

Abstract Estimate

KIIFB Project: TRAN 10: WRD025-06 - WSS to Ayyappankovil Panchayat - Part II
,Package I - Design and construction of electrical control rooms at raw water pump
house and treatment plant compound, supply, erection and commissioning of
transformers and allied works (1) 500KVA at Thonithady raw water pump
house,(2)400 KVA at WTP compound, supply erection and commissioning of motor
pump sets at RWPH, treatment plant sump pump house, Kalthotty pump house and
Nariyanpara intermediate P H etc.

(Dsr year: 2018)

1 Civil Works.(a) Design and Construction of Electrical Control room, RCC Columns with foot bridge to Thonithady Raw water pumping station(1) Control room and foot bridge. (Cost Index:41.53 %)		
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared	
Net Total Quantity		900.000 sqm
Say 900.000 sqm @ Rs 15.43 / sqm		Rs 13887.00
2	15.7.4 Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge.In cement mortar	
Net Total Quantity		1.201 cum
Say 1.201 cum @ Rs 1805.99 / cum		Rs 2168.99
3	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil	
Net Total Quantity		513.822 cum
Say 513.822 cum @ Rs 309.95 / cum		Rs 159259.13
4	7.1.1 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) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)	
Net Total Quantity		6.968 cum
Say 6.968 cum @ Rs 7520.41 / cum		Rs 52402.22

5	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)		
		Net Total Quantity	9.861 cum
		Say 9.861 cum @ Rs 7690.32 / cum	Rs 75834.25
6	50.6.1.3 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 (1 cement :6 coarse sand) etc complete		
		Net Total Quantity	25.157 cum
		Say 25.157 cum @ Rs 7784.73 / cum	Rs 195840.45
7	10.6.1 Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.80x1.25 mm M.S. laths with 1.25 mm thick top cover		
		Net Total Quantity	17.700 sqm
		Say 17.700 sqm @ Rs 3617.29 / sqm	Rs 64026.03
8	10.5.1 Providing and fixing 1 mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.Using M.S. angels 40x40x6 mm for diagonal braces		
		Net Total Quantity	1.800 sqm
		Say 1.800 sqm @ Rs 5440.63 / sqm	Rs 9793.13
9	50.9.1.3 Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately). using good quality Vengai wood		
		Net Total Quantity	0.256 cum
		Say 0.256 cum @ Rs 80265.15 / cum	Rs 20547.88
10	50.9.2.3 Providing and fixing paneled or paneled and glazed shutters for doors, windows and clerestory windows, 35 mm thick shutters including ISI marked M.S pressed butt hinges bright finished of required size with necessary screws, excluding paneling which will be paid for separately, all complete as per direction of Engineer in -charge.using Vengai wood		

		Net Total Quantity	7.821 sqm
		Say 7.821 sqm @ Rs 2666.62 / sqm	Rs 20855.64
11	5.33.1 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work upto plinth level		
		Net Total Quantity	79.842 cum
		Say 79.842 cum @ Rs 9825.93 / cum	Rs 784521.90
12	5.33.2 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work above plinth level upto floor V level		
		Net Total Quantity	127.677 cum
		Say 127.677 cum @ Rs 11550.40 / cum	Rs 1474720.42
13	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).		
		Net Total Quantity	207.519 cum
		Say 207.519 cum @ Rs 85.70 / cum	Rs 17784.38
14	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)		
		Net Total Quantity	11.135 cum
		Say 11.135 cum @ Rs 11433.93 / cum	Rs 127316.81
15	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more		
		Net Total Quantity	24051.941 kilogram

Say 24051.941 kilogram @ Rs 102.61 / kilogram		Rs 2467969.67
16	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	
Net Total Quantity		197.600 sqm
Say 197.600 sqm @ Rs 350.00 / sqm		Rs 69160.00
17	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform	
Net Total Quantity		348.889 sqm
Say 348.889 sqm @ Rs 851.52 / sqm		Rs 297085.96
18	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers	
Net Total Quantity		668.774 sqm
Say 668.774 sqm @ Rs 678.28 / sqm		Rs 453616.03
19	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts	
Net Total Quantity		430.401 sqm
Say 430.401 sqm @ Rs 901.48 / sqm		Rs 387997.89
20	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)	
Net Total Quantity		1503.771 sqm
Say 1503.771 sqm @ Rs 418.79 / sqm		Rs 629764.26
21	13.8.2 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix:1: 4 (1 cement : 4 fine sand)	
Net Total Quantity		337.251 sqm
Say 337.251 sqm @ Rs 453.75 / sqm		Rs 153027.64
22	13.44.1 Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)	
Net Total Quantity		1629.551 sqm
Say 1629.551 sqm @ Rs 112.09 / sqm		Rs 182656.37

23	13.60.1 Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:Two or more coats on new work		
		Net Total Quantity	323.138 sqm
		Say 323.138 sqm @ Rs 158.02 / sqm	Rs 51062.27
24	13.37.1 White washing with lime to give an even shade:New work (three or more coats)		
		Net Total Quantity	151.229 sqm
		Say 151.229 sqm @ Rs 35.10 / sqm	Rs 5308.14
25	13.50.3 Applying priming coat:With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron /steel works		
		Net Total Quantity	46.200 sqm
		Say 46.200 sqm @ Rs 62.27 / sqm	Rs 2876.87
26	13.48.3 Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture		
		Net Total Quantity	55.276 sqm
		Say 55.276 sqm @ Rs 154.62 / sqm	Rs 8546.78
27	13.71 Lettering with black Japan pint of approved brand and manufacture		
		Net Total Quantity	2500.000 Letterxcm ht
		Say 2500.000 Letterxcm ht @ Rs 5.80 / Letterxcm ht	Rs 14500.00
28	11.21.1.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile		
		Net Total Quantity	3.312 sqm
		Say 3.312 sqm @ Rs 1836.85 / sqm	Rs 6083.65
29	11.21.2.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In dado/ skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile		
		Net Total Quantity	12.960 sqm

Say 12.960 sqm @ Rs 1975.33 / sqm		Rs 25600.28
30	11.37 Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc., complete.	
Net Total Quantity		3.151 sqm
Say 3.151 sqm @ Rs 1138.82 / sqm		Rs 3588.42
31	11.22.1.1 Tile work in skirting, risers of steps and dado upto 2 m height, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry @ 3.3 kg/sqm, including pointing in white cement mixed with pigment of matching shade complete. Marble tiles (polished) Raj Nagar 8 mm thick	
Net Total Quantity		15.121 sqm
Say 15.121 sqm @ Rs 1523.00 / sqm		Rs 23029.28
32	od2083/2019_2020 Providing sanitary facilities and electrical works including water closet ,flushing cistern ,wash basin, steel taps, 250ltr capacity PVC water tank and other required sanitary and electrical fittings as per the direction of departmental officers in charge.	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 42488.69 / No		Rs 42488.69
33	od148982/2018_2019 Providing gantry girder arrangements to existing pump house with allied works etc.complete.	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 80000.00 / No		Rs 80000.00
34	od173455/2020_2021 Providing and fixing MS hook of 22mm dia, bend to shape in RCC slab (ceiling of control room) or beam as per standards including painting the exposed portion	
Net Total Quantity		12.000 No
Say 12.000 No @ Rs 301.61 / No		Rs 3619.32
35	10.16.2 Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished seamless type tubes	
Net Total Quantity		911.028 kg
Say 911.028 kg @ Rs 193.47 / kg		Rs 176256.59
2Civil Works.(a) Construction of Electrical Control room, RCC Columns with foot bridge to Thonithady Raw water pumping station-(3)Construction of waste water drain. (Cost Index:41.53 %)		

1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared	
Net Total Quantity		100.000 sqm
Say 100.000 sqm @ Rs 15.43 / sqm		Rs 1543.00
2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil	
Net Total Quantity		38.250 cum
Say 38.250 cum @ Rs 309.95 / cum		Rs 11855.59
3	7.1.1 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) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)	
Net Total Quantity		19.125 cum
Say 19.125 cum @ Rs 7520.41 / cum		Rs 143827.84
4	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	
Net Total Quantity		11.701 cum
Say 11.701 cum @ Rs 8964.72 / cum		Rs 104896.19
5	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	
Net Total Quantity		99.002 sqm
Say 99.002 sqm @ Rs 748.62 / sqm		Rs 74114.88
6	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more	
Net Total Quantity		7.021 kilogram
Say 7.021 kilogram @ Rs 102.61 / kilogram		Rs 720.42
7	13.7.2 12 mm cement plaster finished with a floating coat of neat cement of mix:1:4 (1 cement : 4 fine sand)	
Net Total Quantity		166.500 sqm

