

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
1	(1.01) GIS - Fully equipped 400kV, SF6 GIS Line Bay Module . (excludingsupport structure & earthing), Work shall include Erection / Installation, Testing and commissioning of 400kV GIS. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of GIS including all the work / services required for completion including SF6 Gas treatment, handling / filling / top-up e.t.c. complete in all respect. (Note - Material is already unloaded at at Site)	6	Set	1,82,370.90	10,94,225.40
2	(1.02) GIS - Fully equipped 400kV, SF6 GIS Generator Transformer Bay Module . (excluding support structure & earthing), Work shall include Erection / Installation, Testing and commissioning of 400kV GIS. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of GIS including all the work / services required for completion including SF6 Gas treatment, handling / filling / top-up e.t.c. complete in all respect. (Note - Material is already unloaded at at Site)	4	Set	1,57,726.19	6,30,904.76
3	(1.03) GIS - Fully equipped 400kV, SF6 GIS Reactor Bay Module . (excluding support structure & earthing), Work shall include Erection / Installation, Testing and commissioning of 400kV GIS. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of GIS including all the work / services required for completion including SF6 Gas treatment, handling / filling / top-up e.t.c. complete in all respect. (Note - Material is already unloaded at at Site)	2	Set	1,57,726.19	3,15,452.38
4	(1.04) GIS - Fully equipped 400kV, SF6 GIS Start up Transformer Bay Module . (excluding support structure & earthing), Work shall include Erection / Installation, Testing and commissioning of 400kV GIS. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of GIS including all the work / services required for completion including SF6 Gas treatment, handling / filling / top-up e.t.c. complete in all respect. (Note - Material is already unloaded at at Site)	2	Set	1,57,726.19	3,15,452.38
5	(1.05) GIS - Fully equipped 400kV, SF6 GIS Tie Bay Module . (excludingsupport structure & earthing), Work shall include Erection / Installation, Testing and commissioning of 400kV GIS. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of GIS including all the work / services required for completion including SF6 Gas treatment, handling / filling / top-up e.t.c. complete in all respect. (Note - Material is already unloaded at at Site)	5	Set	1,82,370.90	9,11,854.50
6	(1.06) GIS - Phase Isolated, 400kV, SF6 gas-insulated metal enclosed Main Bus Bars complete as per SLD - BUS 1 / BUS 2. (excluding support structure & earthing), Work shall include Erection / Installation, Testing and commissioning of 400kV GIS. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of GIS including all the work / services required for completion including SF6 Gas treatment, handling / filling / top-up e.t.c. complete in all respect. (Note - Material is already unloaded at at Site)	2	Set	1,17,127.26	2,34,254.52

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
7	(1.07) GIS - Phase Isolated, 400kV, SF6 gas-insulated metal enclosed Main Bus Bars complete as per SLD - BUS 3 / BUS 4. (excluding support structure & earthing), Work shall include Erection / Installation, Testing and commissioning of 400kV GIS. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of GIS including all the work / services required for completion including SF6 Gas treatment, handling / filling / top-up e.t.c. complete in all respect. (Note - Material is already unloaded at at Site)	2	Set	1,17,127.26	2,34,254.52
8	(1.08) GIS - 400kV Bus Sectionalizer (for Bus Bars). (excludingsupport structure & earthing), Work shall include Erection / Installation, Testing and commissioning of 400kV GIS. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of GIS including all the work / services required for completion including SF6 Gas treatment, handling / filling / top-up e.t.c. complete in all respect. (Note - Material is already unloaded at at Site)	4	Set	76,398.62	3,05,594.48
9	(1.09) GIS - 400kV Bus Voltage Transformer Bay (for Bus Bars). (excluding support structure & earthing), Work shall include Erection / Installation, Testing and commissioning of 400kV GIS. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of GIS including all the work / services required for completion including SF6 Gas treatment, handling / filling / top-up e.t.c. complete in all respect. (Note - Material is already unloaded at at Site)	4	Set	76,398.62	3,05,594.48
10	(1.10) GIS - Gas Insulated Bus Duct (GIB) - 400kV Phase Isolated, SF6 gas-insulated metal enclosed single phase bus duct from GIS Bay module take-off to to SF6 to Air Bushing. Work includes complete installation of GIB. (excluding support structure & earthing), Work shall include Erection / Installation, Testing and commissioning of 400kV GIB. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of GIB including all the work / services required for completion including SF6 Gas treatment, handling / filling / top-up e.t.c. complete in all respect. (Note - Material is already unloaded at at Site)	1600	Meter	896.17	14,33,872.00
11	(1.11) GIS - SF6 to Air Bushing -Polymer type (including terminal connector),ork shall include Erection / Installation, Testing and commissioning of 400kV GIB complete in all respect. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. (Note - Material is already unloaded at at Site)	36	Nos.	9,857.88	3,54,883.68
12	(1.12) GIS - Local Control Panel (LCC), Work shall include Erection / Installation, Testing and commissioning of LCC Panels. The supervision shall be provided by GIS manufacturer. Arrangement of tool & tackles, testing instruments shall be part of bidder's scope such as and not limited to Annexure-B. The scope includes complete installation of LCC including all the work / services required for ETC of complete LCC (Note - Material is already unloaded at at Site)	21	Nos.	8,961.72	1,88,196.12

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
13	(1.13) GIS - Structure Work for Installation of GIS including Support Structure for GIS, GIB (bus duct), SF6 to Air Bushings, Supports, Platforms, Ladders, Foundation Bolts, Embedded Parts in floors etc. complete in all respect, which are required for installation of GIS system as per the specification (Note - Material is already unloaded at at Site)	50	MT	17,267.93	8,63,396.50
14	(1.14) GIS - SF6 Gas Filling/Recovery/Re-filling Cycle. The cycle of the gas filling/recovery/re-filling will be followed multiple time till the Completion of the HV test. Gas processing and filling unit (DILO machine)shall be in the scope of BHEL/manufaturer. (Note - Material is already unloaded at at Site)	1	Lot	1,48,335.36	1,48,335.36
15	(1.15) GIS - HV Test for GIS - HV test kit shall be arranged by GIS Supplier. Test shall also be conducted by GIS supplier. All necessary support i.e. unloading, shifting, minor assembling of HV test kit, support for complete HV Test, dismantling & loading on carrier. Complete in all respect.	1	Lot	1,53,492.71	1,53,492.71
16	(1.16) GIS - Grounding/ Earthing for GIS complete including Gas Insulated Bus duct, LCC, SF6 to air bushing, using braided Cu wire (insulated/ non-insulated)/ earth strip (Cu/Al/GI flat). Work includes cutting, lug crimping , bolting , fixing etc. and connecting with riser/earth strip (GI/AL /Cu flat) complete in all respect. Grounding Material will be supplied by GIS Supplier /BHEL. (Note - Material is already unloaded at at Site)	1	Lot	3,27,992.39	3,27,992.39
17	(1.17) GIS - Cabling between LCC and GIS (Including respective GIB) including including termination, ferruling , laying, dressing, tagging etc. including arrangement of consumables etc. Cable shall be provided by GIS supplier / BHEL. (Note - Material is already unloaded at at Site)	19	Set	19,715.77	3,74,599.63
18	(2.1) Bus Reactor - 420kV 125 MVAR, 3-Ph, Bus Reactor complete in all respect alongwith its MB Box,Radiator Bank and its cooling arrangement, Conservator, Cooler Control Cabinet/Marshalling Kiosk, accessories and insulating oil. Work includes erection of all auxiliaries viz turrets, bushings, terminal connectors, associated earthing works (excluding riser connections to main earthmat), laying of cable from Transformer auxiliaries to MK, Oil filtration, filling of oil, hot oil circulation, Oil testing etc as required to complete the installation of Reactor (Supervision of unloading, Erection, Testing and commissioning will be done by OEM). Note:- 1) Charges for Oil filtration, filling of oil, hot oil circulation etc for first time commissioning of Transformer are deemed to be covered in this line item. 2) Charges for testing of oil supplied in drums are covered separately under item no. 2.6 below. (Note - Material is already unloaded at at Site)	2	Set	7,15,995.50	14,31,991.00
19	(2.2) Bus Reactor - Descending (Unloading) of Main Tank of 420kV Reactor: Reactor Tank is presently placed on a temporary elevated platform at site. Charges for Descending (shifting) of reactor tank from it's present temporary platform to nearest ground level is included in this scope. Onward shifting at ground level is considered in a separate BOQ item (Sr number 2.3 below). All necessary T&P as per site condition shall be included in scope.	2	Nos.	1,28,879.19	2,57,758.38
20	(2.3) Bus Reactor - Dragging/shifting charges of above mentioned Reactor (1 No.) on ground, upto rail cum road / jacking pad wherever required as per site condition. All necessary T&P as per site condition shall be included in scope.	150	Meter	1,718.38	2,57,757.00
21	(2.4) Bus Reactor - Dragging / shifting charges of above mentioned Reactor (1 No.) on rail cum road	30	Meter	1,718.38	51,551.40

