regulation and code of practice. The panel shall be fitted on a common base frame on suitable foundation with provision to accommodate 2 soft starters. (Specification may be modified if there is only one pump set by changing 2 Nos of out going as one out going and the provision of interlocking may be avoided)</p> <p>5. Cabling work : Supply, laying, testing and commissioning of suitable size XLPE cables for the above pump set from panel board to starter and from starter to motor. considering energy conservation.</p> <p>6. Earthing : Supply of all materials and providing suitable earthing by using suitable size pipe/plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards.</p> <p>7. Capacitor: Supply, erection, testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall confirm to IS 2834.</p> <p>8. Valves; Supply of suitable size best quality heavy duty ISI marked CI double flanged sluice valve and Non return valve with suitable pressure rating. Fitting of valves shall include proper RCC support especially for Non return valves. In case of</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works.
9. Suction and delivery pipe connections; Supply and fitting of suitable size best quality GI/MS pipe of thickness not less than 8mm for a total length of 10 m. suitable for the above pump set and suitable size foot valve and connecting the suction pipe and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with the valves and suitable specials to connect with the pumping main.
If the dia of suction pipe is above 80 mm CI pipes
specials shall be provided.
.Also two year Warrantee and Supply of ELCB/RCCB to be added at panel for safety.						
	WTP-Kuruvilacity	2.000					2.000
	Total						2.000
						Total Quantity in no	2.000
3.002	OD90424/2023-2024						
	Approval from Electrical Inspectorate /KSEB L						
	Approval from Electrical Inspectorate						
		1.000					1.000
	Total						1.000
						Total Quantity in L.S	1.000
4	Supply erection, testing and commissioning of centrifugal pump set for CWPM from WTP to Swargamedu discharge of 9.5 lps for a head of 165 m.						
4.001	OD90897/2023-2024						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply erection, testing and commissioning of CF pumpset having a discharge of 9.5 lps for a head of 165 m from WTP-Swargamedu. Supply and erection of CF pump set with the following specification; 1. Pump&amp;lt;br&amp;gt;Supply, erection, testing and commissioning of KWA pre-qualified reputed make Centrifugal pump sets with Bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts &amp; nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable concrete foundation including cost of cement sand and metal etc. complete&lt;br&amp;gt;The duty condition is as follows&lt;br&amp;gt;Discharge - 9.5 lps; Total head - 165 mtrs; Size of pumping main pipe - 150 mm DI, Length-2710 m; Speed- Less than 1500 rpm.</p> <p>2. Motor : Supply, erection, testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V/3300V (select the suitable). The motor shall confirm to IE2/IE3 as per IS12615-2018 including providing suitable concrete foundation including cost of cement sand and metal etc. complete For 3300v motors digital motor protection relay shall be included in starter as per present CEA regulation. Flexible coupling shall be used for coupling of pumps and motors</p> <p>3. Starter: Supply, erection, testing and commissioning of suitable rating Soft starter suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per CEA regulation and code of practice etc. complete</p> <p>4. Panel board (suitable for operating two pump sets but one pump set at a time: Supply, erection, testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos of suitable capacity MCCB as out going (the two MCCBs are interlocking with each other) providing suitable size Aluminium bus bar inter connect the above MCCBs and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. Complete and provided with a common earth bus for the entire panel and inter connect with the MCCBs as per CEA regulation and code of practice. The panel shall be fitted on a common base frame on suitable foundation with provision to accommodate 2 soft starters. (Specification may be modified if there is only one pump set by changing 2 Nos of out going as one out going and the provision of interlocking may be avoided)</p> <p>5. Cabling work : Supply, laying, testing and commissioning of suitable size XLPE cables for the above pump set from panel board to starter and from starter to motor. considering energy conservation.</p> <p>6. Earthing : Supply of all materials and providing suitable earthing by using suitable size pipe/plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards.</p> <p>7. Capacitor: Supply, erection, testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall confirm to IS 2834.