GENERAL ABSTRACT

Jal Jeevan Mission (JJM)-WSS to Arakkulam and Velliyamattom (part) panchayath-Part II-Package IV-Supplying, erecting, testing and commissioning of Clear water pump sets and allied works in various pump houses of Arakkulam Velliyamattom Part II-General Civil Work

Sl No	Head Description		Amount
1	Supply, Erection, Testing and commissioning Pumpsets from well to WTP Discharge 42 lps		1053093.26
2	Supply, Erection, Testing and commissioning Pumpsets from WTP to Alanickal estate Disc 124m		1780459.54
3	Supply, Erection, Testing and commissioning Pumpsets from WTP to Intermediate Discharge		1391613.94
4	Supply, Erection, Testing and commissioning Pumpsets from WTP to Kavumpady Discharg		620644.86
5	Supply, Erection, Testing and commissioning Pumpsets from WTP to KSEB filter house Di 164m		5023112.10
6	Supply, Erection, Testing and commissioning Pumpsets from Intermediate to Audit road Dis 139m	1402415.90	
7	Supply, Erection of 250 KVA Indoor Transfo and required accessories at WTP	rmer with panel board	2559265.77
	Т	otal Estimation PAC	13830605.37
Sl No	Description	Percentage/LS	Amount
$\mathbf L$	Lumsum Heading		
L.001	Connection charges - KSEB		
		@LS	300000.00
	То	tal Lumsum Amount	300000.00
С	Extra Charges		
C.001	Provision for GST		
	13830605.37	2489508.97	
		Grand Total	16620114.34
		Round off	9885.66
		Rounded Total(Rs)	16630000.00
	Rupees One Crore Sixty Six Lakh Thirty Tho	ousand	

Approved By
Praveen K S
(PEN:G10554), Superintending Engineer

DETAILED ESTIMATE

<u>Jal Jeevan Mission (JJM)-WSS to Arakkulam and Velliyamattom (part) panchayath-Part II-</u> Package IV-Supplying, erecting, testing and commissioning of Clear water pump sets and allied

works in various pump houses of Arakkulam Velliyamattom Part II-General Civil Work

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
1	Supply, Erection, WTP Discharge 42	Testing an 2 lps, Hea	nd commissiond 15m	oning of VT	type RW Pui	mpsets fro	om well to
1.001	OD286735/2023-2	2024					



Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
Sl No	Supply, erection, thouse- 42 lps discled main: 250 DI K9, I below 1.5m, Casin Commissioning of water to WTP; ;T15m, Size of pump Cast iron, Speed: KWA approved m floor discharge typ fabricated (minimulaccessories confor hollow motor spect; Impeller: Enclose 3 standards; Sleeve	esting and harge and Length of ag: Cast ir Raw Wa he hydrau bing main below 150 ake ISI more vertical um 8 mm ming to Istified in it age type Bree: SS 304	I commission 15m head fr pumping ma on, Speed: b ter; pump selic paramete: 250 DI K9, 00 rpm; Supparked high e turbine pum) flanged cols 1710. The em No. 2. Caronze LTB 2; Colum shaf	ning of VT Pom well to 12 in:180 m, Malelow 1500 rpts at Well curs Discharge Length of puly, ;erection, fficiency type with bronz lumn assembly pump shall bearing: Cast; in dynamically ft - SS 410; F	ump sets at F2th mile. Siz aximum leng om; ;Supply, m pump hous: Discharge mping main: testing and oe, self water se impeller, sly with strair e coupled w	RAW wate e of pump th of colu- Erection se for Pum ;42lps, To 180 m, ; o commission ;lubricate SS shaft, her and all th suitable pelow 150 per ;ISO1 SS 316;	er pump ping and mping Raw ptal head: Casing: oning of ed above MS l e vertical 00 rpm 1940 grade Bowl
	3 standards; Sleeve Casing ring: Bronzeach having length spider and bowl sy Thrust / angular ro Efficiency: suitabl; (Vibrations should be tolerance should be tolerance is applicated erection, testing ar Kirlosker/crompto squirrel cage Induction in the above purior of the standard specific for relevant IS. Modification is performed in the standard specific for mounted cuboperation 3 phase,	ze LTB 21 in below 1. In below 1. In below 1. In below 1. In the low the continuous properties and comminus properties in the complex of the	Epoxy painte 5 Meter. Straubber with o het; assembly we minimum ted as per HI to Hydrate Inficiency and ssioning of september of the september	d MS Columainer fabricate uter brass/CI y unlocking 0, 70% efficients 9.6.4.3 standstitute standing positive to po	an pipe 10 miled with SS 3 shell; Disch Centrifugally acy for pumper dards.; Pumper dards.; Pumper dards A colerance in particular KWA anotor suitable exambient temporting certion, testing a stight and vut of 16 swg.	m Thick for the control of the contr	langed ends ngs for d Bearing - community, motor nance cive Supply, make EF1 et ;coupling e on voltage onforming o prove issioning of oof, indoor et sheet for
	working a a time vincoming main and board consisting of indication lamps in one year Warrante switch board surfacoating followed beconstruction practices standard practice. propylene (MDXL cables, termination KVAR shall be prinstallation of suita 2.0, conforming to delivery; Supply a cast iron, double fluot be less than the soft starter panel comore with integrat parameters as per features.	with 500 Ad 2 nos 25 f voltmete ecessary of e and Supce treated by two coalce approving Supply an etc. suita ovided for able size, of IS 14846 and installal langed refe apable of ed bypass	A SFU as inc 50 Amps TPI er with select control; fuse poly of ELCE after degrea ats of spray power of the act and fitting of the act capacitor with able for the act ar enhancing of the act of the act of the act of the act on the act of the act	omer, change N SFU with I for switch, And base with HI B/RCCB to be sing, pickling azint of approperala Electric suitable ration in capacitor find bove motor a existing power anged heavy size shall not able size best rn valve (PNZ) y; Starter; Su e motor having the panel an	e over switch HRC fuse as mmeter CTS RC fuse and le added at pag, phospating oved shade as al Inspectorag metalized lexing stand, cas per CEA refactor to unduty Sluice at be less than equality, ISI 2) as per IS: pplying; a cong a protection di motor prote	for pumpoutgoing. with sele Nutral linual for sagetc antises standard te standard te standard equilation nity.; Sup Valve with the size marked h 5312, The omplete iron level o ection rel	creates, and as creates and