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
22	(2.5) Bus Reactor - Complete dryout of 400kV Bus Reactor by N2 filling/ vaccuuming/ purging and heating (if required) as per BHEL Bhopal procedure (Annexure-F). Complete in all respect excluding supply N2 gas.	2	Lot	44,827.54	89,655.08
23	(2.6) Bus Reactor - Supply of N2 gas as per instruction of BHEL Site. Mode of measurement shall be number of gas cylinder (returnable) having 50kg N2 gas	80	Nos.	2,767.13	2,21,370.40
24	(2.7) Bus Reactor - Oil Testing (BDV, ppm, Resistivity & Tan delta etc for oil supplied in drums (if required). 1 set equals all the tests on 1 sample.	25	Set	9,759.27	2,43,981.75
25	(3.1) Surge Arrester: 390 kV / 360 kV, 1 Phase, Gapless type Metal Oxide Surge Arrester complete with surge counter, leakage current meter, insulating base, connecting cable and terminal connector, without support structure. (Note - Material is already unloaded at at Site)	33	Set	3,681.23	1,21,480.59
26	(3.2) Spare Handing over to customer - Surge Arrester: 390 kV / 360 kV, 1 Phase, Gapless type Metal Oxide Surge Arrester with surge counter, leakage current meter, insulating base, connecting cable and terminal connector (Note - Material is already unloaded at at Site)	3	Set	3,681.23	11,043.69
27	(4.1) 420kV Bus Post Insulator complete with corona ring & terminal connectors without support structure	67	Set	1,402.37	93,958.79
28	(4.2) Spare Handing over to customer - 420kV Bus Post Insulator: with corona ring & terminal connector.	3	Set	1,402.37	4,207.11
29	(6.1) Stringing hardware: 400kV Double tension Polymer long rod / disc insulator suitable for TWIN ACSR BERSIMIS / MOOSE conductor with / without turn Buckle with subconductor spacing 450mm. (31mm / kV)	60	Nos.	2,987.23	1,79,233.80
30	(6.2) Stringing hardware: 400kV Single suspension Polymer long rod / disc insulator suitable for TWIN ACSR BERSIMIS / MOOSE conductor with straight / drop clamp, subconductor spacing 450mm. (31mm / kV)	45	Nos.	1,991.36	89,611.20
31	(7) 7/9 or 7/8 SWG GI Shield wire including tension clamp, PG clamp and clamping on structure for down conductor, fixing/bolting with earth strip etc to complete .	4	Km	36,227.93	1,44,911.72
32	(8) ACSR MOOSE / BERSIMIS Conductor complete with Tee connectors for droppers to equipment connections, PG clamps for busbar jumpering, Twin/Quad bundle spacers etc to complete. (Note - Material is already unloaded at at Site)	3.2	Km	64,158.50	2,05,307.20
33	(9) 4.0" Aluminum Tube (ETC of Al.Tube includes Aluminium welding and bending to be included. Welding sleeve and Al tube will be supplied by BHEL.)	50	Meter	362.86	18,143.00
34	(10.1) 415V AC DISTRIBUTION BOARD (ACDB), complete	1	Set	49,443.98	49,443.98
35	(10.2) DCDB - 220V DC distribution board, complete	1	Set	19,093.21	19,093.21
36	(10.3) DCDB - 48 V DC Distribution board, complete.	1	Set	19,093.21	19,093.21
37	(10.4) 415V AC MAIN LIGHTING DISTRIBUTION BOARD (MLDB) with Lighting Transformer, complete	1	Set	90,692.77	90,692.77
38	(10.5) 415V AC Emergency Lighting Distribution board (AC ELDB) with Lighting Transformer, complete.	1	Set	42,959.74	42,959.74
39	(10.6) 220V DC Emergency Lighting Board (DC ELDB), complete.	1	Set	27,671.32	27,671.32
40	(11.1) BATTERY - 48 V, 400 AH Battery Bank (NiCd/ Lead Acid Plante Battery) along with all accessories such as racks, interconnecting cables, connectors etc.	2	Set	71,599.56	1,43,199.12
41	(11.2) BATTERY - 220 V, 600 AH Battery Bank (NiCd/ Lead Acid Plante Battery) along with all accessories such as racks, interconnecting cables, connectors etc.	2	Set	1,03,421.58	2,06,843.16
42	(11.3) CHARGER - 220V 150A Float Cum Boost Battery Charger	2	Set	19,093.21	38,186.42
43	(11.4) CHARGER - 48 V, 100A Float Cum Boost Battery Charger	2	Set	19,093.21	38,186.42
44	(11.5) BATTERY ACCESSORIES - Battery discharge Load bank (Resistive/ reactive type)	2	Set	6,917.83	13,835.66

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
45	(11.6) BATTERY ACCESSORIES - Battery Health Monitoring System. 1 Set equals BHMS for both 220V and 48V.	1	Set	6,180.50	6,180.50
46	(12) DRY TYPE LT transformer - 630 kVA (or 800kVA). Indoor including dragging to plinth.	2	Set	13,508.39	27,016.78
47	(13) 3 Phase LT Bus duct (Air Insulated)	40	Meter	594.79	23,791.60
48	(14.01) CRP/SAS - 400kV Tie Line-1&2 Relay Panel (Approx 800mm Wide) (AIS End) {1Set = 2 Nos. Panel} - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	2	Set	13,349.87	26,699.74
49	(14.02) CRP/SAS - 400kV Tie Breaker Relay Panel (Approx 800mm Wide) (AIS End) { 1 Set = 1 No. Panel} - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	2	Set	6,674.94	13,349.88
50	(14.03) CRP/SAS - 400kV Centralized Busbar Relay Panel (Approx 800mm Wide) (AIS End) (1 Set=6 Panels) - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	1	Set	40,049.62	40,049.62
51	(14.04) CRP/SAS - 400kV Tie Line - Tie-Future diameter Backup Control Panel (Approx 1000mm Wide) (AIS End) { 1 Set = 1 Panel } - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	2	Set	6,674.94	13,349.88
52	(14.05) CRP/SAS - 400kV Line Relay Panel (Approx 800mm Width) { 1 Set = 2 Nos. Panels } - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	6	Set	13,349.87	80,099.22
53	(14.06) CRP/SAS - 400kV Bus Reactor Relay Panel (Approx 800mm Wide) (1 Set=2 Nos Panels) - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	2	Set	13,349.87	26,699.74
54	(14.07) CRP/SAS - 400kV ST Breaker Relay Panel (Approx 800mm Wide) (GIS End) { 1 Set = 2 No. Panel} - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	2	Set	13,349.87	26,699.74
55	(14.08) CRP/SAS - 400kV GT Breaker Relay Panel (Approx 800mm Wide) (GIS End) { 1 Set = 1 No. Panel} - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	2	Set	6,674.94	13,349.88
56	(14.09) CRP/SAS - 400kV Tie Relay Panel (Approx 800mm Width) { 1 Set = 1 Nos. Panels } - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	7	Set	6,674.94	46,724.58
57	(14.10) CRP/SAS - Islanding Relay Panel (Approx 800mm Wide) {1 Set = 1 No. Panel} - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	2	Set	6,674.94	13,349.88
58	(14.11) CRP/SAS - 400kV Busbar Relay Panel (Approx 800mm Wide) (1 Set=1 Nos Panels) - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	4	Set	6,674.94	26,699.76