</p> <p>8. Valves&amp;gt;Supply of suitable size best quality heavy duty ISI marked CI double flanged sluice valve and Non return valve with suitable pressure rating. Fitting of</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply erection, testing and commissioning of CF pumpset having a discharge of 32 lps for a head of 140 m from WTP-Jamespadi. 1. Pump: Supply, erection, testing and commissioning of KWA pre-qualified reputed make Centrifugal pump sets with Bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts, nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable concrete foundation including cost of cement sand and metal etc. complete. The duty condition is as follows; Discharge - 32 lps Total head &ndash; 140 mtrs. ; Speed- Less than 1500 rpm. 2. Motor : Supply, erection, testing and commissioning of KWA pre-qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V/3300V (select the suitable). The motor shall confirm to IE2/IE3 as per IS12615-2018 including providing suitable concrete foundation including cost of cement sand and metal etc. complete For 3300v motors digital motor protection relay shall be included in starter as per present CEA regulation. Flexible coupling shall be used for coupling of pumps and motors</p> <p>3. Starter: Supply, erection, testing and commissioning of suitable rating Soft starter suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per CEA regulation and code of practice etc. complete</p> <p>4. Panel board (suitable for operating two pump sets but one pump set at a time: Supply, erection, testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as in-comer and 2 Nos of suitable capacity MCCB as out going (the two MCCBs are interlocking with each other) providing suitable size Aluminium bus bar inter connect the above MCCBs and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. Complete and provided with a common earth bus for the entire panel and inter connect with the MCCBs as per CEA regulation and code of practice. The panel shall be fitted on a common base frame on suitable foundation with provision to accommodate 2 soft starters. (Specification may be modified if there is only one pump set by changing 2 Nos of out going as one out going and the provision of interlocking may be avoided)</p> <p>5. Cabling work : Supply, laying, testing and commissioning of suitable size XLPE cables for the above pump set from panel board to starter and from starter to motor. considering energy conservation.</p> <p>6. Earthing : Supply of all materials and providing suitable earthing by using suitable size pipe/plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards.</p> <p>7. Capacitor: Supply, erection, testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall confirm to IS 2834.</p> <p>8. Valves: Supply of suitable size best quality heavy duty ISI marked CI double flanged sluice valve and Non return valve with suitable pressure rating. Fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works..</p> <p>9. Suction and delivery pipe connections: Supply and fitting of suitable size best quality GI/MS pipe of thickness not less than 8mm for a total length of 10 m. suitable for the above pump set and suitable size foot valve and connecting the suction pipe and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with the valves and suitable specials to connect with the pumping main .If the dia of suction pipe is above 80 mm CI pipes specials shall be</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	provided;.Also two year Warrantee and Supply of ELCB/RCCB to be added at panel for safety.						
	WTP-JAMESPADI						
		2.000					2.000
	Total						2.000
						Total Quantity in no	2.000
5.002	OD90436/2023-2024						
	Approval from Electrical Inspectorate /KSEB L						
	Approval from Electrical Inspectorate						
		1.000					1.000
	Total						1.000
						Total Quantity in L.S	1.000
6	Supply erection,testing and commissioning of centrifugal pump set for CWPM from WTP to Poopara discharge of 38 lps for a head of 146 m.						
6.001	OD90914/2023-2024						



SI No	Specification	No	Length	Width	Depth	Cf	Quantity						
	;8. Valves&lt;br&gt;Supply of suitable size best quality heavy duty ISI marked CI double flanged sluice valve and Non return valve with suitable pressure rating. Fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works.&lt;br&gt;9. Suction and delivery pipe connections&lt;br&gt;Supply and fitting of suitable size best quality GI/MS pipe of thickness not less than 8mm for a total length of 10 m. suitable for the above pump set and suitable size foot valve and connecting the suction pipe and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with the valves and suitable specials to connect with the pumping main.&lt;br&gt;If the dia of suction pipe is above 80 mm CI pipes &lt;br&gt;specials shall be provided.&lt;br&gt;.Also two year Warrantee and Supply of ELCB/RCCB to be added at panel for safety.												