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	contactor and the sof motor with amount type and having an an arisamply and install cock/ valve to be for copper tube conneror tube connecting of the supply and fixing the starter of the supply and fixing the connecting of the suitable size copperor connecting of the suitable size copperor tube connecting of the suitable size copperor tube to suitable size copperor tube size copperor tube to suitable size copperor tube size copperor tube size copperor tube connecting of the suitable size copperor tube connecting of the size copperor tub	neter, volution insulation of 1 itted in a ctions sui plate eart ground le of 32mm as per IE sonnections er flat as per table size per to 1100 o starter arials such e above motor, cul electrical partmenta delivery is wherever ction of the control	tmeter and plan level of 11 somm dia, 0 stand or wall table for the hing with 20 vel with alter dia preforate standards corto motors, some CEA regulation (AYFY/X) volt confirm and starter to as gland, some otor pump social panel be items, wirin a lofficers as pipes and sper necessary he authority	hase indicato 00 V. The standard indicato 100 V. The standard indicator of the standard including and earthing per CEA regreets. Sluice of ficers.; Including the standard including and earthing per CEA regreets. Sluice of the standard including and earthing the standard including and earthing and earthing including including and earthing including incl	rs, space; he andard is to alled pressure e operating to see a specific charcoal and annel for water so 3043/87.; itors, panel to supply, lay ed armoured arthetc. as period concrete found control of alleg, giving control of and to valve, Reflue and trial run	aters, floo be IEC 60 gauge wi he valves all materi buried in g and salt ince ering purp Supply, la boards etce ing, termi Copper ca cation to la icitor includer CEA re undation in materials annection e ISI specifi ix valve, Can for a per	or mounting 1947- 4.2. Ith stop with ials and ground at a cluding the coses, with lying and lead to able for ead cable adding gulation including stc.as ications, Gauges etc. Field of one
	Supply, erection, t house- 42 lps discl					RAW water	er pump
	12 HP pump set	2.000					2.000
	Total						2.000
1.002	000000000000000000000000000000000000000			,	Total Quant	tity in no	2.000
1.002	Earthing with G.I. and providing mas watering pipe of 2 DSR(E&M) 2	earth plat onry encl .7 metre l 2018 ITE	osure with cong etc. with	over plate ha	ving locking	arrangem	nent and
		2.000					2.000
	Total						2.000
				To	tal Quantity	y in each	2.000
1.003	OD286792/2023-2	2024					
	Preparation of Electrical connecti	ons from	KSEB				
	Preparation of Ele Electrical connecti			ng completio	n report at K	SEBL and	d getting
		1.000					1.000
	Total						1.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity				
		Total Quantity in se									
1.004	OD286795/2023-2	2024									
	Providing and fixing electrode including	roviding and fixing 3.15mm(10 SWG) copper conductor in 40mm GI pipe from earth lectrode including connection with brass nut, bolt, etc (10M).									
	Earthing conductor of size 10 SWG										
		2.000					2.000				
	Total						2.000				
		Total Quantity in set 2.000									
2	Supply, Erection, Alanickal estate D	Supply, Erection, Testing and commissioning of CF type CW Pumpsets from WTP to Alanickal estate Discharge 9 lps, Head 124m									
	OD286736/2023-2										



Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	pump with the val- main. If shall be provided.o be added at panel	s & s					
	Supply erection, testing and commissioning of CF pumpset having a discharg for a head of 124 m from WTP to Alanickal estate.						
	22HP PUMP SET	2.000					2.000
	Total						2.000
					Total Quant	ity in no	2.000
2.002	OD299476/2023-2	2024					
	Earthing with G.I. and providing mas watering pipe of 2 DSR(E&M)	onry encl .7 metre l	osure with cong etc. with	over plate ha	ving locking	arrangem	ent and
	PLATE EARTHIN	NG	-63	<u> </u>			
		2.000	(A-IB)	2 4141			2.000
	Total		1000	Service .			2.000
				To	otal Quantity	y in each	2.000
2.003	OD286761/2023-2	2024		T [_⊏		
	Providing and fixi connection with br					ectrode in	cluding
	Earthing conducto	r of size 6	SWG				
		2.000					2.000
	Total						2.000
				,	Fotal Quant	ity in set	2.000
3	Supply, Erection, 'Intermediate Disch				type CW Pun	npsets fro	m WTP to
2.001	OD286800/2023-2	2024					

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
	Supply erection, testing and commissioning of CF pumpset having a discharge of 6 lps for a head of 132 m from WTP to Intermediate. Supply and erection of CF pump set with the following specification 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 & plate 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 - 6 lps Total head - 132 mtrs Size of pumping main pipe -									
	100 mm GI, Length-2400 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 IS 12615-									
	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 CEA regulation 2010. Flexible coupling shall be used for coupling of pumps and motors. 3. Starter Supply, erection, testing and commissioning of suitable rating (Fully Automatic starter with air break contact for less than 100 HP and for above 100 HP FCMA starters to be used.) starter suitable for the above motor with over voltage and under voltage protection, single phase									
	preventer, over load contactor as per Complete. <br&gbut a="" cubical="" floor<="" one="" pump="" set="" th="" type=""><th>nd relay w EA regula gt;<br& nt a time)& mounted l</br& </th><th>ith motor pro ation 2010 and agt;4. Panel b Su MS fabricate</th><th>otection relay of code of pro ooard (suitable pply, erection d dust and ve</th><th>with main cactice etc. le for operation, testing and ermin proof of</th><th>ontactor and two pure commissions to the common com</th><th>and bypass ump sets sioning of control</th></br&gbut>	nd relay w EA regula gt; <br& nt a time)& mounted l</br& 	ith motor pro ation 2010 and agt;4. Panel b Su MS fabricate	otection relay of code of pro ooard (suitable pply, erection d dust and ve	with main cactice etc. le for operation, testing and ermin proof of	ontactor and two pure commissions to the common com	and bypass ump sets sioning of control			
	panel board consists suitable capacity Mother) providing suffitted with 3 Nos of Ammeter with selector the entire pane code of practice. T	MCCB as a state of indicator switch and interest and interest and interest are as a second control of the contr	out going (the Aluminium or lamps, 1 N ch etc. Comperconnect with	the two MCCI in bus bar into o. volt meter olete and provide the MCCB	As are interlower connect the with selector wided with a sas per CEA	ocking wit e above Nor switch, common A regulation	th each ICCBs and 1 No. earth bus on 2010 and			
	foundation. (Speci changing 2 Nos of avoided) <br&gr commissioning of to starter and from Earthing<br&gr< th=""><th>fication m out going t;5. Cablir suitable s starter to</th><th>nay be modif g as one out g ng work<b ize XLPE ca motor. cons</b </th><th>ied if there is going and the or>Supply bles for the a idering energ</th><th>s only one)& provision of laying, test above pump gy conservati</th><th>lt;br>pf interlocking and set from pon.<br< th=""><th>oump set by king may be banel board >6.</th></br<></th></br&gr<></br&gr 	fication m out going t;5. Cablir suitable s starter to	nay be modif g as one out g ng work <b ize XLPE ca motor. cons</b 	ied if there is going and the or>Supply bles for the a idering energ	s only one)& provision of laying, test above pump gy conservati	lt;br>pf interlocking and set from pon. <br< th=""><th>oump set by king may be banel board >6.</th></br<>	oump set by king may be banel board >6.			
	suitable size pipe/pearthing to motor, Capacitor <br&gcapacitor 2834<br&duty="" c<="" for="" is="" isi="" marked="" nto="" th="" the=""><th>plate earth starter, pa gt;Supply, notor to ge gt;8. Valv</th><th>ning GI/copp anel board etc erection, tes et a power fa es
< th=""><th>er strip burie c. as per IE s sting and con ctor above 0. ;Supply of su</th><th>d in ground a tandards.< nmissioning of 95. The capa nitable size b</th><th>and giving ;br>7. of heavy on the citor shall best quality</th><th>duty APP confirm heavy</th></br><></th></br&gcapacitor>	plate earth starter, pa gt;Supply, notor to ge gt;8. Valv	ning GI/copp anel board etc erection, tes et a power fa es
< th=""><th>er strip burie c. as per IE s sting and con ctor above 0. ;Supply of su</th><th>d in ground a tandards.< nmissioning of 95. The capa nitable size b</th><th>and giving ;br>7. of heavy on the citor shall best quality</th><th>duty APP confirm heavy</th></br><>	er strip burie c. as per IE s sting and con ctor above 0. ;Supply of su	d in ground a tandards.< nmissioning of 95. The capa nitable size b	and giving ;br>7. of heavy on the citor shall best quality	duty APP confirm heavy			
	pressure rating. Fireturn valves. In case well as delivery side connections< brothickness not less and suitable size for flanges, nut and be	tting of values of posterior des for ea >Suppithan 8mm poot valve	alves shall in- itive suction sy repair wor ly and fitting for a total le and connecti	clude proper pump set slucks. <br&g of suitable sength of 10 m ong the suction</br&g 	RCC supportice valve short;9. Suction a ize best qual a suitable for n pipe and v	t especial ould be in and delive ity GI/MS the above alve with	lly for Non a suction as ery pipe S pipe of re pump set suitable			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity		
	pump with the val If the di provided. <br& added at panel for</br& 	ia of sucti gt;. Also t	on pipe is ab	ove 80 mm	CI pipes &an	np; specia	ls shall be		
		Supply erection, testing and commissioning of CF pumpset having a discharge of 6 lps for a head of 132 m from WTP to Intermediate.							
	16 HP Pumpset	2.000					2.000		
	Total						2.000		
				ı	Total Quant	ity in no	2.000		
3.002	OD299478/2023-2	2024							
	Earthing with G.I. and providing mas watering pipe of 2 DSR(E&M)	sonry encl .7 metre l	osure with cong etc. with	over plate ha	ving locking	arrangem	ent and		
	PLATE EARTHIN	NG		nan.					
		2.000	T. S.				2.000		
	Total		(A1)	X ODA			2.000		
				To	otal Quantity	y in each	2.000		
3.003	OD286806/2023-2	2024		3 11					
	Providing and fixi including connecti	ng 4.75 m	nm (6 SWG) rass nut, bol	copper cond t, spring was	uctor from ea her in 40mm	arth electr GI pipe (ode 10M).		
	Earthing conducto	r of size 1	l0 SWG	VVOICES					
		2.000					2.000		
	Total						2.000		
				ŗ	Total Quant	ity in set	2.000		
4	Supply, Erection, 'Kavumpady Disch	Testing ar	nd commissions, Head 45m	oning of CF	type CW Pun	npsets fro	m WTP to		
					_				