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
59	(14.12)CRP/SAS - Metering Panel comprising of main and check meters (Approx 800mm Wide) { 1 Set = 1 No. Panel} - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	4	Set	6,674.94	26,699.76
60	(14.13) CRP/SAS - Synchronizing Trolley (Approx. 600mm wide) - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	1	Nos.	6,674.94	6,674.94
61	(14.14)CRP/SAS - Aux Network Panel/ SAS Panel (Approx 800mm Wide) { 1 Set = 1No. Panel } - Testing and commissioning of relays in scope of panel supplier. Necessary manpower support, wiring, BUS wiring, tools, tackles and Testing equipment to be in scope of ETC contractor.	3	Set	6,674.94	20,024.82
62	(14.15)CRP/SAS - Operator Work Station / Engineering Work Station PC Set at Control room	3	Nos.	798.99	2,396.97
63	(14.16) CRP/SAS - Engineering Work Station PC / DFR at Control room	4	Nos.	798.99	3,195.96
64	(14.17) CRP/SAS - Energy Metering Master Station	1	Nos.	798.99	798.99
65	(14.18) CRP/SAS - A3 printer	2	Nos.	399.50	799.00
66	(14.19) CRP/SAS - Dot Matrix printer	1	Nos.	399.50	399.50
67	(14.2) CRP/SAS - A3 High Speed printer	1	Nos.	399.50	399.50
68	(14.21) CRP/SAS - UPS with Battery Backup	2	Nos.	3,994.95	7,989.90
69	(14.22) CRP/SAS - 67 inch Large Video Screen	1	Nos.	5,117.45	5,117.45
70	(14.23) CRP/SAS - Laptop with relay parameterisation software	2	Nos.	1,236.10	2,472.20
71	(14.24) CRP/SAS - GPS receiver with 100mm TDU complete in all respects including antenna, all cables, processing equipment etc.	1	Nos.	2,396.97	2,396.97
72	(14.25) CRP/SAS - Handling & installation of furniture required in switchyard control room & Power house control room for OWS, printer, chairs etc.	1	Lot	2,396.97	2,396.97
73	(14.26) CRP/SAS - Armoured/ Unarmoured FO cable along with connectors for SAS & Busbar Protection. The laying of network/optical cables shall be in the contractor scope. However, Optical cable will be laid under SAS supplier's supervision. Splicing and Termination shall be in SAS supplier's scope.). FO cable shall be laid in HDPE pipe and the same is covered in seperate BOQ item.	1000	Meter	23.97	23,970.00
74	(14.27) CRP/SAS - Laying of 25 / 32 / 40 mm (Nominal Dia) HDPE pipes. laying can be either on trays, supports or through wall etc. All erection materials viz ties / straps, Al. tags, markers shall be supplied by bidder.	800	Meter	76.58	61,264.00
75	(14.27) CRP/SAS - Laying of 25 / 32 / 40 mm (Nominal Dia) HDPE pipes. at minimum depth of 300mm including excavation, backfilling, making and repairing of walls in trenches, fixing of sockets/ bends , tees, elbows, bends etc as required etc. complete. Both ends of HDPE Pipe shall be closed by plastering. (Payment will be made for the as erected pipe length) All erection materials viz ties / straps, Al. tags, markers shall be supplied by bidder.	200	Meter	133.46	26,692.00
76	(14.28) CRP/SAS - Laying of 100 mm (Nominal Dia) HDPE pipes at minimum depth of 300mm including excavation, backfilling, making and repairing of walls in trenches, fixing of sockets/ bends , tees, elbows, bends etc as required etc. complete. Both ends of HDPE Pipe shall be closed by plastering. (Payment will be made for the as erected pipe length). All erection materials viz ties / straps, Al. tags, markers shall be supplied by bidder.	50	Meter	160.15	8,007.50
77	(15.1) Supply of 25 mm (Nominal Dia) HDPE Pipe including tee / elbow as per relevant IS code. The quantity mentioned are provisional and may vary upto any extend during detailed engineering. Mode of measurement shall be running length of HDPE Pipe only. Tee & Bend as per requirements are deemed included.	400	Meter	77.48	30,992.00

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeep during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
78	(15.2) Supply of 32 mm (Nominal Dia) HDPE Pipe including tee / elbow as per relevant IS code. The quantity mentioned are provisional and may vary upto any extend during detailed engineering. Mode of measurement shall be running length of HDPE Pipe only. Tee & Bend as per requirements are deemed included.	400	Meter	138.36	55,344.00
79	(15.3) Supply of 40 mm (Nominal Dia) HDPE Pipe including tee / elbow as per relevant IS code. The quantity mentioned are provisional and may vary upto any extend during detailed engineering. Mode of measurement shall be running length of HDPE Pipe only. Tee & Bend as per requirements are deemed included.	100	Meter	221.37	22,137.00
80	(15.4) Supply of 100 mm (Nominal Dia) HDPE Pipe including tee / elbow as per relevant IS code. The quantity mentioned are provisional and may vary upto any extend during detailed engineering. Mode of measurement shall be running length of HDPE Pipe only. Tee & Bend as per requirements are deemed included.	50	Meter	996.17	49,808.50
81	(16.1) Telecom Equipment - Digital Protection Coupler Panel. Complete in all respect.	6	Set	7,304.72	43,828.32
82	(16.2) Telecom Equipment - Equipment Cabinets for SDH & PDH equipments. Complete in all respect.	4	Set	7,556.83	30,227.32
83	(16.3) Telecom Equipment - NMS (For SDH Equipment & Multiplexer) (Handling & Storage only)	2	Nos.	6,297.37	12,594.74
84	(16.4) Telecom Equipment - EPAX (24/8) with 24 Telephones , Cables and accessories. Complete in all respect.	1	Set	6,297.37	6,297.37
85	(16.5) Telecom Equipment - HF Cable	100	Meter	22.35	2,235.00
86	(16.6) Telecom Equipment - 4 Wire telephone instrument along with telephone with wires	6	Nos.	118.96	713.76
87	(16.7) Telecom Equipment - 5 Pair telephone cable , armoured ,0.5sq.mm annealed copped conductor and petroleum jelly filled with polyethene outer jackets	300	Meter	18.21	5,463.00
88	(17.01) Cabling of 3Cx2.5 sqmm Cu Control Cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	6500	Meter	14.73	95,745.00
89	(17.02) Cabling of 5Cx2.5 sqmm Cu Control Cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	8000	Meter	14.73	1,17,840.00

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
90	(17.03) Cabling of 7Cx2.5 sqmm Cu Control Cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	4000	Meter	15.78	63,120.00
91	(17.04) Cabling of 10Cx2.5 sqmm Cu Control Cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	14000	Meter	15.78	2,20,920.00
92	(17.05) Cabling of 12Cx2.5 sqmm Cu Control Cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	10000	Meter	21.04	2,10,400.00
93	(17.06) Cabling of 18Cx2.5 sqmm Cu Control Cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	34000	Meter	23.14	7,86,760.00
94	(17.07) Cabling of 3Cx16 sqmm Al Auxiliary Power cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	5000.0	Meter	14.73	73,650.00

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
95	(17.08) Cabling of 4Cx16 sqmm Al Auxiliary Power cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	3500.0	Meter	14.73	51,555.00
96	(17.09) Cabling of 4Cx25 sqmm Al Auxiliary Power cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	6000	Meter	21.04	1,26,240.00
97	(17.1) Cabling of 4Cx50 sqmm Al Auxiliary Power cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	1400	Meter	21.04	29,456.00
98	(17.11) Cabling of 3Cx10 sqmm Al Auxiliary Power cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	5000.0	Meter	14.73	73,650.00
99	(17.12) Cabling of 3.5Cx35 sqmm Al Auxiliary Power cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	1200.0	Meter	21.04	25,248.00

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
100	(17.13) Cabling of 3.5Cx70 sqmm Al Auxiliary Power cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	1000.0	Meter	30.50	30,500.00
101	(17.14) Cabling of 3.5Cx300 sqmm Al Auxiliary Power cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	600	Meter	68.74	41,244.00
102	(17.15) Cabling of 1Cx630 sqmm Al Auxiliary Power cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	600	Meter	186.79	1,12,074.00
103	(17.16) Cabling of 1CX50 sqmm EPR/Cu. FS Power Cable Fire survival Cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	600	Meter	26.77	16,062.00
104	(17.17) Cabling of 1CX150 sqmm EPR/Cu. FS Power Cable Fire survival Cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted separately. (Note - Material is already unloaded at at Site)	500	Meter	52.99	26,495.00