Say 166.500 sqm @ Rs 403.29 / sqm		Rs 67147.79
3Civil works-(b)Construction of Electrical Control room at water treatment plant site Alady and approach road work..(1)Construction of control room . (Cost Index:41.53 %)		
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared	
Net Total Quantity		150.000 sqm
Say 150.000 sqm @ Rs 15.43 / sqm		Rs 2314.50
2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil	
Net Total Quantity		200.965 cum
Say 200.965 cum @ Rs 309.95 / cum		Rs 62289.10
3	2.7.2 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (requiring blasting)	
Net Total Quantity		5.400 cum
Say 5.400 cum @ Rs 749.05 / cum		Rs 4044.87
4	7.1.1 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) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)	
Net Total Quantity		18.407 cum
Say 18.407 cum @ Rs 7520.41 / cum		Rs 138428.19
5	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	
Net Total Quantity		14.724 cum
Say 14.724 cum @ Rs 7690.32 / cum		Rs 113232.27
6	50.6.1.3 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 (1 cement :6 coarse sand) etc complete	

		Net Total Quantity	21.383 cum
		Say 21.383 cum @ Rs 7784.73 / cum	Rs 166460.88
7	10.6.1 Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.80x1.25 mm M.S. laths with 1.25 mm thick top cover		
		Net Total Quantity	9.000 sqm
		Say 9.000 sqm @ Rs 3617.29 / sqm	Rs 32555.61
8	21.1.1.1 Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS : 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing /paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge.(Glazing, paneling and dash fasteners to be paid for separately):For fixed portionAnodised aluminium (anodised transparent or dyed to required shade according to IS : 1868, Minimum anodic coating of grade AC 15)		
		Net Total Quantity	13.389 kg
		Say 13.389 kg @ Rs 520.90 / kg	Rs 6974.33
9	21.3.1 Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer - in -Charge. (Cost of aluminium snap beading shall be paid in basic item):With float glass panes of 4.0 mm thickness		
		Net Total Quantity	7.500 sqm
		Say 7.500 sqm @ Rs 1228.20 / sqm	Rs 9211.50
10	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size		
		Net Total Quantity	10.836 cum
		Say 10.836 cum @ Rs 9483.15 / cum	Rs 102759.41

11	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	
Net Total Quantity		26.087 cum
Say 26.087 cum @ Rs 11433.93 / cum		Rs 298276.93
12	5.22A.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete above plinth level.Thermo - Mechanically Treated bars of grade Fe-500D or more	
Net Total Quantity		4061.530 kg
Say 4061.530 kg @ Rs 102.61 / kg		Rs 416753.59
13	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	
Net Total Quantity		36.000 sqm
Say 36.000 sqm @ Rs 350.00 / sqm		Rs 12600.00
14	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform	
Net Total Quantity		98.987 sqm
Say 98.987 sqm @ Rs 851.52 / sqm		Rs 84289.41
15	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers	
Net Total Quantity		73.182 sqm
Say 73.182 sqm @ Rs 678.28 / sqm		Rs 49637.89
16	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts	
Net Total Quantity		59.040 sqm
Say 59.040 sqm @ Rs 901.48 / sqm		Rs 53223.38
17	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)	
Net Total Quantity		207.662 sqm
Say 207.662 sqm @ Rs 418.79 / sqm		Rs 86966.77

18	13.8.2 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix:1: 4 (1 cement : 4 fine sand)	
Net Total Quantity		319.321 sqm
Say 319.321 sqm @ Rs 453.75 / sqm		Rs 144891.90
19	13.37.1 White washing with lime to give an even shade:New work (three or more coats)	
Net Total Quantity		81.120 sqm
Say 81.120 sqm @ Rs 35.10 / sqm		Rs 2847.31
20	13.44.1 Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)	
Net Total Quantity		430.863 sqm
Say 430.863 sqm @ Rs 112.09 / sqm		Rs 48295.43
21	13.50.3 Applying priming coat:With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron /steel works	
Net Total Quantity		18.000 sqm
Say 18.000 sqm @ Rs 62.27 / sqm		Rs 1120.86
22	13.48.3 Finishing with Deluxe Multi surface paint-system for interiors and exteriors using primer as per manufacturers specifications:Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture	
Net Total Quantity		18.000 sqm
Say 18.000 sqm @ Rs 154.62 / sqm		Rs 2783.16
23	13.71 Lettering with black Japan pint of approved brand and manufacture	
Net Total Quantity		1500.000 Letterxcm ht
Say 1500.000 Letterxcm ht @ Rs 5.80 / Letterxcm ht		Rs 8700.00
24	11.21.1.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile	
Net Total Quantity		54.000 sqm
Say 54.000 sqm @ Rs 1836.85 / sqm		Rs 99189.90

25	11.22.1.1 Tile work in skirting, risers of steps and dado upto 2 m height, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry @ 3.3 kg/sqm, including pointing in white cement mixed with pigment of matching shade complete. Marble tiles (polished) Raj Nagar 8 mm thick	
Net Total Quantity		5.480 sqm
Say 5.480 sqm @ Rs 1523.00 / sqm		Rs 8346.04
26	od173455/2020_2021 Providing and fixing MS hook of 22mm dia, bend to shape in RCC slab (ceiling of control room) or beam as per standards including painting the exposed portion	
Net Total Quantity		12.000 No
Say 12.000 No @ Rs 301.61 / No		Rs 3619.32
27	10.16.2 Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished seamless type tubes	
Net Total Quantity		123.241 kg
Say 123.241 kg @ Rs 193.47 / kg		Rs 23843.44
4 Civil work (b) Construction of Electrical Control room at water treatment plant site Alady and approach road work.(2). Construction of concrete road and retaining wall. (Cost Index:41.53 %)		
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared	
Net Total Quantity		30.000 sqm
Say 30.000 sqm @ Rs 15.43 / sqm		Rs 462.90
2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil	
Net Total Quantity		36.000 cum
Say 36.000 cum @ Rs 309.95 / cum		Rs 11158.20
3	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	
Net Total Quantity		4.801 cum
Say 4.801 cum @ Rs 7690.32 / cum		Rs 36921.23

4	7.1.1 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) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)	
Net Total Quantity		36.800 cum
Say 36.800 cum @ Rs 7520.41 / cum		Rs 276751.09
5	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	
Net Total Quantity		4.201 cum
Say 4.201 cum @ Rs 11433.93 / cum		Rs 48033.94
6	2.2.1 Earth work in rough excavation, banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with 1/2 tonne roller or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up in embankments for roads, flood banks, marginal banks and guide banks or filling up ground depressions, lead up to 50 m and lift up to 1.5 m:All kinds of soil	
Net Total Quantity		500.000 cum
Say 500.000 cum @ Rs 917.54 / cum		Rs 458770.00
7	od165801/2020_2021 Dry rubble masonry with hard stone in foundation and plinth including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:	
Net Total Quantity		500.000 cum
Say 500.000 cum @ Rs 4957.19 / cum		Rs 2478595.00
8	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	
Net Total Quantity		250.000 cum
Say 250.000 cum @ Rs 8964.72 / cum		Rs 2241180.00
9	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	
Net Total Quantity		220.001 sqm
Say 220.001 sqm @ Rs 350.00 / sqm		Rs 77000.35

10	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more	
Net Total Quantity		15420.001 kilogram
Say 15420.001 kilogram @ Rs 102.61 / kilogram		Rs 1582246.30
52- Electromechanical works (Cost Index:41.53 %)		
No Specifications added under this Estimate		
62(a)- Supply, erection, testing and commissioning of 400 KVA Transformer and allied works at Alady plant compound- (1)- 11 KV substation and HT equipments (Cost Index:41.53 %)		
1	od194695/2018_2019 Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150 mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc. as required.	
Net Total Quantity		2.000 Nos
Say 2.000 Nos @ Rs 4957.00 / Nos		Rs 9914.00
2	od194696/2018_2019 Supplying and erection of a set of cross bracing frame work for 11 KV over head line double pole structure having four members fabricated out of 50 mm X 50 mm X 6 mm angle iron to form a rectangle of minimum size 1400 mm width X 2500 mm height, complete with 50 mm X 6mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts and nuts etc. (as per drawing) and painting with primer and finish paint as required.	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 6552.00 / set		Rs 6552.00
3	od194697/2018_2019 Erection of double pole 3 wire cross arm for 11 KV/22 KV/33 KV over head lines as required.	
Net Total Quantity		3.000 Nos
Say 3.000 Nos @ Rs 967.00 / Nos		Rs 2901.00
4	od194698/2018_2019 Supplying and erection of 11 kV pin insulator complete with large steel head G.I. pin, nuts, washers etc. as required.	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 349.00 / set		Rs 349.00
5	od194699/2018_2019 Supplying and erection of three piece nonlinear resistor type lightning arrestor suitable for 3 wire, 11 KV overhead lines with rated voltage 9 kV (rms) with a nominal discharge current rating of 5 kA and complete with galvanised clamping arrangement, G.I. bolts, nuts, washers etc. as required.	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 3601.00 / set		Rs 3601.00

6	od194700/2018_2019 OUTDOOR HT BREAKER PANEL (LBS) Supply, Installation, Testing & Commissioning of 11kV Outdoor HT Breaker Panel with the following components. 11kV Load Break Swich 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.) Supply & Labour	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 215359.00 / set		Rs 215359.00
7	od194701/2018_2019 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.	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 43954.00 / set		Rs 43954.00
8	od194702/2018_2019 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.	
Net Total Quantity		20.000 metre
Say 20.000 metre @ Rs 1298.00 / metre		Rs 25960.00
9	od194703/2018_2019 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	
Net Total Quantity		5.000 cum