	WTP-POOPARA	2.000					2.000						
	Total						2.000						
						Total Quantity in no	2.000						
6.002	OD90438/2023-2024												
	Approval from Electrical Inspectorate /KSEB L												
	Approval from Electrical Inspectorate												
		1.000					1.000						
	Total						1.000						
						Total Quantity in L.S	1.000						
7	Supply erection, testing and commissioning of 55HP Vertical turbine pump set at raw water pump house												
7.001	OD85413/2023-2024												

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply and erection of Vertical Turbine pump set with following specifications. Supply, erection, testing and commissioning of VT Pump sets at RAW water pump house- 96 lps discharge and 30 m head. Size of&amp;lt;br&amp;gt;pumping main:350 mm DI K9, Length of pumpingmain:800 m, Maximum length of column pipe: below 1.5m,&amp;lt;br&amp;gt;Casing: Cast iron, Speed: below 1500 rpm Supply,&amp;lt;br&amp;gt;erection, testing and commissioning of KWA approved make ISI marked high efficiency type , self water&amp;lt;br&amp;gt;lubricated above floor discharge type vertical turbine pump with bronze impeller , SS shaft , MS fabricated (minimum 8 mm) flanged column assembly with strainer and all accessories conforming to IS 1710. The pump shall be coupled with suitable vertical hollow motor specified in item No. 2. Casing: Cast&amp;lt;br&amp;gt;iron&amp;lt;br&amp;gt;Speed: below 1500 rpm Impeller : Enclosed type Bronze LTB 2 dynamically balanced as per&amp;lt;br&amp;gt;ISO1940 grade 3 standards&amp;lt;br&amp;gt;Sleeve: SS 304 &amp;lt;br&amp;gt;Colum shaft - SS 410 &amp;lt;br&amp;gt;Pump shaft - SS 316&amp;lt;br&amp;gt;Bowl Casing ring: Bronze LTB 2 Epoxy painted MS Column pipe 10 mm Thick flanged ends each having length below 1.5 Meter. Strainer fabricated with SS 304 Bearings for spider and bowl synthetic Rubber with outer brass/CI shell &amp;lt;br&amp;gt;Discharge Head Bearing - Thrust / angular roller &amp;lt;br&amp;gt;Ratchet&amp;lt;br&amp;gt;assembly unlocking Centrifugally action &amp;lt;br&amp;gt;Minimum Efficiency: suitable to achieve minimum 70% efficiency for pump &amp;lt;br&amp;gt;motor&amp;lt;br&amp;gt;(Vibrations should be limited as per HIS 9.6.4.3 standards.&amp;lt;br&amp;gt;Pump performance tolerance should be subject to Hydrate Institute standard class A - No negative&amp;lt;br&amp;gt;tolerance is applicable in efficiency and no positive tolerance in power). Supply, erection, testing and commissioning of suitable rating high efficiency Kirlosker/crompton/BHEL/Marthon/Alstom or equivalent KWA approved make EF1 squirrel cage Induction,SPDP, Vertical hollow shaft motor suitable for direct&amp;lt;br&amp;gt;coupling with the above pump having RPM below 1500 or nearest capable to operate on voltage of&amp;lt;br&amp;gt;415V(+/-10%)50 hz(+/-3%)AC 3 phase,50 degree Ambient temp.rise.</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>conforming to relevant IS. Motor&amp;lt;br&amp;gt;shall be energy efficient and supporting certificates to prove EF1 or EF2.&amp;lt;br&amp;gt;Design, supply, erection, testing and commissioning of medium voltage sheet steel clad, totally enclosed, dust tight and vermin proof, indoor floor mounted cubicle type switch board fabricated out of 16 swg. Mild steel sheet for operation 3 phase, 415 volts 50 Hz, AC supply system. The panel board for one working a a time with 500 A SFU as incomer, change over switch for pumpsets, incoming main and 2 nos 250 Amps TPN SFU with HRC fuse as outgoing. The panel board consisting of voltmeter with selector switch, Ammeter CTS with selector switch, indication lamps necessary control&amp;lt;br&amp;gt;fuse base with HRC fuse and Neutral link etc.also one year Warrantee and Supply of ELCB/RCCB to be added at panel for safety. The switch board surface treated after degreasing, pickling, phosphating etc anti-rust primer coating followed by two coats of spray paint of approved shade as standard construction practice approved by the Kerala Electrical Inspectorate standard and as standard practice.&amp;lt;br&amp;gt;Supply and fitting of suitable rating metalized heavy duty poly propylene (MDXL)power&amp;lt;br&amp;gt;capacitor with capacitor fixing stand, connecting copper cables, termination etc. suitable for the above motor as per IE rules. KVAR shall be provided for enhancing existing power factor to unity.&amp;lt;br&amp;gt;Supply and installation of suitable size, CI Double Flanged heavy duty Sluice Valve with cap PN 2.0, conforming to IS 14846 - 2000. The size shall not be less than the size of pump delivery&amp;lt;br&amp;gt;Supply and installation&amp;lt;br&amp;gt;of suitable size best quality, ISI marked heavy duty cast iron, double flanged reflux non return valve (PN2) as per IS: 5312, The size shall not be less than the size of pump delivery&amp;lt;br&amp;gt;Starter&amp;lt;br&amp;gt;Supplying&amp;lt;br&amp;gt;a complete integrated soft starter panel capable of operating the motor having a protection level of IP 40 or more with integrated bypass contactor in the panel and motor protection relay having parameters as per IE rules with a power control MCB and line power contactor and the starting current shall be 2.50- 3.50 times the</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>normal full load current of motor with ammeter, voltmeter and phase indicators, space&amp;lt;br&amp;gt;heaters, floor mounting type and having an insulation level of 1100 V. The standard is to be IEC 60947- 4.2.