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
105	(17.18) Cabling of 10CX2.5 sqmm EPR/Cu. FS Control Cable Fire survival Cable including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, jointing, crimping, installation of cable gland, termination and drilling/ cutting holes in cable gland plates- laying can be either on trays, supports, underground, buried in ground or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers, GI / PVC wall sleeves with rubber / nylon bushes and flexible steel conduits shall be supplied by bidder. Supply of cable glands shall be quoted seprately. (Note - Material is already unloaded at at Site)	2000	Meter	15.78	31,560.00
106	(17.19) Directly Buried Cable Trench - Power & Control Cables to may be laid in directly buried trench as per requirement. Multiple cables may be laid in one trench. All civil activities such as excavation, backfilling, compaction & supply and laying of brick & sand etc. shall be in contractor's scope. All erection materials viz. Al. tags, route markers, GI / PVC wall sleeves and flexible steel conduits shall be supplied by bidder. Payment on running length of directly buried cable trench.	2000.0	Meter	247.22	4,94,440.00
107	(18.01) Supply of Cable Glands (Double compression type) suitable for - 3cX2.5 sqmm Cu Cable	200	Nos.	233.73	46,746.00
108	(18.02) Supply of Cable Glands (Double compression type) suitable for - 5Cx2.5 sqmm Cu Cable	900	Nos.	233.73	2,10,357.00
109	(18.03) Supply of Cable Glands (Double compression type) suitable for - 7Cx2.5 sqmm Cu Cable	200	Nos.	274.63	54,926.00
110	(18.04) Supply of Cable Glands (Double compression type) suitable for - 10Cx2.5 sqmm Cu Cable	420	Nos.	315.53	1,32,522.60
111	(18.05) Supply of Cable Glands (Double compression type) suitable for - 12Cx2.5 sqmm Cu Cable	375	Nos.	350.59	1,31,471.25
112	(18.06) Supply of Cable Glands (Double compression type) suitable for - 18Cx2.5 sqmm Cu Cable	400	Nos.	379.80	1,51,920.00
113	(18.07) Supply of Cable Glands (Double compression type) suitable for - 3Cx16 sqmm Al Cable	220	Nos.	350.59	77,129.80
114	(18.08) Supply of Cable Glands (Double compression type) suitable for - 4Cx16 sqmm Al Cable	100	Nos.	350.59	35,059.00
115	(18.09) Supply of Cable Glands (Double compression type) suitable for - 4Cx25 sqmm Al Cable	50	Nos.	409.03	20,451.50
116	(18.1) Supply of Cable Glands (Double compression type) suitable for - 4Cx50 sqmm Al Cable	50	Nos.	467.44	23,372.00
117	(18.11) Supply of Cable Glands (Double compression type) suitable for - 3Cx10 sqmm Al Cable	50	Nos.	233.73	11,686.50
118	(18.12) Supply of Cable Glands (Double compression type) suitable for - 3.5Cx35 sqmm Al Cable	50	Nos.	409.03	20,451.50
119	(18.13) Supply of Cable Glands (Double compression type) suitable for - 3.5Cx70 sqmm Al Cable	50	Nos.	467.44	23,372.00
120	(18.14) Supply of Cable Glands (Double compression type) suitable for - 3.5Cx300 sqmm Al Cable	20	Nos.	875.11	17,502.20
121	(18.15) Supply of Cable Glands (Double compression type) suitable for - 1Cx630 sqmm Al Cable	12	Nos.	2,386.65	28,639.80
122	(18.16) Supply of Cable Glands (Double compression type) suitable for - 1CX50 sqmm EPR/Cu. FS Power Cable	20	Nos.	237.91	4,758.20
123	(18.17) Supply of Cable Glands (Double compression type) suitable for - 1CX150 sqmm EPR/Cu. FS Power Cable	20	Nos.	716.00	14,320.00
124	(18.18) Supply of Cable Glands (Double compression type) suitable for - 10CX2.5 sqmm EPR/Cu. FS Control Cable	20	Nos.	315.53	6,310.60

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
125	(19.1) Installation of Cable Trench Material - Single Channel (C1) - Cable Trench Material Bolted Type, following works deemed included in the scope and not being payable separately - installation of cantilever arms, back plate, angle fitting, clamp for single / double channel, base plate for single / double channel, beam clamp, tray fixing clamp, screw, nut bolt, anchor bolt, floor / ceiling / beam / columns support, Side runner for cable tray, side coupler, pvc end cap, earthing clamp, tray clamp etc. Bolted type Cable Rack/Tray material/Hardware , Nut Bolt, fasteners shall be free issued by BHEL. Cutting , drilling, punching, minor civil works also included in the scope. Minor welding and application of protective / zinc rich paint on welded surface is also included in the scope. (Note - Material is already unloaded at at Site)	600	Meter	214.12	1,28,472.00
126	(19.2) Installation of Cable Trench Material - Double Channel (C2) - Cable Trench Material Bolted Type, following works deemed included in the scope and not being payable separately - installation of cantilever arms, back plate, angle fitting, clamp for single / double channel, base plate for single / double channel, beam clamp, tray fixing clamp, screw, nut bolt, anchor bolt, floor / ceiling / beam / columns support, Side runner for cable tray, side coupler, pvc end cap, earthing clamp, tray clamp etc. Bolted type Cable Rack/Tray material/Hardware , Nut Bolt, fasteners shall be free issued by BHEL. Cutting , drilling, punching, minor civil works also included in the scope. Minor welding and application of protective / zinc rich paint on welded surface is also included in the scope. (Note - Material is already unloaded at at Site)	110	Meter	321.18	35,329.80
127	(19.3) Installation of Cable Trench Material - Horizontal support cantilever arm assembly (CA1) - Cable Trench Material Bolted Type, following works deemed included in the scope and not being payable separately - installation of cantilever arms, back plate, angle fitting, clamp for single / double channel, base plate for single / double channel, beam clamp, tray fixing clamp, screw, nut bolt, anchor bolt, floor / ceiling / beam / columnssupport, Side runner for cable tray, side coupler, pvc end cap, earthing clamp, tray clamp etc. Bolted type Cable Rack/Tray material/Hardware , Nut Bolt, fasteners shall be free issued by BHEL. Cutting , drilling, punching, minor civil works also included in the scope. Minor welding and application of protective / zinc rich paint on welded surface is also included in the scope. (Note - Material is already unloaded at at Site)	1850	Nos.	50.00	92,500.00
128	(19.4) Installation of Cable Trench Material - Ladder type cable tray - 600 mm wide (Standard supply length of 2.5m) - Cable Trench Material Bolted Type, following works deemed included in the scope and not being payable separately - installation of cantilever arms, back plate, angle fitting, clamp for single / double channel, base plate for single / double channel, beam clamp, tray fixing clamp, screw, nut bolt, anchor bolt, floor / ceiling / beam / columns support, Side runner for cable tray, side coupler, pvc end cap, earthing clamp, tray clamp etc. Bolted type Cable Rack/Tray material/Hardware , Nut Bolt, fasteners shall be free issued by BHEL. Cutting , drilling, punching, minor civil works also included in the scope. Minor welding and application of protective / zinc rich paint on welded surface is also included in the scope. (Note - Material is already unloaded at at Site)	2750	Meter	38.44	1,05,710.00