Say 5.000 cum @ Rs 3017.00 / cum		Rs 15085.00
10	7.1.1 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) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)	
Net Total Quantity		2.000 cum
Say 2.000 cum @ Rs 7520.41 / cum		Rs 15040.82
11	od194705/2018_2019 400 KVA Transformer- Supply, installation, testing and commissioning of one number 400 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.	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 631587.00 / set		Rs 631587.00
72(a)- Supply, erection, testing and commissioning of 400 KVA Transformer and allied works at Alady plant compound-(2)- LT / MV PANELS & ACCESSORIES (Cost Index:41.53 %)		
1	od201682/2018_2019 PCC PANEL - 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 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 800A FP Microprocessor based MDO ACB (35kA) - 1 Nos. Restricted 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 Outgoings: 630A, 35kA 4P MCCB - 2 Nos. 200A FP SDFU (100kA) - 2 Nos. 63A FP SDFU (100kA) - 1 Nos. Surge Protection Pluggable type surge arrester with potential free contact, thermal disconnecter & 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 & pluggable arresters. Nominal voltage 230V, 50Hz, Nominal Discharge current 30 kA (8/20 sec) for Line to Neutral & 50 kA (8/20 sec) for Neutral to Earth, Maximum Discharge Current I _{max} 50 kA (8/20 sec) -1Set 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 & Labour	

		Net Total Quantity	1.000 set
		Say 1.000 set @ Rs 294498.00 / set	Rs 294498.00
2	<p>od194956/2018_2019</p> <p>WTP - MCC PANEL- 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 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). Incoming : 200A 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 200/5A CL 1.0, 15VA Metering CTs - 1 Set Outgoings: 100A TPN SDFU (100kA) - 3 Nos. 32A TP D curve MCB (10kA) - 6 Nos. 25A TP D curve MCB (10kA) - 3 Nos. 10A 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> <p>Supply & Labour</p>		
		Net Total Quantity	1.000 set
		Say 1.000 set @ Rs 84484.00 / set	Rs 84484.00

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3	<p>od194957/2018_2019</p> <p>APFC PANEL -Automatic Power Factor Correction Panel of total 40 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 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 , free standing panel consisting of the following as per standards. Incomer 100A TPN Isolator - 1 No. 100 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 100/5A 15VA CL 1.0 Metering CTs - 3 Sets Microprocessor based intelligent, 8 step IPFC relay with PF display - 1 No. Out goings 40A, 10kA C Curve TP MCB - 1 Nos 20A, 10kA C Curve TP MCB - 1 Nos 16A, 10kA C Curve TP MCB - 2 Nos 10A, 10kA C Curve TP MCB - 1 Nos 6A, 10kA C Curve TP MCB - 3 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 15 kVAR - 1 Nos 10 kVAR- 3 Nos 7.5 kVAR- 4 Nos 480 V,50 Hz Double di-electric polypropylene (MPP heavy duty) Capacitors of the following ratings including fixed compensation for low load losses. 15 kVAR - 1 Nos 10 kVAR- 1 Nos 5 kVAR- 2 Nos 2 kVAR - 2 Nos 1 kVAR - 1 Nos 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. Supply & Labour 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. Supply & Labour</p>
	<p style="text-align: right;">Net Total Quantity</p> <p style="text-align: right;">1.000 set</p>
	<p style="text-align: right;">Say 1.000 set @ Rs 119898.00 / set</p> <p style="text-align: right;">Rs 119898.00</p>
<p>82(a)- Supply, erection, testing and commissioning of 400 KVA Transformer and allied works at Alady plant compound- (3)- DISTRIBUTION BOARDS, SWITCHGEAR & ACCESSORIES (Cost Index:41.53 %)</p>	
1	<p>od194998/2018_2019</p> <p>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) - 12 Way</p>
	<p style="text-align: right;">Net Total Quantity</p> <p style="text-align: right;">1.000 No</p>
	<p style="text-align: right;">Say 1.000 No @ Rs 11136.00 / No</p> <p style="text-align: right;">Rs 11136.00</p>
2	<p>od194999/2018_2019</p> <p>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</p>

		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 6640.00 / No	Rs 6640.00
3	od195000/2018_2019 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		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 1050.00 / No	Rs 1050.00
4	od195001/2018_2019 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		
		Net Total Quantity	36.000 No
		Say 36.000 No @ Rs 181.00 / No	Rs 6516.00
92(a)- Supply, erection, testing and commissioning of 400 KVA Transformer and allied works at Alady plant compound- (4)- CABLES , WIRES & ACCESSORIES (Cost Index:41.53 %)			
1	od195885/2018_2019 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		
		Net Total Quantity	25.000 metre
		Say 25.000 metre @ Rs 2281.00 / metre	Rs 57025.00
2	od195886/2018_2019 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 150 Sqm		
		Net Total Quantity	25.000 metre
		Say 25.000 metre @ Rs 2318.00 / metre	Rs 57950.00
3	od195980/2018_2019 HT Cable Terminations Supplying and making indoor cable end termination with heat shrinkable jointing kit, including lugs and other jointing materials, for following sizes, XLPE aluminium conductor cable of 11 KV grade as required. 3C x 150 Sqmm		
		Net Total Quantity	1.000 set

Say 1.000 set @ Rs 7664.00 / set		Rs 7664.00
4	od195981/2018_2019 HT Cable Terminations Supplying and making indoor cable end termination with heat shrinkable jointing kit, including lugs and other jointing materials, for following sizes, XLPE aluminium conductor cable of 11 KV grade as required. 3C x 300 Sqmm	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 10002.00 / set		Rs 10002.00
5	od195993/2018_2019 HT Cable Termination- 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	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 12802.00 / set		Rs 12802.00
6	od196006/2018_2019 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	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 14660.00 / set		Rs 14660.00
7	od195889/2018_2019 LT Power Cables - Supply & laying UG AYFY,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	
Net Total Quantity		120.000 metre
Say 120.000 metre @ Rs 1752.00 / metre		Rs 210240.00
8	od195890/2018_2019 LT Power Cables Supply & laying UG AYFY,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 150 Sqmm	
Net Total Quantity		60.000 metre
Say 60.000 metre @ Rs 1241.00 / metre		Rs 74460.00
9	od195891/2018_2019 LT Power Cables Supply & laying UG AYFY,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	
Net Total Quantity		30.000 metre
Say 30.000 metre @ Rs 539.00 / metre		Rs 16170.00
10	od195892/2018_2019 LT Power Cables Supply & laying UG AYFY,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	
Net Total Quantity		30.000 metre

Say 30.000 metre @ Rs 421.00 / metre		Rs 12630.00
11	od195893/2018_2019 LT Power Cables - Supply & laying UG AYFY,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 25 Sqmm	
Net Total Quantity		30.000 metre
Say 30.000 metre @ Rs 350.00 / metre		Rs 10500.00
12	od195894/2018_2019 LT Power Cables - Supply & laying UG AYFY,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	
Net Total Quantity		75.000 metre
Say 75.000 metre @ Rs 216.00 / metre		Rs 16200.00
13	od195895/2018_2019 LT Power Cables - Supply & laying UG AYFY,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	
Net Total Quantity		105.000 metre
Say 105.000 metre @ Rs 179.00 / metre		Rs 18795.00
14	od195896/2018_2019 LT Power Cables - 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	
Net Total Quantity		50.000 metre
Say 50.000 metre @ Rs 305.00 / metre		Rs 15250.00
15	od195897/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete- 3.5C x 185 Sqmm (57mm)	
Net Total Quantity		6.000 No
Say 6.000 No @ Rs 1245.00 / No		Rs 7470.00
16	od195898/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete- 3.5C x 150 Sqmm (50mm)	
Net Total Quantity		8.000 No
Say 8.000 No @ Rs 917.00 / No		Rs 7336.00
17	od195899/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete- 3.5C x 50 Sqmm (35mm)	

		Net Total Quantity	4.000 No
		Say 4.000 No @ Rs 548.00 / No	Rs 2192.00
18	od195900/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete- 3.5C x 35 Sqmm (32mm)		
		Net Total Quantity	4.000 No
		Say 4.000 No @ Rs 437.00 / No	Rs 1748.00
19	od195901/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete- 3.5C x 25 Sqmm (28mm)		
		Net Total Quantity	4.000 No
		Say 4.000 No @ Rs 398.00 / No	Rs 1592.00
20	od195902/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete - 4C x 6 sqmm (22mm)		
		Net Total Quantity	10.000 No
		Say 10.000 No @ Rs 266.00 / No	Rs 2660.00
21	od195903/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete - 4C x 4 sqmm (22mm)		
		Net Total Quantity	14.000 No
		Say 14.000 No @ Rs 225.00 / No	Rs 3150.00
22	od195904/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete - 4C x 2.5 Sqmm		
		Net Total Quantity	2.000 No
		Say 2.000 No @ Rs 211.00 / No	Rs 422.00
23	od195905/2018_2019 LT Power Cables - 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		
		Net Total Quantity	25.000 metre