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
	Supply erection, testing and commissioning of CF pumpset having a discharge of 6 lps for a head of 45 m from WTP to Kavumpady. Supply and erection of CF pump set with the following specification 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 & 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 The duty condition is as follows Discharge - 6 lps Total head - 45 mtrs Size of pumping main pipe - 100 mm GI, Length- 700m 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 IS 12615-2018 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 CEA regulation 2010. Flexible coupling shall be used for coupling of pumps and motors. Lt;br>3. Starter Supply, erection, testing and commissioning of suitable rating (Fully Automatic starter with air break contact for less than 100 HP and for above 100 HP FCMA starters to be used.) 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 2010 and code of practice etc.									
	complete. <br&g but one pump set a cubical type floor panel board consis suitable capacity N other) providing su fitted with 3 Nos of</br&g 	nt a time) of ting of 1 laces as a laces are a laces as a laces as a laces are a laces as a laces are a la	Lt;br>Su MS fabricate No. suitable out going (the Aluminiun	pply, erection didust and vecapacity MC le two MCCI bus bar interest.	n, testing and ermin proof of CB as incom Bs are interlower connect the	d commission common common common control of the common co	sioning of control Nos of th each ICCBs and			
	Ammeter with selector the entire pane code of practice. T foundation. (Speci changing 2 Nos of avoided) <br&gg< th=""><th>ector swite I and inter The panel of fication mand fout going</th><th>ch etc. Comp connect with shall be fitted hay be modifing as one out g</th><th>plete and prove the MCCB on a committed if there is going and the</th><th>vided with a s as per CEA on base fram s only one)& provision of</th><th>common of regulation of the consultation of th</th><th>earth bus on 2010 and able oump set by</th></br&gg<>	ector swite I and inter The panel of fication mand fout going	ch etc. Comp connect with shall be fitted hay be modifing as one out g	plete and prove the MCCB on a committed if there is going and the	vided with a s as per CEA on base fram s only one)& provision of	common of regulation of the consultation of th	earth bus on 2010 and able oump set by			
	commissioning of to starter and from Earthing
 suitable size pipe/p earthing to motor, Capacitor<br&g< th=""><th>suitable s starter to ;Supply o plate earth starter, pa</th><th>ize XLPE ca motor. cons of all materia ning GI/copp anel board etc</th><th>bles for the a idering energ ls and provid er strip burie c. as per IE s</th><th>above pump s by conservation ing suitable of d in ground attandards. Lt.</th><th>set from p on.<bro earthing b and giving ;br>7.</bro </th><th>>6. by using g double</th></br&g<></br> 	suitable s starter to ;Supply o plate earth starter, pa	ize XLPE ca motor. cons of all materia ning GI/copp anel board etc	bles for the a idering energ ls and provid er strip burie c. as per IE s	above pump s by conservation ing suitable of d in ground attandards. Lt.	set from p on. <bro earthing b and giving ;br>7.</bro 	>6. by using g double			
	capacitor for the m to IS 2834 <br& duty ISI marked C pressure rating. Fit return valves. In ca well as delivery sign</br& 	notor to ge gt;8. Valv I double f tting of va ase of pos	et a power faves
 langed sluice lives shall in- itive suction</br> 	ctor above 0.;Supply of substitution of substi	95. The capa nitable size b Non return va RCC supportice valve sho	acitor shall est quality alve with set et especial ould be in	Il confirm y heavy suitable ly for Non suction as			
	connections <brathickness and="" both<="" flanges,="" for="" less="" not="" nut="" size="" suitable="" td=""><th>>Supp than 8mm oot valve</th><th>ly and fitting for a total le and connecti</th><th>of suitable sength of 10 m</th><th>ize best qual n. suitable for n pipe and v</th><th>ity GI/MS r the abov alve with</th><th>S pipe of re pump set suitable</th></brathickness>	>Supp than 8mm oot valve	ly and fitting for a total le and connecti	of suitable sength of 10 m	ize best qual n. suitable for n pipe and v	ity GI/MS r the abov alve with	S pipe of re pump set suitable			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity		
	main. If shall be provided.	pump with the valves and suitable specials to connect with the pumping main. Lt;br>If the dia of suction pipe is above 80 mm CI pipes & shall be provided. Lt;br>. Also two year Warrantee and Supply of ELCI be added at panel for safety.							
	Supply erection,te for a head of 45 m				mpset having	g a dischar	rge of 6 lps		
	6HP PUMP SET	2.000					2.000		
	Total						2.000		
				ı	Total Quant	tity in no	2.000		
4.002	OD299523/2023-2	2024							
	Earthing with G.I. and providing mas watering pipe of 2 DSR(E&M)	onry encl .7 metre l	osure with co	over plate ha	ving locking	arrangem	nent and		
	PLATE EARTHIN	NG		SeA.					
		2.000	G8				2.000		
	Total		40	X OLD			2.000		
				To	tal Quantity	y in each	2.000		
4.003	OD286929/2023-2	2024		3 11					
	Providing and fixi including connecti	ng 25 x 31 on with b	mm copper s rass nut, bol	t <mark>rip</mark> in 40mm t, sprn3g.	GI pipe froi	m earth el	ectrode		
	Earthing conducto	r of size 1	0 SWG	WORKS					
		2.000					2.000		
	Total						2.000		
				ŗ	Fotal Quant	ity in set	2.000		
5	Supply, Erection, Testing and commissioning of CF type CW Pumpsets from WTP to KSEB filter house Discharge 24 lps, Head 164m								
5 001	OD286935/2023-2	2024							