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
129	(19.5) Installation of Cable Trench Material - Horizontal / Vertical Tee for ladder type cable tray - 600mm wide - Cable Trench Material Bolted Type, following works deemed included in the scope and not being payable separately - installation of cantilever arms, back plate, angle fitting, clamp for single / double channel, base plate for single / double channel, beam clamp, tray fixing clamp, screw, nut bolt, anchor bolt, floor / ceiling / beam / columns support, Side runner for cable tray, side coupler, pvc end cap, earthing clamp, tray clamp etc. Bolted type Cable Rack/Tray material/Hardware , Nut Bolt, fasteners shall be free issued by BHEL. Cutting , drilling, punching, minor civil works also included in the scope. Minor welding and application of protective / zinc rich paint on welded surface is also included in the scope. (Note - Material is already unloaded at at Site)	30	Nos.	107.06	3,211.80
130	(19.6) Installation of Cable Trench Material - Horizontal / Vertical Bend for Ladder type cable tray - 600mm wide - Cable Trench Material Bolted Type, following works deemed included in the scope and not being payable separately - installation of cantilever arms, back plate, angle fitting, clamp for single / double channel, base plate for single / double channel, beam clamp, tray fixing clamp, screw, nut bolt, anchor bolt, floor / ceiling / beam / columns support, Side runner for cable tray, side coupler, pvc end cap, earthing clamp, tray clamp etc. Bolted type Cable Rack/Tray material/Hardware , Nut Bolt, fasteners shall be free issued by BHEL. Cutting , drilling, punching, minor civil works also included in the scope. Minor welding and application of protective / zinc rich paint on welded surface is also included in the scope. (Note - Material is already unloaded at at Site)	125	Nos.	107.06	13,382.50
131	(19.7) Installation of Cable Trench Material - Ladder / Perforated type cable tray, including bend, tee etc. - 300mm wide - Cable Trench Material Bolted Type, following works deemed included in the scope and not being payable separately - installation of cantilever arms, back plate, angle fitting, clamp for single / double channel, base plate for single / double channel, beam clamp, tray fixing clamp, screw, nut bolt, anchor bolt, floor / ceiling / beam / columns support, Side runner for cable tray, side coupler, pvc end cap, earthing clamp, tray clamp etc. Bolted type Cable Rack/Tray material/Hardware , Nut Bolt, fasteners shall be free issued by BHEL. Cutting , drilling, punching, minor civil works also included in the scope. Minor welding and application of protective / zinc rich paint on welded surface is also included in the scope. (Note - Material is already unloaded at at Site)	200	Meter	19.12	3,824.00
132	(19.8) Installation of Cable Trench Material - Ladder/ Perforated type cable tray, including bend tee etc.- 150mm wide - Cable Trench Material Bolted Type, following works deemed included in the scope and not being payable separately - installation of cantilever arms, back plate, angle fitting, clamp for single / double channel, base plate for single / double channel, beam clamp, tray fixing clamp, screw, nut bolt, anchor bolt, floor / ceiling / beam / columns support, Side runner for cable tray, side coupler, pvc end cap, earthing clamp, tray clamp etc. Bolted type Cable Rack/Tray material/Hardware , Nut Bolt, fasteners shall be free issued by BHEL. Cutting , drilling, punching, minor civil works also included in the scope. Minor welding and application of protective / zinc rich paint on welded surface is also included in the scope. (Note - Material is already unloaded at at Site)	150	Meter	14.79	2,218.50
133	(20.1) Supply of GI pipe, 50 NB (medium duty as per IS 1239. The pipe shall carry BIS certification marking)	195.0	Meter	466.96	91,057.20
134	(20.2) Supply of GI Pipe, 100 NB (medium duty as per IS 1239. The pipe shall carry BIS certification marking)	268.0	Meter	1,099.25	2,94,599.00
135	(20.3) Supply of 90 degree long radius GI elbow, suitable for 50 NB GI pipe (medium duty, as per IS)	44.0	Nos.	474.56	20,880.64

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
136	(20.4) Supply of 90 degree long radius GI elbow, suitable for 100 NB GI pipe (medium duty, as per IS)	54.0	Nos.	1,166.35	62,982.90
137	(20.5) Supply of GI Tee Bend suitable for 50 NB GI pipe (medium duty, as per IS)	24.0	Nos.	405.38	9,729.12
138	(20.6) Supply of GI Tee Bend suitable for 100 NB GI pipe (medium duty, as per IS)	24.0	Nos.	1,027.99	24,671.76
139	(21.1) Laying of GI conduits - GI pipe, 50 NB at minimum depth of 300mm including excavation, backfilling, making and repairing of walls in trenches, cutting, threading, fixing of sockets/ bends , tees, elbows, bends, check nuts, bushings, educers, enlargers, coupling caps, nipples where required etc. complete. Both ends of GI conduits shall be closed by plastering. (Payment will be made for the as erected pipe length including elbow length)	140	Meter	85.91	12,027.40
140	(21.2) Laying of GI conduits - GI Pipe, 100 NB at minimum depth of 300mm including excavation, backfilling, making and repairing of walls in trenches, cutting, threading, fixing of sockets/ bends , tees, elbows, bends, check nuts, bushings, educers, enlargers, coupling caps, nipples where required etc. complete. Both ends of GI conduits shall be closed by plastering. (Payment will be made for the as erected pipe length including elbow length)	240	Meter	102.63	24,631.20
141	(22.1) Installation of GI Pipe 50 NB dia on Lattice/ Pipe Structure/ Vertical wall / Structure including clamping, fixing of sockets/ bends as required etc. complete. Both ends of GI Pipes shall be closed by plastering. (Payment will be made for the as erected pipe length).	20	Meter	85.91	1,718.20
142	(22.2) Installation of GI Pipe 100 NB dia on Lattice/ Pipe Structure/ Vertical wall / Structure including clamping, fixing of sockets/ bends as required etc. complete. Both ends of GI Pipes shall be closed by plastering. (Payment will be made for the as erected pipe length).	20	Meter	102.63	2,052.60
143	(23) Supply and Installation of Fire proof sealing / fire stop system / fire protection coating system required to prevent spreading of fire from one place to other place (or one zone to other zone) through the openings in wall / floor, cables laid in trays / racks and openings below Electrical Switchgear / MCC / Distribution boards / Cabinets / Panels, etc. using suitable block system using individual blocks with suitable framework or by silicon RTV foaming system. Refer clause 5.06.00 Vol. IV: Electrical Works for details	10	Sq.m	2,987.23	29,872.30
144	(24) Galvanised steel Lattice Structures including hardwares for Towers, beams & equipment support (Note - Material is already unloaded at at Site)	252.6	MT	4,733.01	11,95,520.46
145	(25) Galvanised steel Pipe Structures including hardwares for equipment support (Note - Material is already unloaded at at Site)	90	MT	3,996.76	3,59,708.40
146	(26) Supply and Installation of Panel Supporting Angles / Channel etc. Structural Steel Work welded in built up sections like angles, channels & framed work etc including providing cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete	4	MT	84,142.31	3,36,569.24
147	(27.1) Earthing material- 75 x 12 mm GI Flat, Work includes cutting, bending, welding, applying red oxide & zinc rich paint, clamping to structure/building wall etc. to complete. Hardware required for connecting flat on pads of structure & equipment included in scope. Excavation wherever required including backfilling and compaction of backfilled earth is included in scope.	1.5	km	82,979.36	1,24,469.04
148	(27.2) Earthing material- 50 x 6 mm GI Flat, Work includes cutting, bending, welding, applying red oxide & zinc rich paint, clamping to structure/building wall etc. to complete. Hardware required for connecting flat on pads of structure & equipment included in scope. Excavation wherever required including backfilling and compaction of backfilled earth is included in scope.	0.9	km	65,439.11	58,895.20

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
149	(27.3) Earthing work with 25X3 GI Flat GI Flat - Installation of GI Flat including cutting, bending, welding, jointing, supply and application of paint, clamping to structure/building wall etc. to complete in all respect. All arc welding shall be done with low hydrogen content electrodes. the welds should be treated with two coats of metal primer (comprising of red oxide and zinc chromate in a synthetic medium) followed by two finishing coats of aluminum paint. The red oxide and zinc chromate shall conform to IS:2074. Excavation wherever required including backfilling and compaction of backfilled earth is included in scope.	0.5	Km	58,677.70	29,338.85
150	(27.4) Earthing material- 40 mm Dia MS Rod, Work includes cutting, bending, welding, applying red oxide & anti corrosive paint, clamping to structure/building wall etc. to complete. Hardware required for connecting flat on pads of structure & equipment included in scope. Excavation wherever required including backfilling and compaction of backfilled earth is included in scope. (Note - Material is already unloaded at at Site)	2	MT	12,936.89	25,873.78
151	(27.5) Earthing material- Pipe Electrode (to be driven - 3.0 Mtr) including following works: - excavation - installing the pipe electrode. - fabrication and installation of rod electrode. - pipe electrodes in treated earth pit (as per IS) such as alternate layers of coke/ charcoal and salt or bentonite clay. - Backfilling and compaction - Cement Concrete pit with a ISI marked cast iron cover hinged to a cast iron frame to have an access to the joints. - any other work necessary to complete the work Remark :- Pipe Electrode assembly i.e. GI Pipe, Nuts, Bolts & Washers and funnel with wire mesh will be supplied by BHEL. For rod electrode 40mm MS ROD shall be provided by BHEL. (Note - Material is already unloaded at at Site)	40	Nos.	8,519.41	3,40,776.40
152	(27.6) Earthing material - GI wire for Earthing of size 8 SWG to 16 SWG as per technical requirement., EARTHING MATERIAL - The earthing includes earthing of illumination equipment, structures, illumination trenches etc complete for illumination system. GS strip including cutting, bending, welding with 40 mm dia MS rod riser/GS strip, clamping to structure/building wall etc. to complete. Consumable required for welding is in bidder's scope. Hardware required for connecting of earthing material on structure, equipment, luminaries, switches etc complete included in scope. For rust protection, the welds shall be treated with zinc chromate primer and coated with zinc rich paint. Equipment bolted connections after being tested and checked shall be painted with anti corrosive paint/compound. (excluding supply of GI Flat, GI wire, Cu wire / braid, Al flat)	200.0	Kg	98.89	19,778.00
153	(27.7) Earthing material - Copper braided wire for Earthing (if required, size to be derived during engineering), EARTHING MATERIAL - The earthing includes earthing of illumination equipment, structures, illumination trenches etc complete for illumination system. GS strip including cutting, bending, welding with 40 mm dia MS rod riser/GS strip, clamping to structure/building wall etc. to complete. Consumable required for welding is in bidder's scope. Hardware required for connecting of earthing material on structure, equipment, luminaries, switches etc complete included in scope. For rust protection, the welds shall be treated with zinc chromate primer and coated with zinc rich paint. Equipment bolted connections after being tested and checked shall be painted with anti corrosive paint/compound. (excluding supply of GI Flat, GI wire, Cu wire / braid, Al flat)	50.0	Kg	98.89	4,944.50