Say 25.000 metre @ Rs 47.00 / metre		Rs 1175.00
24	od195906/2018_2019 LT Power Cables - 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	
Net Total Quantity		25.000 metre
Say 25.000 metre @ Rs 88.00 / metre		Rs 2200.00
25	od195907/2018_2019 PVC Conduits - 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	
Net Total Quantity		350.000 metre
Say 350.000 metre @ Rs 88.00 / metre		Rs 30800.00
26	od195908/2018_2019 PVC Conduits - 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	
Net Total Quantity		250.000 metre
Say 250.000 metre @ Rs 107.00 / metre		Rs 26750.00
27	od195909/2018_2019 PVC Conduits - 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	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 138.00 / metre		Rs 13800.00
28	od195910/2018_2019 PVC Conduits- Supply & providing Capping / Casing of good quality of the following sizes. 20 mm	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 43.00 / metre		Rs 4300.00
29	od195911/2018_2019 PVC Conduits- Supply & providing Capping / Casing of good quality of the following sizes. 25 mm	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 49.00 / metre		Rs 4900.00
30	od195912/2018_2019 UG Cable Tamper Protection- Supply & laying the following size of B class GI Pipe for UG Cable tamper protection in the existing trench in position etc. complete.50 mm	

		Net Total Quantity	10.000 metre
		Say 10.000 metre @ Rs 379.00 / metre	Rs 3790.00
31	od195913/2018_2019 UG Cable Tamper Protection- Supply & laying the following size of B class GI Pipe for UG Cable tamper protection in the existing trench in position etc. complete. 75 mm		
		Net Total Quantity	10.000 metre
		Say 10.000 metre @ Rs 485.00 / metre	Rs 4850.00
32	od195914/2018_2019 Circuit Mains- Supply and wiring the following size of PVC insulated copper wire manufactured with bright annealed bunched electrolytic copper conductor as per IS 8130/1984 insulated with di-electrical grade PVC compound per as IS 5831/1984 Generally Conforming to IS 694/1990 for working voltage up to and including 1100 V.through the existing PVC conduits / capping casing. 3 run x 4.0 Sqmm - SPN + E - rate as per vetted estimate		
		Net Total Quantity	100.000 metre
		Say 100.000 metre @ Rs 199.00 / metre	Rs 19900.00
33	od195915/2018_2019 Circuit Mains- Supply and wiring the following size of PVC insulated copper wire manufactured with bright annealed bunched electrolytic copper conductor as per IS 8130/1984 insulated with di-electrical grade PVC compound per as IS 5831/1984 Generally Conforming to IS 694/1990 for working voltage up to and including 1100 V.through the existing PVC conduits / capping casing. 3 run x 2.5 Sqmm - SPN + E - rate as per vetted estimate.		
		Net Total Quantity	200.000 metre
		Say 200.000 metre @ Rs 154.00 / metre	Rs 30800.00
34	od195916/2018_2019 Circuit Mains- Supply and wiring the following size of PVC insulated copper wire manufactured with bright annealed bunched electrolytic copper conductor as per IS 8130/1984 insulated with di-electrical grade PVC compound per as IS 5831/1984 Generally Conforming to IS 694/1990 for working voltage up to and including 1100 V.through the existing PVC conduits / capping casing. 3 run x 1.5 sqmm - SPN + E		
		Net Total Quantity	350.000 metre
		Say 350.000 metre @ Rs 118.00 / metre	Rs 41300.00
35	od195917/2018_2019 Cable Supports & Trenching- Supply and erection of Cable trays and cable supports fabricated out of MS angles 25x25x6mm (ISA) and 25x6mmMS flats with and 20cm spacing between successive cross members and supported using 25cm long 32x6mm MS flat at every 1m spacing. The cable trays and supports shall be painted with two coats of Zinc Chromate primer and two coats of enamel paint.		
		Net Total Quantity	500.000 kg
		Say 500.000 kg @ Rs 142.00 / kg	Rs 71000.00

36	od195918/2018_2019 Cable Supports & Trenching- Supply and providing 6mm MS chequered plate of suitable thickness including cutting, welding, painting etc. as required for the cable trench covering.	
Net Total Quantity		100.000 kg
Say 100.000 kg @ Rs 121.00 / kg		Rs 12100.00
37	od195919/2018_2019 Cable Supports & Trenching - Charges for making cable trenches in all type of soil including providing country burnt bricks breadth wise above the cable, providing sand cushioning of 150mm refilling & restoring normal surface etc.complete as per standards of the following size. 35 cm Wide x 100 cm Deep (HT Cables)	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 640.00 / metre		Rs 64000.00
38	od195920/2018_2019 Cable Supports & Trenching - Charges for making cable trenches in all type of soil including providing country burnt bricks breadth wise above the cable, providing sand cushioning of 150mm refilling & restoring normal surface etc.complete as per standards of the following size. 35 cm Wide x 75 cm Deep (LT Cables)	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 594.00 / metre		Rs 59400.00
39	od195921/2018_2019 Cable Supports & Trenching - 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.	
Net Total Quantity		50.000 No
Say 50.000 No @ Rs 516.00 / No		Rs 25800.00
40	od195922/2018_2019 Cable Supports & Trenching - 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.	
Net Total Quantity		25.000 No
Say 25.000 No @ Rs 417.00 / No		Rs 10425.00
102(a)- Supply, erection, testing and commissioning of 400 KVA Transformer and allied works at Alady plant compound- (5)- EARTHING & ACCESSORIES (Cost Index:41.53 %)		
1	od196108/2018_2019 Supply and providing plate earthing as per IS 3043 with 1200x1200x12 mm GI/CI earth plate, 50 mm GI watering pipe fixed to the earth plate with 25 x 3mm GI clamps, GI funnel with weld mesh, filling required quantity of charcoal including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40 mm broken stone (10 cm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4, 12 mm thick, (the finished inside dimension shall be 450 x 450 x 450 mm) but excluding test joint, earth continuity conductor to the plate, and covering at the top.	

		Net Total Quantity	8.000 set
		Say 8.000 set @ Rs 11091.00 / set	Rs 88728.00
2	od196109/2018_2019 Supply and providing pipe earthing as per IS 3043 with 2.5 m long 40 mm dia B class GI pipe, GI funnel with weld mesh, filling required quantity of charcoal & salt including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40 mm broken stone (10 cm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4, 12 mm thick, (the finished inside dimension shall be 300 x 300 x 300 mm) but excluding test joint, earth continuity conductor to the plate, and covering at the top.		
		Net Total Quantity	5.000 set
		Say 5.000 set @ Rs 2952.00 / set	Rs 14760.00
3	od196110/2018_2019 Supply & laying the following sizes of Earth Strip for earthing interconnection, termination and leads, for continuous earthing along with cables tinned at terminals etc. complete. 25 x 6 mm Copper Strip		
		Net Total Quantity	300.000 metre
		Say 300.000 metre @ Rs 1507.00 / metre	Rs 452100.00
4	od196111/2018_2019 Supply & laying the following sizes of Earth Strip for earthing interconnection, termination and leads, for continuous earthing along with cables tinned at terminals etc. complete. 25 x 3 mm Copper strip		
		Net Total Quantity	500.000 metre
		Say 500.000 metre @ Rs 797.00 / metre	Rs 398500.00
5	od196112/2018_2019 Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving earth connection as required. No. 16 SWG Copper Conductor		
		Net Total Quantity	300.000 metre
		Say 300.000 metre @ Rs 199.00 / metre	Rs 59700.00
6	od196113/2018_2019 Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving earth connection as required. No. 10 SWG Copper Conductor		
		Net Total Quantity	600.000 metre
		Say 600.000 metre @ Rs 113.00 / metre	Rs 67800.00
112(a)- Supply, erection, testing and commissioning of 400 KVA Transformer and allied works at Alady plant compound-(6) SUBSTATION EQUIPMENTS & MISC (Cost Index:41.53 %)			
1	od196123/2018_2019 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.		
		Net Total Quantity	5.000 sqm
		Say 5.000 sqm @ Rs 773.00 / sqm	Rs 3865.00

2	od196124/2018_2019 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.	
Net Total Quantity		2.000 sqm
Say 2.000 sqm @ Rs 1379.00 / sqm		Rs 2758.00
3	od196125/2018_2019 Supply and providing 5 Kg. Dry Chemical Powder type Fire Extinguisher with hose and clamps including fixing it to wall as required.	
Net Total Quantity		2.000 set
Say 2.000 set @ Rs 2383.00 / set		Rs 4766.00
4	od196126/2018_2019 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.	
Net Total Quantity		4.000 set
Say 4.000 set @ Rs 638.00 / set		Rs 2552.00
5	od196127/2018_2019 Supply and providing First Aid Chart duly framed and placed in a conspicuous location for clear vision.	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 247.00 / set		Rs 247.00
6	od196128/2018_2019 Supply and providing Laminated Electrical Schematic diagram framed and placed in a conspicuous location for clear vision.	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 226.00 / set		Rs 226.00
7	od196129/2018_2019 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	
Net Total Quantity		10.000 Nos
Say 10.000 Nos @ Rs 267.00 / Nos		Rs 2670.00
8	od202018/2018_2019 SCHEME APPROVAL & POWER ALLOCATION - 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).	