&amp;lt;br&amp;gt; Supply and installation of 150mm dia, Glycerence filled pressure gauge with stop cock/ valve to be fitted in a stand or wall visible while operating the valves with copper tube connections suitable for the above pumps.&amp;lt;br&amp;gt; Supply of all materials and providing suitable plate earthing with 200x1200x12mm CI plate buried in ground at a depth of 3m from ground level with alternate layers of charcoal and salt including the supply and fixing of 32mm dia perforated GI pipe, funnel for watering purposes, with MS/CI cover etc. as per IE standards conforming of IS 3043/87.&amp;lt;br&amp;gt; Supply, laying and giving earthing connections to motors, starters, capacitors, panel boards etc. using suitable size copper flat as per IE rules.&amp;lt;br&amp;gt; Supply, laying, termination and connecting of (Suitable size) (AYFY/XLPE) insulated armoured Copper cable for working voltage up to 1100 volt confirming to relevant IS specification to lead cable from panel board to starter and starter to motor and starter to capacitor including terminations materials such as gland, socket, gland earth etc. as per IE rules.&amp;lt;br&amp;gt; Erecting the above motor pump set in suitable concrete foundation including fixing the starter, motor, cubical panel board including cost of all materials etc...Installing the electrical items, wiring and earthing, giving connection etc.as directed by the departmental officers as per IE rules and ISI specifications, fitting suction and delivery pipes and specials, Sluice valve, Reflux valve, Gauges etc. including clamping wherever necessary etc. complete and trial run for a period of one week to the satisfaction of the authority officers&amp;lt;br&amp;gt;Including cost of all &amp;lt;br&amp;gt; the components specified above including 2 year warrantee</p>						
	55HP	2.000					2.000
	Total						2.000
						Total Quantity in no	2.000
7.002	OD85432/2023-2024						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with						
	.	2.000					2.000
	Total						2.000
	Total Quantity in set						2.000
7.003	OD85447/2023-2024						
	Earthing strip of 50 x 6 mm GI strip						
	.						
		1.000	2.000				2.000
	Total						2.000
	Total Quantity in metre						2.000
7.004	OD85452/2023-2024						
	Submitting application to KSEBL for power connection and power extension						
	.						
	L.S	1.000	1.000				1.000
	Total						1.000
	Total Quantity in L.S						1.000
8	Supply Erection ,testing and commissioning of 5 Ton capacity crane at CW pump house						
8.001	OD94754/2023-2024						
	Design manufacture and supply of HOT overhead travers trolley crane 5 ton capacity chain-pully block and geared roley having wall to wall horizontal movement etc. for smooth functioning of the crane as per IS Specification including all fittings and all incidental charges including painting the exposed surface with following specifications Type and construction of crane Single girder HOT (Design code IS 3832) Hook IS 8610 Load chain IS 6216(Alloy steel Grade 80) Hand chain IS 2420 MS Grade 30 brake type self actuating screw friction and disc type.						
	HOT overhead crane & chain pully						
		1.000					1.000
	Total						1.000
	Total Quantity in set						1.000
8.002	OD94753/2023-2024						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Erection and commissioning of HOT over head crane including providing and fixing suitable size 45 x 45 MS base plate 18mm thick over the existing RCC shade 8 Nos brackets by drilling, fixing belt of suitable size and grouting with CM and welding LT girder ISHB 250 x 125 with MS base plate and also fixing the ends of the LT girder to the size suitably and also providing LT rail with suitable end stoppage. This also included provision for box type fabricated from rolled steel section and carriages of suitable construction with all good quality accessories line gears, wheels, axils, rubber buffers, bearing etc., the work also consists of all tools and equipment, labour supervision, load testing all safety devices and clarification of crane after completion of work. The rate inclusive of MS base plate and steppers and carriages etc.						
	Erection and commissioning						
		1.000					1.000
	Total						1.000
	Total Quantity in L.S						1.000
8.003	OD94752/2023-2024						
	Supply, Fabrication and erection of long travel (LT) girder 300 mm depth fixing to the base plate at the existing bracket at site including cutting, hoisting and fixing in position and painting the exposed surface with two coats of zinc chromic primer and 2 coats of synthetic enamel paint including cost labor charges and conveyance of all materials etc., complete and as directed by the departmental officers.						
	ISMB 300x 150						
		1.000				0.6000 00	0.600
	Total						0.600
	Total Quantity in tonne						0.600
8.004	OD94751/2023-2024						
	OD68953/2023-2024						
	Supply, Fabrication and erection of long travel(LT rains polished square bars of size 80 x 80mm thick to the LT girder and painting to the exposed surface as detailed in above item complete						
	80*80 square bars						
		1.500					1.500
	Total						1.500
	Total Quantity in quintal						1.500