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
154	(27.8) Earthing material - Aluminum flat of sizes 20X1.5mm and above as per technical requirement., EARTHING MATERIAL - The earthing includes earthing of illumination equipment, structures, illumination trenches etc complete for illumination system. Work including cutting, bending, jointing, clamping to structure/building wall etc. to complete. Hardware required for connecting of earthing material on structure, equipment, luminaries, switches etc complete included in scope. Equipment bolted connections after being tested and checked shall be painted with anti corrosive paint/compound.	20	Kg	98.89	1,977.80
155	(28.01) Spares Handling - 420 KV GIS Mandatory Maintenance Equipment (ref. S1), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	13,835.66	13,835.66
156	(28.02) Spares Handling - 420 KV GIS Mandatory Spares (ref. S2), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	42,475.48	42,475.48
157	(28.03) Spares Handling - LV SWITCHGEAR (ref. S3), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	6,917.83	6,917.83
158	(28.04) Spares Handling - LV TRANSFORMERS (ref. S4), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	6,917.83	6,917.83
159	(28.05) Spares Handling - BATTERY (ref. S5), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	2,905.49	2,905.49
160	(28.06) Spares Handling - BATTERY CHARGERS (ref. S6), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	4,150.70	4,150.70
161	(28.07) Spares Handling - POWER AND CONTROL CABLES (ref. S7), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	1,07,890.51	1,07,890.51
162	(28.08) Spares Handling - TEST EQUIPMENTS (ref. S8), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	11,068.53	11,068.53
163	(28.09) Spares Handling - 390 kV / 360 kV, 1 Phase Surge Arrester (ref. S9), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	1,383.57	1,383.57
164	(28.1) Spares Handling - 420kV POST INSULATOR (ref. S10), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	1,189.57	1,189.57
165	(28.11) Spares Handling - Tele communication Equipment (ref. S11), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	5,947.87	5,947.87
166	(28.12) Spares Handling - Control / Relay / SAS Panel Spare including relays (ref. S12), Unloading, storage & handing over of Essential/ Mandatory spares to Customer as per ANNEXURE: SPARE_LIST	1	Lot	6,917.83	6,917.83
167	(29) Supply & ETC of TANGEDCO approved make 2.0 HP Automatic Start/ Stop type Centrifugal pump and accessories for sump pit	1	Nos.	14,936.19	14,936.19
168	(30) Supply & ETC of TANGEDCO approved make 1.0 HP Automatic Start/ Stop type Centrifugal pump and accessories for sump pit	1	Nos.	13,835.66	13,835.66
169	(31) Supply & ETC of TANGEDCO approved make 0.5 HP Automatic Start/ Stop type Centrifugal pump and accessories for sump pit	1	Nos.	8,961.71	8,961.71
170	(32) Supply & Mounting of Phase Color Discs, Danger Plate and Identification Plates for bays & Equipments as per IS:2551; 1982 & IS:5; 1978.	1	Lot	1,49,361.92	1,49,361.92
171	(33.1) Supply & Installation of Hot Dip Galvanised Hardware - M10 to M20 of required lengths Bolts (Full Threaded) with nut and two Plane Washer and one Spring Washer (Supply of equipment fixing hardware as per specification TB-XXX-618-002a).	180	Kg	110.00	19,800.00

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
172	(33.2) Supply & Installation of Hot Dip Galvanised Anchor Fastner of M10 to M20 of required lengths with nut, Plane washer & Spring Washer	40	Kg	450.00	18,000.00
173	(35) Supply & Installation of INSULATION MAT: The scope covers supply and laying of insulating mats of "class A" conforming to IS: 15652-2006. These insulating mats shall be laid in front of all floor mounted AC and DC switchboards and control & relay panels located in control room building/ Switchyard panel room / GIS LCC Panel e.t.c.refer scope note for details	100	Sq Meter	1,797.77	1,79,777.00
174	(36) Watch & ward of stored / erected / commissioned material at storage area, project site, erection area or any other locations as per material safety requirement and instruction of site in-charge complete in all aspect including safety of 19/33kV Cable system. Safety & Security of 19/33kV Cable system beyond plant boundary is covered in separate BOQ item below. (round the clock security by authorized service agency consisting of armed guard) - 3 security guards rotated in shift of 8 hours each.	20	Per Post Per Month	59,334.68	11,86,693.60
175	(38.1) Shifting of GIS materials from Warehouse (CCI Warehouse at Ennore High Rd, Chennai) to Ennore SEZ site by 40 feet trailer - Transportation of Switchyard equipment, GIS & accessories from CCI Ware House located outside Power Plant area to Switchyard area / Store. Bidder to provide 40 feet trailer with all necessary T&P, Manpower & Fuel etc complete. One trip is considered as distance between CCI warehouse to Ennore SEZ store. Return journey of trailer shall not be payable. The cost of trip includes Carriage charges for 30 Kilometre. (If the one way distance is more / less than 30 Kilometre, payment shall be made on pro rata basis). Loading of material at warehouse is NOT in bidder's scope. Unloading & Safekeeping of material in Switchyard area / store is in bidder's scope. Bidder to ensure high level of safety & security of material.	70	Trip	12,000.00	8,40,000.00
176	(38.2) Deployment of Hydra Crane 14 Ton capacity - Material Segregation & Handling of Switchyard equipment / GIS equipment at CCI Warehouse (at Ennore High Rd, Chennai) with minimum 14 Ton hydra crane. This includes crane with operator, helpers, rope, necessary T&P etc. Mode of measurement shall be in a Shift for 8 hours duty. Addition and deletion of duty hours shall be payable on pro rata basis. (If two hydra is deployed together for handling bidder size of GIS packing, it will be considered as 2 shifts). The scope includes segregation/re-arrangement of boxes at warehouse for taking out the boxes as per erection sequence. Scope of warehouse manager is limited to loading of materials at warehouse hence segregation/shifting/re-arrangement has to be done by bidder.	30	Shift	8,000.00	2,40,000.00
177	(39) Addition / Deletion - Material Unloading (Applicable if there is difference in scope mentioned in BOQ / Technical Specification with respect to site requirement). Mode of measurement shall be gross weight.	100	MT	527.89	52,789.00
178	(40.1) AC Normal Lighting Panel (Outdoor Type) - including installation of accessories / mounting hardwares / anchor fastener / foundation bolt etc complete in all respect.	3	Nos.	5,290.51	15,871.53
179	(40.2) AC Normal Lighting Panel (Outdoor Type) - for emergency light- including installation of accessories / mounting hardwares / anchor fastener / foundation bolt etc complete in all respect.	1	Nos.	5,290.51	5,290.51
180	(40.3) AC Normal Lighting Panel (Indoor Type) Decorative- including installation of accessories / mounting hardwares / anchor fastener / foundation bolt etc complete in all respect.	4	Nos.	3,197.93	12,791.72
181	(40.4) Street Lighting Panel (Outdoor Type)- including installation of accessories / mounting hardwares / anchor fastener / foundation bolt etc complete in all respect.	2	Nos.	5,290.51	10,581.02