		Net Total Quantity	1.000 L.S
		Say 1.000 L.S @ Rs 20000.00 / L.S	Rs 20000.00
9	od202020/2018_2019 SCHEME APPROVAL & POWER ALLOCATION - Preparation and submission of latest scheme drawings to KSEB for obtaining sanction for power allocation (Including all incidental and statutory expenses) .Preparation, submission and execution of HT agreement(6 sets) as per the renewed Contract demand according to the latest additions.		
		Net Total Quantity	1.000 L.S
		Say 1.000 L.S @ Rs 15000.00 / L.S	Rs 15000.00
122(b)- Supply, erection, testing and commissioning of 500 KVA Transformer and allied works at Thonithady raw water pump house compound- (1)- 11 KV substation and HT equipments (Cost Index:41.53 %)			
1	od194695/2018_2019 Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150 mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc. as required.		
		Net Total Quantity	2.000 Nos
		Say 2.000 Nos @ Rs 4957.00 / Nos	Rs 9914.00
2	od194696/2018_2019 Supplying and erection of a set of cross bracing frame work for 11 KV over head line double pole structure having four members fabricated out of 50 mm X 50 mm X 6 mm angle iron to form a rectangle of minimum size 1400 mm width X 2500 mm height, complete with 50 mm X 6mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts and nuts etc. (as per drawing) and painting with primer and finish paint as required.		
		Net Total Quantity	1.000 set
		Say 1.000 set @ Rs 6552.00 / set	Rs 6552.00
3	od194697/2018_2019 Erection of double pole 3 wire cross arm for 11 KV/22 KV/33 KV over head lines as required.		
		Net Total Quantity	3.000 Nos
		Say 3.000 Nos @ Rs 967.00 / Nos	Rs 2901.00
4	od194698/2018_2019 Supplying and erection of 11 kV pin insulator complete with large steel head G.I. pin, nuts, washers etc. as required.		
		Net Total Quantity	1.000 set
		Say 1.000 set @ Rs 349.00 / set	Rs 349.00
5	od194699/2018_2019 Supplying and erection of three piece nonlinear resistor type lightning arrestor suitable for 3 wire, 11 kV overhead lines with rated voltage 9 kV (rms) with a nominal discharge current rating of 5 kA and complete with galvanised clamping arrangement, G.I. bolts, nuts, washers etc. as required.		
		Net Total Quantity	1.000 set

Say 1.000 set @ Rs 3601.00 / set		Rs 3601.00
6	<p>od201137/2018_2019</p> <p>OUTDOOR HT BREAKER PANEL (LBS) - Supply, Installation, Testing & Commissioning of 11kV Outdoor HT Breaker Panel with the following components. 11kV Load Break Swich 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.) - Supply & Labour</p>	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 215359.00 / set		Rs 215359.00
7	<p>od201138/2018_2019</p> <p>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>	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 43954.00 / set		Rs 43954.00
8	<p>od201139/2018_2019</p> <p>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.</p>	
Net Total Quantity		20.000 metre
Say 20.000 metre @ Rs 1298.00 / metre		Rs 25960.00
9	<p>od201140/2018_2019</p> <p>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</p>	

		Net Total Quantity	5.000 cum
		Say 5.000 cum @ Rs 3017.00 / cum	Rs 15085.00
10	od201141/2018_2019 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).		
		Net Total Quantity	2.000 cum
		Say 2.000 cum @ Rs 6143.00 / cum	Rs 12286.00
11	od201142/2018_2019 500 KVA Transformer - Supply, installation, testing and commissioning of one number 500 kVA, DYn11, 3Ph, 50Hz, 11/3.3 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.		
		Net Total Quantity	1.000 set
		Say 1.000 set @ Rs 918604.00 / set	Rs 918604.00
12	od210621/2020_2021 Supply/erection/testing commissioning of one number 50/ 63 KVA(or suitable near size) 3.3KV/433V ,distribution transformer Indoor (or out door),with HT/LT cable entry ,with suitable HT and LT cables from 3.3 KV pannel to transformer and LT cable to LT panel,cable termination,foundation/structure/enclosure for transformer including ,erection ,testing and commissioning of LT pannel with 100A incomer MCCB, 3 NOS 63 A outgoing MCCB with isolation,erathing , with meters and indicating lamps etc complete including approval from Inspectrate.-complete-as per CEA and Inspectrate statutes		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 350000.00 / No	Rs 350000.00
13	od201143/2018_2019 Neutral Grounding Resistor - Supply & Providing 50A,3.3kV 40ohm 30sec NGR - Supply		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 155766.00 / No	Rs 155766.00
14	od201144/2018_2019 Neutral Grounding Resistor - Supply & Providing 50A,3.3kV 40ohm 30sec NGR - Labour		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 656.00 / No	Rs 656.00
15	od201145/2018_2019 NEUTRAL CT - Supply & Providing 5P10 Protection Class 20/5A, 15VA Neutral CT in a suitable enclosure including giving connections to Transformer Neutral etc.complete - Supply		

Net Total Quantity		1.000 No
Say 1.000 No @ Rs 4327.00 / No		Rs 4327.00
16	od201146/2018_2019 NEUTRAL CT - Supply & Providing 5P10 Protection Class 20/5A, 15VA Neutral CT in a suitable enclosure including giving connections to Transformer Neutral etc.complete - Labour	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 625.00 / No		Rs 625.00
132(b)- Supply, erection, testing and commissioning of 500 KVA Transformer and allied works at Thonithady raw water pump house compound-(2)- LT / MV PANELS & ACCESSORIES (Cost Index:41.53 %)		
1	od201161/2018_2019 PCC PANEL -Design ,approval, Supply, fabrication, erection, testing and commissioning of 3.3kv cubicle type fully compartmentalized, dust tight, vermin proof, water proof 3.3 kv , VCB panel set 200Amp or suitable rating - Main 3.3.KV 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 - 200A FP Microprocessor based VCB - suitable MVA based on fault level-- 1 Nos. Restricted Earth Fault Relay - 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 -one VCB incomer 200 A or suitable size- 3 Sets Outgoings: 200A, VCB - 1 Nos. 100/50A VCB out going- .with isolation facility - Surge Protection Pluggable type surge arrester with potential free contact, thermal disconnecter & 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 & pluggable arresters. Nominal voltage 3.3KV, 50Hz, Nominal Discharge current 30 kA (8/20 sec) for Line to Neutral & 50 kA (8/20 sec) for Neutral to Earth, Maximum Discharge Current I _{max} 50 kA (8/20 sec) -1Set 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. Supply & Labour ,suitable battery and charger for the pannel,-complete as per CEA and kerala State Electrical Inspectrate relevant statutes.,approval from inspectrate ,2.5 sq mm copper cable shall be used for all control circuits-	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 1806133.00 / set		Rs 1806133.00
142(b)- Supply, erection, testing and commissioning of 500 KVA Transformer and allied works at Thonithady raw water pump house compound- (3)- DISTRIBUTION BOARDS, SWITCHGEAR & ACCESSORIES (Cost Index:41.53 %)		

1	od194998/2018_2019 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 incommmer 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) - 12 Way	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 11136.00 / No		Rs 11136.00
2	od201177/2018_2019 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	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 6640.00 / No		Rs 6640.00
3	od195000/2018_2019 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	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 1050.00 / No		Rs 1050.00
4	od201178/2018_2019 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	
Net Total Quantity		36.000 No
Say 36.000 No @ Rs 181.00 / No		Rs 6516.00
152(b)- Supply, erection, testing and commissioning of 500 KVA Transformer and allied works at Thonithady raw water pump house compound- (4)- CABLES , WIRES & ACCESSORIES (Cost Index:41.53 %)		
1	od201350/2018_2019 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 150 Sqm	
Net Total Quantity		60.000 metre
Say 60.000 metre @ Rs 2318.00 / metre		Rs 139080.00

2	od201351/2018_2019 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 50 Sqm	
Net Total Quantity		65.000 metre
Say 65.000 metre @ Rs 1072.00 / metre		Rs 69680.00
3	od201352/2018_2019 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. 1C x 50 Sqmm	
Net Total Quantity		20.000 metre
Say 20.000 metre @ Rs 628.00 / metre		Rs 12560.00
4	od201353/2018_2019 HT Cable Terminations - Supplying and making indoor cable end termination with heat shrinkable jointing kit, including lugs and other jointing materials, for following sizes, XLPE aluminium conductor cable of 11 KV grade as required. 3C x 150 Sqmm	
Net Total Quantity		4.000 set
Say 4.000 set @ Rs 10002.00 / set		Rs 40008.00
5	od201354/2018_2019 HT Cable Terminations - Supplying and making indoor cable end termination with heat shrinkable jointing kit, including lugs and other jointing materials, for following sizes, XLPE aluminium conductor cable of 11 KV grade as required. 3C x 50 Sqmm	
Net Total Quantity		8.000 set
Say 8.000 set @ Rs 7664.00 / set		Rs 61312.00
6	od201355/2018_2019 HT Cable Terminations - Supplying and making indoor cable end termination with heat shrinkable jointing kit, including lugs and other jointing materials, for following sizes, XLPE aluminium conductor cable of 11 KV grade as required. 1C x 50 Sqmm	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 7664.00 / set		Rs 7664.00
7	od201356/2018_2019 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	