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity			
	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 & mp; specials to provided. .Also two year Warrantee and Supply of ELCB/RO be added at panel for safety.									
	Supply erection, testing and commissioning of CF pumpset having a dischalps for a head of 164 m from WTP to KSEB filter house.									
	75 HP Pumpset	2.000					2.000			
	Total						2.000			
				,	Total Quant	ity in no	2.000			
5.002	OD299525/2023-2	2024								
	Earthing with G.I. and providing mas watering pipe of 2 DSR(E&M) 2	onry enclo .7 metre lo 2018 ITEM	osure with cong etc. with	over plate ha	ving locking	arrangem	ent and			
	PLATE EARTHIN		-	140						
		2.000	- (E)Š				2.000			
	Total						2.000			
	Total Quantity in each									
				10	tai Quantiti	y in each	2.000			
5.003	OD286987/2023-2	2024		3-11	tai Quantity	y in each	2.000			
5.003	OD286987/2023-2 Providing and fixing with brass nut, bol	ng 25 x3 1	nm copper s	7 11			2.000			
5.003	Providing and fixing	ng 25 x3 r t, sprn3g.	e-PLATFOR	7 11						
5.003	Providing and fixing with brass nut, bol	ng 25 x3 r t, sprn3g.	e-PLATFOR	7 11						
5.003	Providing and fixing with brass nut, bol	ng 25 x3 r t, sprn3g. r of size 2	e-PLATFOR	7 11			connection			
5.003	Providing and fixing with brass nut, bol Earthing conducto	ng 25 x3 r t, sprn3g. r of size 2	e-PLATFOR	trip from ear		including	connection			
5.003	Providing and fixing with brass nut, bol Earthing conducto	ng 25 x3 r t, sprn3g. r of size 2 2.000	5x3 ad commission	trip from ear	th electrode i	including ity in set	2.000 2.000 2.000			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
Sl No	Specification Supply erection,te for a head of 139n set with the follow testing and commi with Bronze/SS in with coupling, coucoupling the pump suitable concrete from lete & lt; br & glps & lt; br & gt; Tota 100 mm GI, Lengt Motor & lt; br & gt; Sreputed make hori suitable for the above 12018 including proand metal etc. comincluded in starter coupling of pumps and commissionin for less than 100 H for the above moto preventer, over loading to the starter over loading to the starter over loading to the starter coupling of pumps and commissionin for less than 100 H for the above moto preventer, over loading the starter over loading the star	sting and a from Intring special speci	commissionicermediate to fication <bof 39="" above="" and="" condition="" cord="" foundation="" including="" is="" kwa="" mtrs<br="" presonant="" the="">Section, testing id shaft foot working 3 pe). The motoritable concress 3300v motors.<br&gble (furabove="" 100="" and="" concress="" concrete="" fer="" of="" rating="" state="" th="" the="" the<="" to="" voltage=""><th>ng of CF pur Audit road. It r>1. Pum qualified rep I pump casin n bolts & amp base plate etc ost of cements as follows& r><br& peed- Less the g and commis mounted TE hase 50 Hz A r shall confir- ete foundation rs digital mon 2010. Flexil t;3. Starter& ally Automat HP FCMA standard voltandard voltandard.</br& </th><th>mpset having Supply and ep lit; br lit grand and make Congress of points and and make the sand and mak</th><th>g a discharge rection of Supply, er Centrifuga ble type bomplete sincluding getal etc. scharge - Gumping man. 2. KWA precage inductorking votage inductorking votage inductorking votage inductorking votage in relay shall be uply, erection, single gen, single gen, single generation, single generation of the supply generation of the supp</th><th>rge of 6 lps f CF pump rection, l pump sets ase plate uitable for providing 6 nain pipe - qualified ction motor pltage 415 12615- ment sand all be used for ion, testing k contact ter suitable phase</th></br&gble></bof>	ng of CF pur Audit road. It r>1. Pum qualified rep I pump casin n bolts & amp base plate etc ost of cements as follows& r> <br& peed- Less the g and commis mounted TE hase 50 Hz A r shall confir- ete foundation rs digital mon 2010. Flexil t;3. Starter& ally Automat HP FCMA standard voltandard voltandard.</br& 	mpset having Supply and ep lit; br lit grand and make Congress of points and and make the sand and mak	g a discharge rection of Supply, er Centrifuga ble type bomplete sincluding getal etc. scharge - Gumping man. 2. KWA precage inductorking votage inductorking votage inductorking votage inductorking votage in relay shall be uply, erection, single gen, single gen, single generation, single generation of the supply generation of the supp	rge of 6 lps f CF pump rection, l pump sets ase plate uitable for providing 6 nain pipe - qualified ction motor pltage 415 12615- ment sand all be used for ion, testing k contact ter suitable phase
	for less than 100 F for the above moto preventer, over load contactor as per C complete. Lit; br Lit but one pump set a cubical type floor panel board consist suitable capacity of the providing suffitted with 3 Nos of Ammeter with self for the entire pane code of practice. I foundation. (Specichanging 2 Nos of avoided) Lit; br Lit br Li	iP and for or with over dealth and relay we had regular to the partial and interpretation in the panel fication in the panel ficatio	above 100 I er voltage and ith motor produced and ith motor produced and ith motor produced and ith motor 2010 and ith motor 2010 and ith motor gates and ith motor lamps, 1 Nech etc. Compar connect with shall be fitted as one out go motor. Consider and ith motor consistency and ith material in and its motor. Consistency and its motor its motor. Consistency and its material in and its motor. Consistency and its material in and its motor. Consistency and its motor its motor its motor. Its motor its moto	HP FCMA stand under voltage decode of proportion relayed code of proportion of the two MCCH of	arters to be usage protection with main of actice etc. le for operation, testing and ermin proof of CB as incomes are interlocated with selector with select	ised.) starton, single pontactor a contactor a common of the common of t	ter suitable phase and bypass amp sets sioning of control Nos of the each MCCBs and 1 No. earth bus on 2010 and able bump set by king may be banel board >6. by using g double duty APP all confirm
	to IS 2834 <br&duty and="" as="" both="" c="" case="" delivery="" fireturn="" flanges,="" for="" in="" isi="" less="" marked="" not="" nut="" pressure="" rating.="" siconnections<brathickness="" siz<="" size="" suitable="" th="" the="" to="" valves.="" well=""><th>I double to titing of variations of variations of posterior ease of posterior ease than 8mm to the total valve</th><th>Ilanged sluice alves shall in- itive suction sy repair wor ly and fitting for a total le and connecti</th><th>e valve and No clude proper pump set slucks. <br&g 10="" mng="" of="" sength="" suction<="" suitable="" th="" the=""><th>Non return var RCC supportice valve short;9. Suction a size best qual n. suitable for pipe and v</th><th>alve with a rt especial ould be in and delive lity GI/MS r the abov alve with</th><th>suitable lly for Non suction as ery pipe S pipe of re pump set suitable</th></br&g></th></br&duty>	I double to titing of variations of variations of posterior ease of posterior ease than 8mm to the total valve	Ilanged sluice alves shall in- itive suction sy repair wor ly and fitting for a total le and connecti	e valve and No clude proper pump set slucks. <br&g 10="" mng="" of="" sength="" suction<="" suitable="" th="" the=""><th>Non return var RCC supportice valve short;9. Suction a size best qual n. suitable for pipe and v</th><th>alve with a rt especial ould be in and delive lity GI/MS r the abov alve with</th><th>suitable lly for Non suction as ery pipe S pipe of re pump set suitable</th></br&g>	Non return var RCC supportice valve short;9. Suction a size best qual n. suitable for pipe and v	alve with a rt especial ould be in and delive lity GI/MS r the abov alve with	suitable lly for Non suction as ery pipe S pipe of re pump set suitable