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
182	(40.5) Sub Lighting Panel (Outdoor) - including installation of accessories / mounting hardwares / anchor fastener / foundation bolt etc complete in all respect.	4	Nos.	5,290.51	21,162.04
183	(40.6) AC Emergency Lighting Panel (Indoor)-including installation of accessories / mounting hardwares / anchor fastener / foundation bolt etc complete in all respect.	2	Nos.	5,290.51	10,581.02
184	(40.7) DC Emergency Lighting Panel: (Indoor)- including installation of accessories / mounting hardwares / anchor fastener / foundation bolt etc complete in all respect.	1	Nos.	5,290.51	5,290.51
185	(40.8) Welding Distribution Panel (Indoor) with transformer- including installation of accessories / mounting hardwares / anchor fastener / foundation bolt etc complete in all respect.	1	Nos.	5,290.51	5,290.51
186	(41.01) Luminaires Type FC02 (LED) with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	5	Nos.	462.92	2,314.60
187	(41.02) Luminaires Type FC06 (LED) with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	100	Nos.	462.92	46,292.00
188	(41.03) Luminaires Type FC26 (LED) with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	20	Nos.	462.92	9,258.40
189	(41.04) Luminaires Type FC30 (LED) with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	80	Nos.	462.92	37,033.60
190	(41.05) Luminaires Type FC81 (LED) with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	20	Nos.	462.92	9,258.40
191	(41.06) Luminaires Type FC32 (LED) with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	20	Nos.	462.92	9,258.40
192	(41.07) Luminaires Type FC07 with 18W CFL with accessories, suitable for 220V DC application i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	30	Nos.	462.92	13,887.60
193	(41.08) Luminaires Type FC33 with 18W CFL with accessories, suitable for 220V DC application i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	15	Nos.	462.92	6,943.80
194	(41.09) High Bay Luminaires Type SB03 (LED) with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	34	Nos.	618.05	21,013.70
195	(41.10) Street Light Luminaires Type SS62 (LED) with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	10	Nos.	661.31	6,613.10
196	(41.11) Street Light Luminaires Type SS63 (LED) with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	10	Nos.	661.31	6,613.10

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
197	(41.12) Flood Light Luminaires Type SF66 (LED) with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect. Installation at tubular LM having winch provision.	72	Nos.	500.00	36,000.00
198	(41.13) Marine type luminaires 100W lamp with accessories i.e. mounting hardwares, anchor fastener, screw, nut bolt, mounting brackets for wall , ceiling, false ceiling, structure, street light pole, lighting mast, hanger pipe / chain etc complete in all respect.	1	Nos.	500.00	500.00
199	(42.01) Type SWB1 Decorative / Modular switchboards consisting of switch boxes, switches, switch plates and fixing accessories etc complete	5	Nos.	1,236.10	6,180.50
200	(42.02) Type SWB2 Decorative / Modular switchboards consisting of switch boxes, switches, switch plates and fixing accessories etc complete	10	Nos.	1,236.10	12,361.00
201	(42.03) Type SWB2a Decorative / Modular switchboards consisting of switch boxes, switches, switch plates and fixing accessories etc complete	10	Nos.	1,236.10	12,361.00
202	(42.04) Type SWB3 Decorative / Modular switchboards consisting of switch boxes, switches, switch plates and fixing accessories etc complete	20	Nos.	1,236.10	24,722.00
203	(42.05) Type SWB3a Decorative / Modular switchboards consisting of switch boxes, switches, switch plates and fixing accessories etc complete	20	Nos.	1,236.10	24,722.00
204	(42.06) Conduit Junction box Type JB-F including mounting hardware / accessories complete in all respect	100	Nos.	422.48	42,248.00
205	(42.07) Conduit Junction box Type JB-FE including mounting hardware / accessories complete in all respect	10	Nos.	422.48	4,224.80
206	(42.08) Telephone junction box suitable for 20 pair. Indoor type including mounting hardware / accessories complete in all respect	1	Nos.	1,126.61	1,126.61
207	(42.09) Single outlet Telephone socket including mounting hardware / accessories complete in all respect	10	Nos.	328.60	3,286.00
208	(42.10) Type RA Receptacles including mounting hardware / accessories complete in all respect	75	Nos.	991.97	74,397.75
209	(42.11) Type RA (Flame proof) Receptacles including mounting hardware / accessories complete in all respect	5	Nos.	991.97	4,959.85
210	(42.12) Type RB Receptacles including mounting hardware / accessories complete in all respect	65	Nos.	595.18	38,686.70
211	(42.13) Type RC Receptacles including mounting hardware / accessories complete in all respect	7	Nos.	5,290.51	37,033.57
212	(42.14) 250A receptacle, 3 Phase, 415V, 4 Pole MCCB, outdoor type. For oil filtration unit including mounting hardware / accessories complete in all respect	1	Nos.	7,041.32	7,041.32
213	(42.15) 32A receptacle set, Single Phase, 32A DP MCB. Indoor type including mounting hardware / accessories complete in all respect	10	Nos.	991.97	9,919.70
214	(42.16) Portable type 24V supply-modules with 500VA Transformer complete with all accessories	1	Nos.	1,500.00	1,500.00
215	(42.17) Portable 24V halogen lamp unit complete with all accessories	1	Nos.	210.29	210.29
216	(42.18) 5A, 24V industrial type sockets complete with all accessories	1	Nos.	473.16	473.16
217	(42.19) Ceiling fan 1400 mm sweep complete with all accessories	15	Nos.	462.92	6,943.80
218	(42.20) Wall Fan 400 sweep complete with all accessories	20	Nos.	462.92	9,258.40
219	(42.21) Exhaust fans 300 sweep complete with all accessories	10	Nos.	462.92	4,629.20
220	(42.22) Exhaust fans 600 sweep complete with all accessories	10	Nos.	462.92	4,629.20
221	(42.23) Emergency exit sign board/ lamp - (No. PEL111 E/NM)/ equivalent complete with all accessories	10	Nos.	618.05	6,180.50
222	(42.24) Occupancy Sensor / Motion Detector suitable for LED Lights switching upto 200W. complete with all accessories	4	Nos.	618.05	2,472.20

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
223	(42.25) 4 Sq. mm PVC insulated Copper Wire Red/ Yellow/ Blue/ Black/ Grey - including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, crimping, termination - laying can be either on conduit or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers shall be supplied by bidder.	8000	m	5.00	40,000.00
224	(42.26) 2.5 Sq. mm PVC insulated Copper Wire Red/ Yellow/ Blue/ Black/ Grey - including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, crimping, termination - laying can be either on conduit or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers shall be supplied by bidder.	14000	m	5.00	70,000.00
225	(42.27) 1.5 Sq. mm PVC insulated Copper Wire [Green/ Red/ Yellow/ Blue/ Black/ Grey - including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, crimping, termination - laying can be either on conduit or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers shall be supplied by bidder.	6000	m	5.00	30,000.00
226	(42.28) 2 wire telephone cable - including laying, tagging , dressing, ferruling, lugging ,soldering, tapping, crimping, termination - laying can be either on conduit or through GI/PVC pipe over/under ground, through wall etc. All erection materials viz. ferrules, copper lugs, cable ties / straps, Al. tags, markers shall be supplied by bidder.	1000	m	46.94	46,940.00
227	(42.29) 25mm Conduits, heavy-duty type hot dip galvanized steel. Installation on Lattice/ Pipe Stucture/ Vertical wall / Structure including clamping, fixing of sockets/ bends as required etc. complete. (Payment will be made for the as erected conduit length).	1000	m	68.27	68,270.00
228	(42.30) 20mm Conduits, heavy-duty type hot dip galvanized steel. Installation on Lattice/ Pipe Stucture/ Vertical wall / Structure including clamping, fixing of sockets/ bends as required etc. complete. (Payment will be made for the as erected conduit length).	5000	m	68.27	3,41,350.00
229	(42.31) 20mm Flexible conduits made with bright, cold rolled annealed and electro galvanized mild steel strips and coated with PVC. Installation on Lattice/ Pipe Stucture/ Vertical wall / Structure including clamping, fixing of sockets/ bends as required etc. complete. (Payment will be made for the as erected conduit length).	300	m	60.00	18,000.00
230	(42.32) 20mm Conduits, heavy-duty type hot dip galvanized steel conforming to IS-9537 with additional epoxy coating (for use in battery room/ corrosion area). all accessories/ hardware required for epoxy coated conduiting work is deemed included in the scope. Installation on Lattice/ Pipe Stucture/ Vertical wall / Structure including clamping, fixing of sockets/ bends as required etc. complete. (Payment will be made for the as erected conduit length).	200	m	75.72	15,144.00
231	(42.33) GI Hardware / Accessories for Illumination System - With and without Hot dip galvanized / PVC i.e. 3 / 4 way JB, 90 degree GI normal / inspection bend, tees, bushings, reducers, enlargers, coupling caps, nipples, solid bend, spacer, circular boxes (with gasket as applicable), closer, socket, saddle, saddle base, Fan box, mounting hardwares, nut, lock nut, bolt, washer, screw, reducer, U clamp, earth clip/clamp, anchor fastener, etc complete material required for complete installation of Illumination system.	600	Kg	250.00	1,50,000.00
232	(42.34) 25mm PVC Conduits, heavy-duty type. Installation on slab / Lattice/ Pipe Stucture/ Vertical wall / Structure including clamping, fixing of sockets/ bends as required etc. complete. (Payment will be made for the as erected conduit length).	500	m	77.48	38,740.00
233	(42.35) Portable emergency lighting unit-(Prolite cat. No. PEL 210 PNM)/ equivalent. 4 Hour backup. 2X11W CFL/ equivalent LED	2	Nos.	500.00	1,000.00