		Net Total Quantity	2.000 set
		Say 2.000 set @ Rs 12367.00 / set	Rs 24734.00
8	od201357/2018_2019 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. 1C x 50 Sqmm		
		Net Total Quantity	1.000 set
		Say 1.000 set @ Rs 14660.00 / set	Rs 14660.00
9	od201358/2018_2019 LT Power Cables - 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		
		Net Total Quantity	50.000 metre
		Say 50.000 metre @ Rs 308.00 / metre	Rs 15400.00
10	od201359/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete. 3.5C x 400 Sqmm (82mm)		
		Net Total Quantity	6.000 No
		Say 6.000 No @ Rs 2152.00 / No	Rs 12912.00
11	od201360/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete. 3.5C x 300 Sqmm (70mm)		
		Net Total Quantity	8.000 No
		Say 8.000 No @ Rs 1713.00 / No	Rs 13704.00
12	od201361/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete. 3.5C x 35 Sqmm (32mm)		
		Net Total Quantity	2.000 No
		Say 2.000 No @ Rs 437.00 / No	Rs 874.00
13	od201362/2018_2019 LT Power Cables - Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete. 4C x 2.5 Sqmm		
		Net Total Quantity	2.000 No
		Say 2.000 No @ Rs 217.00 / No	Rs 434.00

14	od201363/2018_2019 LT Power Cables - 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	
Net Total Quantity		25.000 metre
Say 25.000 metre @ Rs 47.00 / metre		Rs 1175.00
15	od201364/2018_2019 LT Power Cables - 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	
Net Total Quantity		25.000 metre
Say 25.000 metre @ Rs 88.00 / metre		Rs 2200.00
16	od201365/2018_2019 PVC Conduits - 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	
Net Total Quantity		350.000 metre
Say 350.000 metre @ Rs 88.00 / metre		Rs 30800.00
17	od201366/2018_2019 PVC Conduits - 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	
Net Total Quantity		250.000 metre
Say 250.000 metre @ Rs 107.00 / metre		Rs 26750.00
18	od201367/2018_2019 PVC Conduits - 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	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 138.00 / metre		Rs 13800.00
19	od201368/2018_2019 PVC Conduits - Supply & providing Capping / Casing of good quality of the following sizes. 20 mm	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 43.00 / metre		Rs 4300.00

20	od201369/2018_2019 PVC Conduits - Supply & providing Capping / Casing of good quality of the following sizes. 25 mm	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 49.00 / metre		Rs 4900.00
21	od201370/2018_2019 UG Cable Tamper Protection - Supply & laying the following size of B class GI Pipe for UG Cable tamper protection in the existing trench in position etc. complete. 50 mm	
Net Total Quantity		10.000 metre
Say 10.000 metre @ Rs 379.00 / metre		Rs 3790.00
22	od201371/2018_2019 UG Cable Tamper Protection - Supply & laying the following size of B class GI Pipe for UG Cable tamper protection in the existing trench in position etc. complete. 75 mm	
Net Total Quantity		10.000 metre
Say 10.000 metre @ Rs 485.00 / metre		Rs 4850.00
23	od201372/2018_2019 Circuit Mains - Supply and wiring the following size of PVC insulated copper wire manufactured with bright annealed bunched electrolytic copper conductor as per IS 8130/1984 insulated with di-electrical grade PVC compound per as IS 5831/1984 Generally Conforming to IS 694/1990 for working voltage up to and including 1100 V.through the existing PVC conduits / capping casing. 3 run x 4.0 Sqmm - SPN + E	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 199.00 / metre		Rs 19900.00
24	od201373/2018_2019 Circuit Mains - Supply and wiring the following size of PVC insulated copper wire manufactured with bright annealed bunched electrolytic copper conductor as per IS 8130/1984 insulated with di-electrical grade PVC compound per as IS 5831/1984 Generally Conforming to IS 694/1990 for working voltage up to and including 1100 V.through the existing PVC conduits / capping casing. 3 run x 2.5 Sqmm - SPN + E	
Net Total Quantity		200.000 metre
Say 200.000 metre @ Rs 154.00 / metre		Rs 30800.00
25	od201374/2018_2019 Circuit Mains- Supply and wiring the following size of PVC insulated copper wire manufactured with bright annealed bunched electrolytic copper conductor as per IS 8130/1984 insulated with di-electrical grade PVC compound per as IS 5831/1984 Generally Conforming to IS 694/1990 for working voltage up to and including 1100 V.through the existing PVC conduits / capping casing. 3 run x 1.5 sqmm - SPN + E	
Net Total Quantity		350.000 metre
Say 350.000 metre @ Rs 118.00 / metre		Rs 41300.00

26	od201375/2018_2019 Cable Supports & Trenching- Supply and erection of Cable trays and cable supports fabricated out of MS angles 25x25x6mm (ISA) and 25x6mmMS flats with and 20cm spacing between successive cross members and supported using 25cm long 32x6mm MS flat at every 1m spacing. The cable trays and supports shall be painted with two coats of Zinc Chromate primer and two coats of enamel paint.	
Net Total Quantity		500.000 kg
Say 500.000 kg @ Rs 149.00 / kg		Rs 74500.00
27	od201376/2018_2019 Cable Supports & Trenching- Supply and providing 6mm MS chequered plate of suitable thickness including cutting, welding, painting etc. as required for the cable trench covering.	
Net Total Quantity		100.000 kg
Say 100.000 kg @ Rs 121.00 / kg		Rs 12100.00
28	od201377/2018_2019 Charges for making cable trenches in all type of soil including providing country burnt bricks breadth wise above the cable, providing sand cushioning of 150mm refilling & restoring normal surface etc.complete as per standards of the following size. 35 cm Wide x 100 cm Deep (HT Cables)	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 651.00 / metre		Rs 65100.00
29	od201378/2018_2019 Charges for making cable trenches in all type of soil including providing country burnt bricks breadth wise above the cable, providing sand cushioning of 150mm refilling & restoring normal surface etc.complete as per standards of the following size. 35 cm Wide x 75 cm Deep (LT Cables)	
Net Total Quantity		100.000 metre
Say 100.000 metre @ Rs 604.00 / metre		Rs 60400.00
30	od195921/2018_2019 Cable Supports & Trenching - 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.	
Net Total Quantity		50.000 No
Say 50.000 No @ Rs 516.00 / No		Rs 25800.00
31	od195922/2018_2019 Cable Supports & Trenching - 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.	
Net Total Quantity		25.000 No
Say 25.000 No @ Rs 417.00 / No		Rs 10425.00
162(b)- Supply, erection, testing and commissioning of 500 KVA Transformer and allied works at Thonithady plant compound- (5)- EARTHING & ACCESSORIES (Cost Index:41.53 %)		

1	od201561/2018_2019 Supply and providing plate earthing as per IS 3043 with 1200x1200x12 mm GI/CI earth plate, 50 mm GI watering pipe fixed to the earth plate with 25 x 3mm GI clamps, GI funnel with weld mesh, filling required quantity of charcoal including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40 mm broken stone (10 cm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4, 12 mm thick, (the finished inside dimension shall be 450 x 450 x 450 mm) but excluding test joint, earth continuity conductor to the plate, and covering at the top.	
Net Total Quantity		8.000 set
Say 8.000 set @ Rs 11091.00 / set		Rs 88728.00
2	od201562/2018_2019 Supply and providing pipe earthing as per IS 3043 with 2.5 m long 40 mm dia B class GI pipe, GI funnel with weld mesh, filling required quantity of charcoal & salt including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40 mm broken stone (10 cm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4, 12 mm thick, (the finished inside dimension shall be 300 x 300 x 300 mm) but excluding test joint, earth continuity conductor to the plate, and covering at the top.	
Net Total Quantity		5.000 set
Say 5.000 set @ Rs 2952.00 / set		Rs 14760.00
3	od201563/2018_2019 Supply & laying the following sizes of Earth Strip for earthing interconnection, termination and leads, for continuous earthing along with cables tinned at terminals etc. complete. 25 x 6 mm Copper Strip	
Net Total Quantity		300.000 metre
Say 300.000 metre @ Rs 1600.00 / metre		Rs 480000.00
4	od201564/2018_2019 Supply & laying the following sizes of Earth Strip for earthing interconnection, termination and leads, for continuous earthing along with cables tinned at terminals etc. complete. 25 x 3 mm Copper strip	
Net Total Quantity		500.000 metre
Say 500.000 metre @ Rs 797.00 / metre		Rs 398500.00
5	od201565/2018_2019 Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving earth connection as required. No.16 SWG Copper Conductor	
Net Total Quantity		300.000 metre
Say 300.000 metre @ Rs 199.00 / metre		Rs 59700.00
6	od201566/2018_2019 Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving earth connection as required. No.10 SWG Copper Conductor	
Net Total Quantity		600.000 metre
Say 600.000 metre @ Rs 113.00 / metre		Rs 67800.00