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	pump with the val main. If shall be provided. be added at panel	the dia of 	suction pipe	is above 80	mm CI pipes	s & s	pecials /RCCB to
	Supply erection,te for a head of 139n	sting and on the from Internation	commissioni ermediate to	ng of CF pui Audit road	mpset having	a dischar	ge of 6 lps
	16 HP Pumpset	2.000					2.000
	Total						2.000
				,	Total Quant	ity in no	2.000
6.002	OD299526/2023-2	2024					
	Earthing with G.I. and providing mas watering pipe of 2 DSR(E&M) 2 PLATE EARTHIN	onry enclo .7 metre lo 2018 ITEM	osure with co	over plate ha	ving locking	arrangem	ent and
	PLATE EARTHII		-60				2.000
	T-4-1	2.000	A-18				2.000
	Total		115.45	Та	tal Quantity	z in oooh	2.000 2.000
6.003	OD288388/2023-2	2024		-	itai Quantiti	in cacii	2.000
0.003	Preparation of Ele Electrical connects	ctrical dra	wings, givir KSEB	ng completio	n report at K	SEBL and	l getting
	Preparation of Ele Electrical connect			ng completio	n report at K	SEBL and	l getting
		1.000					1.000
	Total						1.000
				r	Total Quant	ity in set	1.000
6.004	OD288389/2023-2	2024				<u>.</u>	
	Providing and fixi connection with br					ectrode in	cluding
	Earthing conducto	or of size	5 SWG				
		2.000					2.000
	Total						2.000
				ŗ	Fotal Quant	ity in set	
7	Supply, Erection of accessories at WT		A Indoor Tra				2.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	11KV DOUBLE F materials and prov ISMB/ISMC GI co of 400A, 11KV ga required length, 1 insulators and inte proper copper sock for erecting the joi epoxy primer and providing 4 Nos pi interconnecting the per standard constr	riding 11K pated joist ang operate sets of 9.6 r connecti kets and ir st poles, repoxy pairipe earthire pits and	V double por of 9.5m height ed 3 insulators of KV, 9 KA I ons of the abacluding all a muffing the part of recommanding using 40m equipments	ole structure ught, 100x50nr type AB sw Lightning arrove items us associated civoles and pain nended shade am GI pipe as using 6swg c	using 2Nos. anm, GI channy itches with overstors, pin in sing 8mm dia wil works like anting of parts a wherever not sper IS standscopper condu	175x85minel cross a operating insulators, a copper we foundation with 2 coecessary a dard and inctor etc. co	m arms, 3 sets handles of Disc vire with on works pats of and complete as
	11KV DP Structur	e with all	equipments	and accessor	ries including	g earthing	
		1.000					1.000
	Total						1.000
			d.		Total Quant	ity in set	1.000
7.002	OD286993/2023-2	2024	(LIX)	9 /411		•/	
	conductor, conduc						XLPE
	conductor, conductinsulated, insulated combination with tape, galvanized st following sizes in latest amendments HT CABLE LAYI	on screene copper tap teel flat strate the existing 3 C x 300	d with extru- be (0.3 kA for ip armoured ag cable trend) Sqm	ded semi con r 1 sec.), cor , and overall	ducting comes laid up, in PVC sheath	pound in ner sheatl ed cable o	n of PVC
	insulated, insulation with a tape, galvanized st following sizes in latest amendments	on screene copper tap eel flat strathe existir 3C x 300 ING -3CX	d with extruous (0.3 kA for ip armoured ag cable trend) Sqm	ded semi con r 1 sec.), cor , and overall	ducting comes laid up, in PVC sheath	pound in ner sheatl ed cable o	h of PVC of the 985 with
	insulated, insulation combination with a tape, galvanized st following sizes in latest amendments HT CABLE LAYI Total	on screene copper tap eel flat str the existir 3 C x 300 ING -3CX 1.000	d with extruous (0.3 kA for ip armoured ag cable trend) Sqm	ded semi con r 1 sec.), cor , and overall ch conformir	ducting comes laid up, in PVC sheath	pound in mer sheatl ed cable c 8 part II 1	on of PVC of the 985 with 30.000
7.003	insulated, insulation combination with a tape, galvanized st following sizes in latest amendments HT CABLE LAYI	on screene copper tap teel flat strate existir s. 3C x 300 ING -3CX 1.000 ING -3CX attions - Sunting kit, inium conditions of the conditions in the conditio	d with extruction (0.3 kA for ip armoured ag cable trend) Sqm 300SQMM 30.000 applying and including lugductor cable	ded semi con r 1 sec.), cor, and overall ch conformir Tota making outd gs and other jof 11 KV gr	aducting comes laid up, in PVC sheathing to IS: 7093 al Quantity loor cable enjointing mate ade as require	in metre d termina erials, for	30.000 30.000 30.000 tion with
7.003	insulated, insulation combination with a tape, galvanized st following sizes in latest amendments HT CABLE LAYI Total OD287020/2023-2 HT Cable Termina heat shrinkable join sizes, XLPE alumination with a strinkable in the stri	on screene copper tap teel flat strate existing. 3C x 300 ING -3CX 1.000 ING -3CX Indian existing strategy and the existence of the existing strategy and the existence of the existence of the existence of the existing strategy and the existence of the existenc	d with extruction (0.3 kA for ip armoured ag cable trend) Sqm 300SQMM 30.000 applying and including lugductor cable	ded semi con r 1 sec.), cor, and overall ch conformir Tota making outd gs and other jof 11 KV gr	aducting comes laid up, in PVC sheathing to IS: 7093 al Quantity loor cable enjointing mate ade as require	in metre d termina erials, for	30.000 30.000 30.000 30.000 tion with following 300 Sqmm
7.003	insulated, insulation combination with of tape, galvanized stape, galvanized stape, galvanized stape, galvanized stape, galvanized stape, galvanized in latest amendments. HT CABLE LAYI Total OD287020/2023-2 HT Cable Termina heat shrinkable joi sizes, XLPE aluminated the stape of the sta	on screene copper tap teel flat strate existing. 3C x 300 ING -3CX 1.000 ING -3CX Indian existing strategy and the existence of the existing strategy and the existence of the existence of the existence of the existing strategy and the existence of the existenc	d with extruction (0.3 kA for ip armoured ag cable trend) Sqm 300SQMM 30.000 applying and including lugductor cable	making outdess and other jof 11 KV gr.	aducting comes laid up, in PVC sheathers to IS: 7093 al Quantity door cable enjointing mate ade as requir QMM	in metre d termina erials, for red. 3C x 3	30.000 30.000 30.000 30.000 tion with following 300 Sqmm 1.000 1.000
	insulated, insulation combination with a tape, galvanized strollowing sizes in latest amendments. HT CABLE LAYI Total OD287020/2023-2 HT Cable Termina heat shrinkable join sizes, XLPE aluming HT CABLE TERM Total OD287019/2023-2 HT Cable Termina heat shrinkable join heat shri	on screene copper tageed flat strate existir and a second	d with extruous (0.3 kA for ip armoured ag cable trend) Sqm 300SQMM 30.000 applying and including lugductor cable N-OUTDOO	making indogs and other	al Quantity loor cable endiointing material quantity Total Quantity For cable endiointing material quantity	in metre d termina erials, for red. 3C x 3	30.000 30.000 30.000 30.000 30.000 1.000 1.000 1.000 00 with following
	insulated, insulation combination with of tape, galvanized stape, galvanized stape, galvanized stape, galvanized stape, galvanized stape, galvanized stape, galvanized in latest amendments. HT CABLE LAYI Total OD287020/2023-2 HT Cable Termina heat shrinkable joi sizes, XLPE alumi HT CABLE TERM Total OD287019/2023-2 HT Cable Termina	on screene copper tageed flat strate existir sizes and sizes and sizes are sizes and sizes are s	d with extruous (0.3 kA for ip armoured ag cable trend) Sqm 300SQMM 30.000 applying and including lugductor cable N-OUTDOC	making indogs and other jof 11 KV gr	aducting comes laid up, in PVC sheather to IS: 7093 al Quantity loor cable enjointing mater ade as require QMM Fotal Quant oor cable endiointing mater ade as require and a second cable endiointing mater ade as require and a second cable endiointing mater ade as require and cable as require and cable a	in metre d termina erials, for red. 3C x 3	30.000 30.000 30.000 30.000 30.000 1.000 1.000 1.000 00 with following

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity		
	Total						1.000		
				r	Fotal Quant	ity in set	1.000		
7.005	OD299549/2023-2	2024							
	HT Unidirectional TOD Meter Supply & Department of active 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 & Department 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 & Department of active kWh, reactive energy kVARh and apparent energy kVARh 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 & Department of active kWh, reactive energy kVARh and apparent energy kVARh 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 & Department of active kWh, reactive energy kVARh and apparent energy kVARh and kVA MD, kW MD at nominal frequency in the range of 47.5 Hz to 52.5 Hz in								
	TOD Meter								
		1.000					1.000		
	Total						1.000		
			-	WA.	Fotal Quant	ity in set	1.000		
	250KVA, 11KV/4 side and with KSE erection, testing ar ANAN Indoor typproof cable termin 11KV draw out typ-5% in steps of 2.5 fittings as per IS 2 and Supply of Indefitted with Manual and motor control Auxiliary Contact counter, Anti pump A, 5P10, 15VA, 1 Microprocessor ba Power pack 230V voltmeter with selection and 1No 3pole 11I TOD meter. Armoninterconnections. To included in the cost 250KVA, 11KV/4	B meterind commine copper sation box pe VCB per solution box pe VCB per solution box pe VCB per solution soluti	ng Panel and ssioning of 2 wound, Resir on LV side so anel and shawinding temp Kerala Electr. 1kV, 630A, perated sprin nunt trip coil NC, Mechaniare, overcurre V, Cl-0.2, 25 the and 1EF I DC emerger ch 3) KSEB ring Include, Class 0.2S Sq mm copp of control cabsformer	metering equito NVA, 11 a cast distributed and HV side and HV side and HV side and HV side are scannical Inspector 26.3kA for 3 g charging mof 24V DC, cal ON/OFF and earth VA PT Instauration of Protection relacy OFF push metering par 3Nos **/5A resin cast PT are control cast both interposition of the source o	uipments - 1) KV/433V 3p ution transfor fitted with 6 ed with off ci- ner and hoote rate standard sec Horizon nechanism wi- closing coil of indicator, mo- fault relay, p ntaneous ID ay, Strip Hea h button, am nel on HT sid , 15VA ,Clas with provis ble shall be u rnal and exte	Design, Shase, Dyrrmer with 30A, 350l reuit tapper complet s 2) Manutal Draw ith 230V A cof 24V Doechanical protection MT relay ater with the ter & ard le HT mess 0.2S resion for fix used for all shall	Supply, in 11, 50Hz. weather MVA, ing +5% to be with all afacturing out VCB AC motor C, operation CT, (/5 with hermostat, inp; etering sin cast CTs ting HT ll external		
	Total						1.000		
				To	tal Quantity	y in each	1.000		
7.007	OD287968/2023-2	2024							

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	MV PANEL FOR commissioning of extensible type MY compartmentalised complete with hing duty rubber gasket multi-function mer connections and in 400A 50kA 4P cum mechanism with 3 CT -1Nos CTs: 25 control fuses and sof measuring and of 1 Nos; Outgoing double break mechanism with a compartment of the substitution of the substitu	cubicle ty V panel be I, and pain ged and eass, remova- ter, ammenter-connecter (O/C and (O/S 15 VA) (witches - display Pot (1)125A (1)125A (1)125A (1)125A (1)125A (1)125A (1)125A	rpe, dust and pard made or made with epo arthed front or able gland platers with CT ections including type MC E/F release at A CL0.5 -4 N 1 set. Digital ower factor at 26kA 4P cur Nos (2)250A nechanism -3 ouble break in the control of the control	vermin product of 14SWG by paints of doors, name pates made of s, EFR and Viling mounting to the country of the	of, floor mount thick CRCA approved con plate, danger 3mm thick solutions of the following the following the following apsulated docarth fault tripuse indicating the following the following type MCCE arent limiting a 26kA 4P cut	nted, front a sheet ful lour and of notice bo heet steel, th selector ing switch uble breal p through g lamps (L 85 class 0 We, reactive B with ence g type MC arrent limi	coperated ly quality, ard, heavy Digital eswitch, all gears. (1) the neutral ED) with Secapable e, apparent apsulated CCB with ting type
	485 including nece MV Panel for 250						
		1.000	isionnei	9411			1.000
	Total		- Confil				1.000
				-	Fotal Quant	ity in set	1.000
7.008	OD287969/2023-2	2024					
	Wiring for circuit/ FRLS PVC insular class PVC conduit earth wire WIRING	ted copper	r conductor,	single core c	able in surfac	ce/ recesse	ed medium
		1.000	100.000				100.000
	Total						100.000
				Tot	al Quantity	in metre	100.000
7.009	OD287970/2023-2	2024					
	Wiring for circuit/ FRLS PVC insulat class PVC conduit	ted copper	r conductor,	single core c	able in surfac	ce/ recesse	ed medium
	WIRING	1.005	A = 00-				
		1.000	25.000				25.000
	Total						25.000
				Tot	al Quantity	in metre	25.000
7.010	Wiring for light po FRLS PVC insular class PVC conduit earthing the point cable etc as require	oint/ fan p ted copper , with mo with 1.5 s	r conductor s dular switch q.mm. FRLS	single core ca , modular pla	able in surfac ate, suitable s	e / recesse size GI bo	ed medium x and

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	WIRING LIGHT	AND FAI	N POINTS	-			
		5.000					5.000
	Total						5.000
					Total Quant	ity in no	5.000
7.011	OD287972/2023-2	2024					
	Supplying and fixi & Samp; switch box 1.24.43 pin 5/6 a	including	connection				
	SUPPLY AND FI	XING MO	DDULAR SY	WITCH /SO	CKET 5/6A		
		5.000					5.000
	Total						5.000
				To	otal Quantity	y in each	5.000
7.012	OD288028/2023-2	2024					
	Supplying and fixi & mp; switch box 1.24.56 pin 15/10	including	connection	switch/ sock s but excludi	xet on the exi ng modular p	sting mod blate etc. a	ular plate s required.
	SUPPLY AND FI	XING MO	DDULAR S	WITCH/SOC	CKET 15/16A	1	
		5.000		1			5.000
	Total						5.000
			e-PLATFOR OF PUBLIC	works T	otal Quantity	y in each	5.000
7.013	OD287974/2023-2	2024					
	Supplying and fixi & switch box 1.24.315/16 amp	including					
	SUPPLY AND FI	XING MO	DDULAR S	WITCH 15/1	6A		
		5.000					5.000
	Total						5.000
				To	otal Quantity	y in each	5.000
7.014	OD287975/2023-2	2024					
	Supplying and fixi & switch box 1.24.15 6 amps s	including					
	SUPPLY AND FI	XING MO	DDULAR S	WITCH/SO	CKET5/6A		
		5.000					5.000
	Total						5.000
				To	otal Quantity	y in each	5.000
7.015	OD287976/2023-2	2024					
	Supplying and fixi accessories in surf case of recessed co	ace/recess	s including c	utting the wa			

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	SUPPLY AND LA	AYING P	VC CONDU	IT	-	-	
		20.000					20.000
	Total						20.000
				Tot	al Quantity	in metre	20.000
7.016	OD287977/2023-2	2024					
	Supply & Damp; lay termination and lescomplete. Providir connections etc. as	ads, for cong and fix sequired	ontinous eart ing 25 mm X	hing along w K 6 mm copp	vith cables ting er strip on su	nned at ter	minals etc.
	SUPPLY AND L			AP COPPER	25X6MM		20.000
		1.000	30.000				30.000
	Total						30.000
				Tot	al Quantity	in metre	30.000
7.017	OD287978/2023-2 PIPE EARTHING						
	3043 with 2.5 m lorequired quantity of with a bed concret in cement mortar 1 of PCC bed with c be 300 x 300 x 300 plate, and covering	of charcoa e of 1:4:8 l:6, plaste ement mo 0 mm) but g at the to	All & amp; salt PCC using fring the surfactoriar 1:4, 12 is t excluding to	including co 40 mm broke ace of brick mm thick, (the est joint, eart	onstruction of the stone (10 cm asonry and the finished in	f inspection thick), the exposiside dime	on chamber brick work ed surface ension shall
	PIPE EARTHING						
		4.000					4.000
	Total						4.000
				'	Total Quant	tity in no	4.000
7.018	OD287979/2023-2						
	Supply, laying and of substation, transconnection of earth	sformers, h pits etc.	HTpanel boa 25x3mm cor	ords,LT pane pper strips.	l boards, equ		
	SUPPLY AND LA	1.000	30.000	P COPPER A			30.000
	Total	1.000	30.000				30.000
	Total			Tot	al Quantity	in motro	30.000
7.019	OD287980/2023-2	2024		101	ai Quaiitity	m mene	30.000
7.019	Supply, laying and of substation, transconnection of earth	l terminat	HTpanel boa	ırds,LT pane			
	SUPPLY AND LA				OSWG		
		1.000	30.000				30.000
	Total						30.000