172(b)- Supply, erection, testing and commissioning of 500 KVA Transformer and allied works at Thonithady raw water pump house compound-(6) SUBSTATION EQUIPMENTS & MISC (Cost Index:41.53 %)		
1	od201637/2018_2019 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.	
Net Total Quantity		5.000 sqm
Say 5.000 sqm @ Rs 773.00 / sqm		Rs 3865.00
2	od201638/2018_2019 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.	
Net Total Quantity		2.000 sqm
Say 2.000 sqm @ Rs 1379.00 / sqm		Rs 2758.00
3	od201639/2018_2019 Supply and providing 5 Kg. Dry Chemical Powder type Fire Extinguisher with hose and clamps including fixing it to wall as required.	
Net Total Quantity		2.000 set
Say 2.000 set @ Rs 2383.00 / set		Rs 4766.00
4	od201640/2018_2019 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.	
Net Total Quantity		4.000 set
Say 4.000 set @ Rs 638.00 / set		Rs 2552.00
5	od201641/2018_2019 Supply and providing First Aid Chart duly framed and placed in a conspicuous location for clear vision.	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 247.00 / set		Rs 247.00
6	od201642/2018_2019 Supply and providing Laminated Electrical Schematic diagram framed and placed in a conspicuous location for clear vision.	
Net Total Quantity		1.000 set
Say 1.000 set @ Rs 226.00 / set		Rs 226.00
7	od201643/2018_2019 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	
Net Total Quantity		10.000 No

Say 10.000 No @ Rs 267.00 / No		Rs 2670.00
182(b)- Supply, erection, testing and commissioning of 500 KVA Transformer and allied works at Thonithady raw water pump house compound-(7) - SCHEME APPROVAL & POWER ALLOCATION (Cost Index:41.53 %)		
1	od202018/2018_2019 SCHEME APPROVAL & POWER ALLOCATION - 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).	
Net Total Quantity		1.000 L.S
Say 1.000 L.S @ Rs 20000.00 / L.S		Rs 20000.00
2	od202020/2018_2019 SCHEME APPROVAL & POWER ALLOCATION - Preparation and submission of latest scheme drawings to KSEB for obtaining sanction for power allocation (Including all incidental and statutory expenses) .Preparation, submission and execution of HT agreement(6 sets) as per the renewed Contract demand according to the latest additions.	
Net Total Quantity		1.000 L.S
Say 1.000 L.S @ Rs 15000.00 / L.S		Rs 15000.00
19Supply, erection, testing and commissioning of motor pump set (Cost Index:41.53 %)		
No Specifications added under this Estimate		
20(4) Supply, Erection, Testing and Commissioning of 2 Nos new Vertical Turbine motor Pumpset (working voltage 3300V) having discharge of 80 lps against a total head of 180 M. suction head 20.30m at Thonithady raw water pump house (Cost Index:41.53 %)		
1	od197162/2018_2019 Supply, Erection, Testing and Commissioning of 2 Nos new Vertical Turbine motor Pumpset (working voltage 3300V) having discharge of 80 lps against a total head of 180 M. suction head 20.30 m at WTP sump.(From raw water pumping station to Alady plant) including cost of soft starter	
Net Total Quantity		2.000 No
Say 2.000 No @ Rs 3888802.96 / No		Rs 7777605.92
2	od197164/2018_2019 Supply of additional cable beyond the initial supply of 10Mtr. Additional requirement from panel board to starter and from starter to motor	
Net Total Quantity		25.000 metre
Say 25.000 metre @ Rs 1518.00 / metre		Rs 37950.00

3	od197165/2018_2019 Supply of suitable size PVC insulated, sheathed, armoured copper conductor cable conforming to relevant IS code, for giving power connections to main switchboard to pannel board etc. complete as per standards including end termination materials as per IE rules. The supply shall be limited to the actual requirement.	
Net Total Quantity		20.000 metre
Say 20.000 metre @ Rs 1518.00 / metre		Rs 30360.00
4	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil	
Net Total Quantity		15.000 cum
Say 15.000 cum @ Rs 309.95 / cum		Rs 4649.25
5	od197167/2018_2019 Providing 350mm surge arrestor- Providing 350mm surge arrestor having test pressure 45Kg/cm2 to the clear water pumping main including cost of specials such as 2 Nos. Tail piece, 2 Nos. Mechanical joints, cutting the existing DI pipe, inserting surge arrestor, jointing with flanged joints etc. including cost of surge arrestor.(Rate as per DSR Observed data)	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 600000.00 / No		Rs 600000.00
6	od197168/2018_2019 Providing 350mm surge arrestor- Cement concrete 1:2:4 using 20mm nominay size metal for anchore block including charges of form work and labour charges etc. complete.(Rate as per DSR Observed data)	
Net Total Quantity		5.000 cum
Say 5.000 cum @ Rs 8941.83 / cum		Rs 44709.15
7	od197169/2018_2019 Providing 350mm surge arrestor- Providing air cushion valve of diameter - 200mm & test pressure 45 Kg/cm2 with flanged ends including all cost of materials such as 200mm air cushion valve - 1 No., 200mm D/F CI sluice valve - 1 No. etc and all labour charges for fitting the same in position as directed by the departmental officers.(Rate as per DSR Observed data)	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 409500.00 / No		Rs 409500.00
8	od197170/2018_2019 Providing 350mm surge arrestor- Constructing RCC valve chamber of size 2.50m x 1.20m x 1.20m for providing the zero velocity valve including all cost of materials, labour charge, form work etc complete as directed by the departmental officers. (Rate as per DSR Observed data)	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 63841.40 / No		Rs 63841.40

9	od197171/2018_2019 STATUTORY APPROVAL FROM KSEB		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 50000.00 / No	Rs 50000.00
21(3) Power Allocation and CD, OYEC charges etc. (Cost Index:41.53 %)			
1	od494/2019_2020 Providing 11 KV line extension, CD and OYEC charges for the power connection of Alady water treatment plant - 400 KVA (Approval from KSEB)		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 2439594.00 / No	Rs 2439594.00
2	od495/2019_2020 Providing 11 KV line extension, CD and OYEC charges for the power connection of Thonithady raw water pumping station - 500 KVA (Approval from KSEB)		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 872306.00 / No	Rs 872306.00
229(a) Supply, Erection, Testing and Commissioning of 2 Nos motor pump sets at Nariyanpara pump house for pumping to Nariyanpara top GL tank (Cost Index:41.53 %)			
No Specifications added under this Estimate			
239(a.) Supply, Erection, Testing and Commissioning of 2 Nos motor pump sets at Nariyanpara pump house for pumping to Nariyanpara top GL tank (Cost Index:41.53 %)			
1	od54105/2020_2021 Supply, Erection, Testing and Commissioning of 2 Nos new Horizontal / Vertical type multi stage Centrifugal motor Pumpset having discharge of 3.50 lps against a total head of 173 M. suction head 5m, speed 1450 rpm at Nariyanpara pumping station.(Intermediate sump to Nariyanpara Top GLSR)		
		Net Total Quantity	2.000 No
		Say 2.000 No @ Rs 247846.92 / No	Rs 495693.84
2	od54106/2020_2021 Supply of additional cable beyond the initial supply of 10Mtr. Additional requirement from panel board to starter and from starter to motor		
		Net Total Quantity	25.000 metre
		Say 25.000 metre @ Rs 193.20 / metre	Rs 4830.00
3	od54107/2020_2021 Supply of suitable size PVC insulated, sheathed, armoured copper conductor cable conforming to relevant IS code, for giving power connections to main switchboard to panel board etc. complete as per standards including end termination materials as per IE rules. The supply shall be limited to the actual requirement.		
		Net Total Quantity	20.000 metre

Say 20.000 metre @ Rs 266.80 / metre		Rs 5336.00
4	od54108/2020_2021 STATUTORY APPROVAL FROM KSEB	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 25000.00 / No		Rs 25000.00
249(b) Supply, Erection, Testing and Commissioning of 2 Nos motor pump sets at Nariyanpara pump house for pumping to Mulakamedu/ Kochuthovala GL tank (Cost Index:41.53 %)		
1	od54144/2020_2021 Supply, Erection, Testing and Commissioning of 2 Nos new Horizontal / Vertical type multi stage Centrifugal motor Pumpset having discharge of 22 lps against a total head of 113 M. suction head 5m, speed 1450 rpm at Nariyanpara pumping station.(Intermediate sump to Mulakamedu and Kochuthovala GLSR)	
Net Total Quantity		2.000 No
Say 2.000 No @ Rs 734489.41 / No		Rs 1468978.82
2	od54145/2020_2021 Supply of additional cable beyond the initial supply of 10Mtr. Additional requirement from panel board to starter and from starter to motor	
Net Total Quantity		25.000 metre
Say 25.000 metre @ Rs 425.50 / metre		Rs 10637.50
3	od54146/2020_2021 Supply of suitable size PVC insulated, sheathed,armoured copper conductor cable conforming to relevant IS code, for giving power connections to main switchboard to pannel board etc. complete as per standards including end termination materials as per IE rules. The supply shall be limited to the actual requirement.	
Net Total Quantity		20.000 metre
Say 20.000 metre @ Rs 816.50 / metre		Rs 16330.00
4	od54147/2020_2021 STATUTORY APPROVAL FROM KSEB	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 25000.00 / No		Rs 25000.00
259(c) Supply, Erection, Testing and Commissioning of 2 Nos motor pump sets at Kalthotty pump house pumping to Labbakada GL tank (Cost Index:41.53 %)		
1	od54190/2020_2021 Supply, Erection, Testing and Commissioning of 2 Nos new Horizontal / Vertical type multi stage Centrifugal motor Pumpset having discharge of 11 lps against a total head of 19 M. suction head 5m, speed 1450 rpm at Kalthotty pumping station.(To Labbakada GLSR)	
Net Total Quantity		2.000 No
Say 2.000 No @ Rs 116130.51 / No		Rs 232261.02