	Specification	No	Length	Width	Depth	Cf	Quantity
				Tot	al Quantity	in metre	30.000
7.020	OD299570/2023-2	2024					
	Earthing with G.I. and providing mas watering pipe of 2 DSR(E&M)	sonry enclo .7 metre lo	osure with co	over plate ha	ving locking	arrangem	ent and
	PLATE EARTHI	NG				F	
		6.000					6.000
	Total						6.000
				To	tal Quantity	y in each	6.000
7.021	OD287982/2023-2	2024					
	Supply and fixing trenches/ through of primer and two	walls and coat of en	trusses etc. A amel paint a	Angles and p	lates should l	be painted	es in one coat
	CABLE TRAY A		ORTS				
		0.500	(6.10)				0.500
	Total			The state of the s	_		0.500
	OD287984/2023-2			T	otal Quantit	y in MT	0.500
	Supply, laying and aluminium power with the cables, sp colour washing etc	cable, 1.1 acing of c	KV grade of lamps not ex	f the following the following force the following force for the force force for the force force for the force for the force for the force for the force force for the force for the force for the force for the force force for the force for the force for the force for the force force for the force for the force for the force force for the force force force for the force force force for the force forc	ng sizes using	g clamps r	noted along
	Supply & amp; lay armoured alumini						ed
		1.000	60.000				
							60.000
	Total						60.000 60.000
	Total			Tot	al Quantity	in metre	
7.023	Total OD287985/2023-2	2024		Tot	al Quantity	in metre	60.000
7.023		king end t size of PV	/C insulated	vith brass cor and PVC sh	mpression gleathed / XLF	and and al	60.000 60.000
7.023	OD287985/2023-2 Supplying and ma lugs for following	king end t size of PV 1.1 KV g king end t size of PV	C insulated rade as requermination versions version ve	vith brass cor and PVC sh- ired - 3.5C x vith brass cor and PVC sh-	mpression gl eathed / XLF 185 Sqmm mpression gl eathed / XLF	and and al	60.000 60.000 luminium
7.023	OD287985/2023-2 Supplying and malugs for following conductor cable of Supplying and malugs for following	king end t size of PV 1.1 KV g king end t size of PV	C insulated rade as requermination versions version ve	vith brass cor and PVC sh- ired - 3.5C x vith brass cor and PVC sh-	mpression gl eathed / XLF 185 Sqmm mpression gl eathed / XLF	and and al	60.000 60.000 luminium
7.023	OD287985/2023-2 Supplying and malugs for following conductor cable of Supplying and malugs for following	king end t size of PV f 1.1 KV g king end t size of PV f 1.1 KV g	C insulated rade as requermination versions version ve	vith brass cor and PVC sh- ired - 3.5C x vith brass cor and PVC sh-	mpression gl eathed / XLF 185 Sqmm mpression gl eathed / XLF	and and al	60.000 duminium
7.023	OD287985/2023-2 Supplying and ma lugs for following conductor cable of Supplying and ma lugs for following conductor cable of	king end t size of PV f 1.1 KV g king end t size of PV f 1.1 KV g	C insulated rade as requermination versions version ve	vith brass cor and PVC sh- ired - 3.5C x vith brass cor and PVC sh- ired-3.5C x	mpression gl eathed / XLF 185 Sqmm mpression gl eathed / XLF	and and al E alumini and and al E alumini	60.000 luminium lum luminium lum 6.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity				
	sheathed armoured	Supply & Sup									
	Supply & amp; lay armoured aluminit	ing of one am power	e number PV cable of 1.11	C/XLPE inst KV grade 3.5	ulated and PV 5Cx 35Sqmm	VC sheath	ed				
		1.000	30.000	•			30.000				
	Total						30.000				
				Tot	al Quantity	in metre	30.000				
7.025	OD287987/2023-2	2024				L.					
	Supplying and mallugs for following conductor cable of	size of PV	VC insulated	and PVC sh	eathed / XLF						
	Supplying and mallugs for following conductor cable of	size of PV	VC insulated	and PVC sh	eathed / XLF	and and al E alumin	luminium ium				
		4.000	- 68				4.000				
	Total		40,8	X-SI DIV			4.000				
					4.1044		4.000				
				10	otal Quantity	y in each	4.000				
7.026	LT Power Cables conductor, conduc	- Supply & tors scree	ned with ext	g 1.1KV strar ruded semi c	nded compac	et circular ompound 2	aluminium				
7.026	LT Power Cables conductor, conductor, conductinsulated, insulation combination with tape, galvanized statest amendments	- Supply & tors screen copper tageel flat strate existing a size of the existing a size of	ned with extructed with extructed with extructed (0.3 kA for parmoured ag cable trend (0 Sqmm)	g 1.1KV straguded semi coded semi cor r 1 sec.), cor , and overall ch conformin	nded compace onducting conducting compacting compacting compacting in PVC sheathing to IS: 709	et circular ompound 2 opound in oner sheath ed cable o 8 part II 1	aluminium XLPE n of PVC of the 985 with				
7.026	LT Power Cables conductor, conductor, conductor, insulated combination with tape, galvanized st following sizes in	- Supply & tors scree on screene copper tapeed flat stithe existing 3.5C x 5 ing of one	ned with extract with extract with extructed with extructed (0.3 kA for parmoured ag cable trends of Sqmm enumber PV	g 1.1KV strar ruded semi co ded semi cor r 1 sec.), cor , and overall ch conformin	nded compace onducting conducting commes laid up, in PVC sheathing to IS: 709 ulated and PV	et circular ompound 2 opound in oner sheath ed cable of 8 part II 1	aluminium XLPE n of PVC of the 985 with				
7.026	LT Power Cables conductor, conductor, conductor, conductinsulated, insulation combination with tape, galvanized stapellowing sizes in latest amendments Supply & Cable 1.	- Supply & tors scree on screene copper tapeed flat stithe existing 3.5C x 5 ing of one	ned with extracted with extracted with extructed (0.3 kA for ip armoured ag cable trends of Sqmm enumber PV cable of 1.11	g 1.1KV strangeruded semi congressive conforming the conforming C/XLPE instance in the conforming the conformin	nded compace onducting conducting commes laid up, in PVC sheathing to IS: 709 ulated and PV	et circular ompound 2 opound in oner sheath ed cable of 8 part II 1	aluminium XLPE n of PVC of the 985 with				
7.026	LT Power Cables conductor, conductor, conductor, conductinsulated, insulation combination with tape, galvanized stapellowing sizes in latest amendments Supply & Cable 1.	Supply & tors scree on screene copper tap the existing a screen s	ned with extracted with extracted with extructed (0.3 kA for ip armoured ag cable trends of Sqmm enumber PV cable of 1.11	g 1.1KV strangeruded semi congressive conforming the conforming C/XLPE instance in the conforming the conformin	nded compace onducting conducting commes laid up, in PVC sheathing to IS: 709 ulated and PV	et circular ompound 2 opound in oner sheath ed cable of 8 part II 1	aluminium XLPE n of PVC of the 985 with ed				
7.026	LT Power Cables conductor, conductor, conductor, conductinsulated, insulation combination with tape, galvanized st following sizes in latest amendments Supply & Damp; lay armoured aluminity	Supply & tors scree on screene copper tap the existing a screen s	ned with extracted with extracted with extructed (0.3 kA for ip armoured ag cable trends of Sqmm enumber PV cable of 1.11	g 1.1KV strangruded semi conded semi conforming the conforming the conforming the conforming C/XLPE instruction in the conforming the conform	nded compace onducting conducting commes laid up, in PVC sheathing to IS: 709 ulated and PV	et circular ompound in opound in oner sheath ed cable of 8 part II 1 VC sheath	aluminium XLPE n of PVC of the 985 with ed 30.000 30.000				
7.026	LT Power Cables conductor, conductor, conductor, conductinsulated, insulation combination with tape, galvanized st following sizes in latest amendments Supply & Damp; lay armoured aluminity	- Supply & tors scree on screene copper tapeel flat strate existing . 3.5C x 5 ing of one am power 1.000	ned with extracted with extracted with extructed (0.3 kA for ip armoured ag cable trends of Sqmm enumber PV cable of 1.11	g 1.1KV strangruded semi conded semi conforming the conforming the conforming the conforming C/XLPE instruction in the conforming the conform	nded compace onducting conducting compace and up, in PVC sheathing to IS: 709 ulated and PV5Cx 50Sqmm	et circular ompound in opound in oner sheath ed cable of 8 part II 1 VC sheath	aluminium XLPE n of PVC of the 985 with ed 30.000 30.000				
	LT Power Cables conductor, conductor, conductor, conductinsulated, insulation combination with tape, galvanized st following sizes in latest amendments Supply & Damp; lay armoured aluminity	- Supply & tors scree on screene copper tap the existing . 3.5C x 5 ing of one am power 1.000	ned with extracted with extracted with extracted with extracted with extracted and extracted are captured as a cap	g 1.1KV strangruded semi conded semi conforming the	nded compace onducting conducting conducting compession grant procession and procession and procession grant	t circular ompound 2 apound in an and and and and and and and a seminary of the circular and	aluminium XLPE n of PVC of the 985 with ed 30.000 30.000				
	LT Power Cables conductor, conductor, conductinsulated, insulation combination with tape, galvanized st following sizes in latest amendments Supply & Damp; lay armoured alumining Total OD287989/2023-2 Supplying and mailugs for following	- Supply & tors scree on screene copper tap teel flat strathe existing . 3.5C x 5 ing of one am power 1.000	ned with extracted with extructed with extructed with extructed with extructed with extructed armoured are cable trendered so summer and the summer of the s	g 1.1KV strangruded semi conded semi conforming the	nded compace onducting conducting conducting compession gland up, in PVC sheathing to IS: 709 ulated and PV5Cx 50Sqmm al Quantity mpression gleathed / XLF 50 Sqmm mpression gleathed / XLF 50 Sqmm	in metre and and al	aluminium XLPE n of PVC of the 985 with ed 30.000 30.000 luminium ium				
	LT Power Cables conductor, conductinsulated, insulation combination with tape, galvanized st following sizes in latest amendments Supply & Damp; lay armoured aluminium Total OD287989/2023-2 Supplying and mailugs for following conductor cable of Supplying and mailugs for following lugs for following	- Supply & tors scree on screene copper tap teel flat strathe existing . 3.5C x 5 ing of one am power 1.000	ned with extracted with extructed with extructed with extructed with extructed with extructed armoured are cable trendered so summer and the summer of the s	g 1.1KV strangruded semi conded semi conforming the	nded compace onducting conducting conducting compession gland up, in PVC sheathing to IS: 709 ulated and PV5Cx 50Sqmm al Quantity mpression gleathed / XLF 50 Sqmm mpression gleathed / XLF 50 Sqmm	in metre and and al	aluminium XLPE n of PVC of the 985 with ed 30.000 30.000 luminium ium				
	LT Power Cables conductor, conductinsulated, insulation combination with tape, galvanized st following sizes in latest amendments Supply & Damp; lay armoured aluminium Total OD287989/2023-2 Supplying and mailugs for following conductor cable of Supplying and mailugs for following lugs for following	Supply & tors scree on screene copper tap teel flat strains a 3.5C x 5 ing of one am power 1.000 column 2024 king end to size of PV f.1.1 KV g king end to size of PV f.1.1 KV g	ned with extracted with extructed with extructed with extructed with extructed are considered as a second with extraction of the constant of t	g 1.1KV strangruded semi conded semi conforming the	nded compace onducting conducting conducting compession gland up, in PVC sheathing to IS: 709 ulated and PV5Cx 50Sqmm al Quantity mpression gleathed / XLF 50 Sqmm mpression gleathed / XLF 50 Sqmm	in metre and and al	aluminium XLPE n of PVC of the 985 with ed 30.000 30.000 luminium ium				

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Lighting Switch B commissioning of vermin proof, indo mild steel sheet an air insulated and o volts, 50 Hz. AC s be reputed make a earthed and the sw by two coats of pa standards 250A TI flat Neucopper 1No 250 A Metering compartindicating lamps e	medium voor floor ned bus duc f adequate upply sys nd confor vitch board int of app PN bus ba tral: 50 x TPN Isol ments con tc. comple	voltage sheet nounted cubi t of high con e size as men tem. The MC ming IS spec d should be p roved shade, rs of sizes:& 6 mm Al-fla lator as incor apprising of v	steel clad, to cle type swit ductivity alu tioned, for o CCB/SFUs, a sifications an ainted with a by Kerala E lt;br>Pha tt E ner, 63 A TP oltmeter, am	otally enclose chboard fabruminium bus peration on all meters and are assemblenti-rust printlectrical Inspace: 50 x 8 mEarthing concentry of the second of t	ed, dust tig ricated out bars, PVC 3 phase, 4 d relays et bled, inter- ner coating bectorate a am Al- ductor: 25 bs. as outg	ght & amp; t of 14 swg C sleeved, wire, 415 c. should connected, g followed and relevant 5 x 3 mm oings.
	LIGHTING SWIT	1.000	RD				1.000
	Total	1.000		la/l).			1.000
			TK.	To	tal Quantity	y in each	1.000
7.029	OD287993/2023-2	2024	A-16			<i>'</i>	
	Supply, laying and Aluminium power	l clamping cable, 1.	g of 1 no. P <mark>V</mark> I KV grade 4	C insulated a	and PVC she n Aluminiun	athed arm n Cable	noured
	Supply & amp; lay armoured aluminit	ing of one im power	number PV cable of 1.1	<mark>C/X</mark> LPE inst KV grade 4C	ulated and P x 10Sqmm	VC sheath	ed
		1.000	20.000	WORKS			20.000
	Total						20.000
				Tot	al Quantity	in metre	20.000
7.030	OD287994/2023-2 Supplying and malugs for following	king end t					
	conductor cable of						
	Supplying and malugs for following conductor cable of	size of P	VC insulated	and PVC she	eathed / XLF		
		4.000					4.000
	Total						4.000
				,	Total Quant	tity in no	4.000
7.031	OD287995/2023-2 Lighting Distribution MCB distribution incomer with 40A With tinned coppe enclosure as per K	ion board board con 30mA EI r busbars/	nprising to the LCB, 18 nos cables, inter-	ne following. 6 AMPS SP connection, h	40A TPN 4 MCB as out	pole MCI goings, &	B 1 No. as lt;br>
	LDB						
		1.000					1.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						1.000
				1	Total Quant	ity in no	1.000
7.032	OD287996/2023-2	2024				_	
	Supplying and fixi cover plate for mo						
	GI BOX						
		4.000					4.000
	Total						4.000
				To	tal Quantity	y in each	4.000
7.033	OD287997/2023-2	2024					
	Supplying and fixi electronic type reg		0mm sweep	AC ceiling f	an with stand	dard down	rod and
	CEILING FAN						
		4.000	-63				4.000
	Total		AFB	9 4741			4.000
			23/		Total Quant	ity in no	4.000
7.034	OD287998/2023-2	2024	J	3- I C			
	Preparation of Elegiving completion Well	ctrical dra report at	wings, gettin KSEBL and	<mark>ng a</mark> pproval f getting Elect	from the electrical connec	trical Insp tions from	ectorate , KSEB at
	Preparation of Elegiving completion Well	ctrical dra report at	wings, gettin KSEBL and	ng approval f getting Elect	from the electrical connec	trical Insp tions from	ectorate , KSEB at
		1.000					1.000
	Total						1.000
				T	otal Quanti	ty in L.S	1.000