2	od54191/2020_2021 STATUTORY APPROVAL FROM KSEB		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 5000.00 / No	Rs 5000.00
269(d) Supply, Erection, Testing and Commissioning of 2 Nos motor pump sets at Kalthotty pump house pumping to Meppara GL tank (Cost Index:41.53 %)			
1	od54202/2020_2021 Supply, Erection, Testing and Commissioning of 2 Nos new Horizontal / Vertical type multi stage Centrifugal motor Pumpset having discharge of 11 lps against a total head of 184 M. suction head 5m, speed 1450 rpm at Kalthotty pumping station.(Kalthotty to Meppara GLSR)		
		Net Total Quantity	2.000 No
		Say 2.000 No @ Rs 646338.97 / No	Rs 1292677.94
2	od54203/2020_2021 Supply of additional cable beyond the initial supply of 10Mtr. Additional requirement from panel board to starter and from starter to motor		
		Net Total Quantity	25.000 metre
		Say 25.000 metre @ Rs 339.25 / metre	Rs 8481.25
3	od54204/2020_2021 Supply of suitable size PVC insulated, sheathed,armoured copper conductor cable conforming to relevantIS code, for giving power connections to main switchboard to pannel board etc. complete as per standards including end termination materials as per IE rules. The supply shall be limited to the actual requirement.		
		Net Total Quantity	20.000 metre
		Say 20.000 metre @ Rs 396.75 / metre	Rs 7935.00
4	od54205/2020_2021 STATUTORY APPROVAL FROM KSEB		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 25000.00 / No	Rs 25000.00
279(e) Power allocation charges (OYEC & CD) Extension of three phase line to Kalthotti and Nariyanpara pumping station (Cost Index:41.53 %)			
1	od54540/2020_2021 Power allocation and energization of clear water pump house at Kalthotty (Including application fee, power allocation fee , Estimate cost for service connection, Cash deposit) - As per intimation notice DB-2018-19/ESKNCHR/326 dated 22.03.2019 from KSEB)		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 1965000.00 / No	Rs 1965000.00

2	od54541/2020_2021 Any additional cost for actual execution of work - Power allocation and energization of clear water pump house at Kalthotty 100 KVA (Approval from KSEB)	
Net Total Quantity		1.000 L.S
Say 1.000 L.S @ Rs 200000.00 / L.S		Rs 200000.00
3	od54542/2020_2021 Power allocation and energization of clear water pump house at Nariyampara (Including application fee, power allocation fee , Estimate cost for service connection, Cash deposit) - As per intimation notice DB-2018-19/ESKNCHR/326 dated 22.03.2019 from KSEB)	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 920000.00 / No		Rs 920000.00
4	od54543/2020_2021 Any additional cost for actual execution of work - Power allocation and energization of clear water pump house at Nariyampara 160 KVA (Approval from KSEB)	
Net Total Quantity		1.000 L.S
Say 1.000 L.S @ Rs 200000.00 / L.S		Rs 200000.00
2813 - Supply, erection, testing and commissioning of motor pumpsets at Alady pump house (Cost Index:41.53 %)		
No Specifications added under this Estimate		
29Supply, Erection, Testing and Commissioning of 2 Nos Centrifugal Motor Pumpset having discharge of 5 lps against a total head of 81 M. suction head 5m at WTP sump for pumping to Alady Kurisumala GLSR. (Cost Index:41.53 %)		
1	od54791/2020_2021 Supply, Erection, Testing and Commissioning of 2 Nos new Horizontal / Vertical type multi stage Centrifugal motor Pumpset having discharge of 5 lps against a total head of 81 M. suction head 5m, speed 1450 rpm at Alady water treatment plant to Alady GLSR.	
Net Total Quantity		2.000 No
Say 2.000 No @ Rs 238352.12 / No		Rs 476704.24
2	od54792/2020_2021 Supply of additional cable beyond the initial supply of 10Mtr. Additional requirement from panel board to starter and from starter to motor	
Net Total Quantity		25.000 metre
Say 25.000 metre @ Rs 416.30 / metre		Rs 10407.50
3	od54793/2020_2021 Supply of suitable size PVC insulated, sheathed,armoured copper conductor cable conforming to relevantIS code, for giving power connections to main switchboard to pannel board etc. complete as per standards including end termination materials as per IE rules. The supply shall be limited to the actual requirement.	

		Net Total Quantity	20.000 metre
		Say 20.000 metre @ Rs 416.30 / metre	Rs 8326.00
4	od54794/2020_2021 STATUTORY APPROVAL FROM KSEB		
		Net Total Quantity	1.000 No
		Say 1.000 No @ Rs 25000.00 / No	Rs 25000.00
30(2) - Supply, Erection, Testing and Commissioning of 2 Nos new Centrifugal motor Pumpset having discharge of 65 lps against a total head of 125 M. suction head 5m speed 1450 rpm at WTP sump for pumping to Kalthotty / Nariyampara sumps (Cost Index:41.53 %)			
1	od55073/2020_2021 Supply, Erection, Testing and Commissioning of 2 Nos new Horizontal / Vertical type multi stage Centrifugal motor Pumpset having discharge of 65 lps against a total head of 125 M. suction head 5m, speed 1450 rpm at WTP Alady. (From sump to Nariyanpara/ kalthotty intermediate pumping station) including soft starter		
		Net Total Quantity	2.000 No
		Say 2.000 No @ Rs 2884326.68 / No	Rs 5768653.36
2	od55074/2020_2021 Supply of additional cable beyond the initial supply of 10Mtr. Additional requirement from panel board to starter and from starter to motor		
		Net Total Quantity	25.000 metre
		Say 25.000 metre @ Rs 1104.00 / metre	Rs 27600.00
3	od55075/2020_2021 Supply of suitable size PVC insulated, sheathed, armoured copper conductor cable conforming to relevant IS code, for giving power connections to main switchboard to panel board etc. complete as per standards including end termination materials as per IE rules. The supply shall be limited to the actual requirement.		
		Net Total Quantity	20.000 metre
		Say 20.000 metre @ Rs 1104.00 / metre	Rs 22080.00
4	od55076/2020_2021 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All classes of soil (Rate as per DSR Observed data)		
		Net Total Quantity	15.000 cum
		Say 15.000 cum @ Rs 425.54 / cum	Rs 6383.10

5	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil	
Net Total Quantity		15.000 cum
Say 15.000 cum @ Rs 309.95 / cum		Rs 4649.25
6	od55077/2020_2021 Providing 350mm surge arrestor having test pressure 45Kg/cm2 to the clear water pumping main including cost of specials such as 2 Nos. Tail piece, 2 Nos. Mechanical joints, cutting the existing DI pipe, inserting surge arrestor, jointing with flanged joints etc. including cost of surge arrestor.(Rate as per DSR Observed data)	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 600000.00 / No		Rs 600000.00
7	od55078/2020_2021 Cement concrete 1:2:4 using 20mm nominay size metal for anchore block including charges of form work and labour charges etc. complete (Rate as per DSR observed data)	
Net Total Quantity		5.000 cum
Say 5.000 cum @ Rs 8941.83 / cum		Rs 44709.15
8	od55079/2020_2021 Providing air cushion valve of diameter - 200mm & test pressure 45 Kg/cm2 with flanged ends including all cost of materials such as 200mm air cushion valve - 1 No., 200mm D/F CI sluice valve - 1 No. etc and all labour charges for fitting the same in position as directed by the departmental officers.(Rate as per DSR Observed data)	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 409500.00 / No		Rs 409500.00
9	od55080/2020_2021 Constructing RCC valve chamber of size 2.50m x 1.20m x 1.20m for providing the zero velocity valve including all cost of materials, labour charge, form work etc complete as directed by the departmental officers. (Rate as per DSR Observed data)	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 63841.00 / No		Rs 63841.00
10	od55081/2020_2021 STATUTORY APPROVAL FROM KSEB	
Net Total Quantity		1.000 No
Say 1.000 No @ Rs 25000.00 / No		Rs 25000.00
Total		53654910.55
Centage @		0.0%

Centage Amount	0.00
Provision for GST payments (in %) @	18.0%
Amount reserved for GST payments	9657883.90
Total & Centage	63312794.45
Lumpsum for round off	7205.55
GRAND TOTAL Rs	63320000.00
Rounded Grand Total Rs 6,33,20,000	
Rupees Six Crore Thirty Three Lakh Twenty Thousand Only	



Kerala Water Authority

PRICE