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
234	(43.01) Lighting Pole (Hot dip galvanized) - Type PS1 (11m,410 SP51 as per IS-2713) including street light junction box complete in all respect excluding civil foundation.	10	Nos.	9,593.80	95,938.00
235	(43.02) LIGHTING MAST (Hot dip galvanized) - 30m high mast with lantern carriage (double drum winch type) including junction box. Suitable mounting of luminaries upto 12 nos. Including Junction Box complete in all respect, excluding civil foundation.	3	Nos.	49,443.98	1,48,331.94
236	(43.03) LIGHTING MAST (Hot dip galvanized) - 20m high mast with lantern carriage (double drum winch type) including junction box. Suitable mounting of luminaries upto 12 nos. Including Junction Box complete in all respect. excluding civil foundation.	3	Nos.	32,962.65	98,887.95
237	(43.04) LADDER - Handing over of Free-standing Ladder, height adjustable (from 5m to 10m height) aluminum ladder	2	Nos.	1,000.00	2,000.00
238	(43.05) LADDER- Handing over of Portable aluminum ladder 3 meter	2	Nos.	500.00	1,000.00
239	(44) Installation of BHEL supplied Split AC (1.5 to 2 ton capacity) in CRB by manufacturer's authorized service engineer, complete in all respect including Indoor, Outdoor unit & connecting copper pipes and cables, power supply.	10	Nos.	5,867.77	58,677.70
240	(45.01) Handling of O&M Spare - Driver for Luminaire Type FC02 (LED)	1	Nos.	100.00	100.00
241	(45.02) Handling of O&M Spare - Driver for Luminaire Type FC06 (LED)	4	Nos.	100.00	400.00
242	(45.03) Handling of O&M Spare - Driver for Luminaire Type FC26 (LED)	1	Nos.	100.00	100.00
243	(45.04) Handling of O&M Spare - Driver for Luminaire Type FC30 (LED)	4	Nos.	100.00	400.00
244	(45.05) Handling of O&M Spare - Driver for Luminaire Type FC81 (LED)	1	Nos.	100.00	100.00
245	(45.06) Handling of O&M Spare - Driver for Luminaire Type FC32 (LED)	1	Nos.	100.00	100.00
246	(45.07) Handling of O&M Spare - Driver for High Bay Luminaire Type SB03 (LED)	2	Nos.	100.00	200.00
247	(45.08) Handling of O&M Spare - Driver for Street Light Luminaire Type SS62 (LED)	1	Nos.	100.00	100.00
248	(45.09) Handling of O&M Spare - Driver for Street Light Luminaire Type SS63 (LED)	1	Nos.	100.00	100.00
249	(45.1) Handling of O&M Spare - Driver for Flood Light Luminaire Type SF66 (LED)	4	Nos.	100.00	400.00
250	(46.04) Supply of GI Earthing Flat sizes from sizes 25X3 mm to 50X6mm as per technical requirement.	100	Kg	98.89	9,889.00
251	(46.05) Supply of GI wire for Earthing of size 8 SWG to 16 SWG as per technical requirement.	50	Kg	98.89	4,944.50
252	(46.06) Supply of Copper braided wire / flexible copper for Earthing (if required, size to be derived during engineering)	20	Kg	850.00	17,000.00
253	(46.07) Supply of Aluminum Flat - Aluminum flat of sizes 20X1.5mm and above as per technical requirement.	20	Kg	250.00	5,000.00
254	(46.08) Supply of 4 Sq. mm Cu PVC Wire Red/Yellow/Blue/Black/Grey (ISI marked with valid CML number). Colour coded	1000	m	30.98	30,980.00
255	(46.09) Supply of 2.5 Sq. mm Cu PVC Wire Red/Yellow/Blue/Black/Grey (ISI marked with valid CML number). Colour coded.	2000	m	22.00	44,000.00
256	(46.1) Supply of 1.5 Sq. mm Cu PVC Wire [Green/Red/Yellow/Blue/Black/Grey (ISI marked with valid CML number).	1000	m	15.00	15,000.00
257	(46.11) Supply of 2 wire telephone cable. (ISI marked).	200	m	18.78	3,756.00
258	(46.12) Supply of 25mm Conduits, heavy-duty type hot dip galvanized steel conforming to IS-9537.	200	m	170.87	34,174.00
259	(46.13) Supply of 20mm Conduits, heavy-duty type hot dip galvanized steel conforming to IS-9537.	800	m	152.09	1,21,672.00
260	(46.14) Supply of 20mm Flexible conduits made with bright, cold rolled annealed and electro galvanized mild steel strips and coated with PVC	50	m	109.84	5,492.00

BILL OF QUANTITIES CUM PRICE SCHEDULE (Annexure-I)

Name of the Work:-Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, upkeeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu.

Customer:- M/s TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD.

Consultant:- M/s DESEIN

Tender Specification No. :- TBSM/ENNORE/BALANCE ETC/TENDER/2122 Date: 19.07.2021

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Amount (Rs.)
261	(46.15) Supply of 20mm Conduits, heavy-duty type hot dip galvanized steel conforming to IS-9537 with additional epoxy coating (for use in battery room/corrosion area). all accessories/ hardware required for epoxy coated conduiting work is deemed included in the scope.	30	m	178.38	5,351.40
262	(46.22) Supply of GI Hardware / Accessories for Illumination System - Hot dip galvanized. all the accessories required for installation of work i.e. 3 / 4 way JB, 90 degree GI normal / inspection bend, tees, bushings, reducers, enlargers, coupling caps, nipples, solid bend, spacer, circular boxes (with gasket as applicable), closer, socket, saddle, saddle base, Fan box, mounting hardwares, nut, lock nut, bolt, washer, screw, reducer, U clamp, earth clip/clamp, anchor fastener, etc complete material required for complete installation of Illumination system. Bidder to submit detailed BOM with weight conversion during execution.	100	Kg	751.07	75,107.00
263	(46.23) Supply of Hardware / Accessories for Illumination System work, as above but without Hot dip galvanization. (As applicable)	100	Kg	563.31	56,331.00
264	(46.24) Supply of 25mm Conduits, PVC, heavy-duty type conforming to IS-9537. - Pipe / conduit / long radius elbow / tee as per IS 9537. The pipe shall carry BIS certification marking. Pipes offered shall be complete with fittings and accessories.	500	m	77.48	38,740.00
265	(47) CIVIL WORKS - Construction Civil Foundation for Illumination system i.e. Lighting Panels / Pole etc, M25 Cement Concrete, ratio (1:cement, 2:sand, 4:stone aggregate nominal size 20 mm) complete in all respect including excavation / backfilling / compaction/ Supply of construction material (including reinforcement steel if required) etc. complete. Civil foundation for high mast is not in bidders scope.	50	Cum	9,388.43	4,69,421.50
Total Amount (in Rs. Excluding GST)					259,73,905.76

Price Schedule / Price Bid

NAME OF WORK :- RECEIPT OF EQUIPMENT/MATERIAL AT SITE, UNLOADING, RECONCILIATION, INSPECTION, VERIFICATION, STORAGE, UP-KEEPING DURING STORAGE, ERECTION, TESTING, COMMISSIONING AND HANDING OVER OF 400 KV GIS SWITCHYARD AT ENNORE TPP IN TAMILNADU

TENDER SPECIFICATION NO.:-TBSM/ENNORE/BALANCE ETC/TENDER/21-22 DATE 19.07.2021

Name of Bidder						
(This BOQ template must not modified/ Replaced by the bidder and same shall be uploaded after filling the relevant columns , else the bidder is liable to be rejected for this tender. Bidders has to be fill the Bidder Name and values only)						
SI No.	Item Description	Quantity	Units	Estimated Rate in Rs.	Total Amount Without taxes (Rs.)	Total Amount (in words)
1	Total amount as per rates in BOQ (as per Annexure-I) for "Receipt of equipment/ material at site, unloading, reconciliation, inspection, verification, storage, up-keeping during storage, erection, testing, commissioning and handing over of 400 kV GIS Switchyard at Ennore TPP in Tamilnadu. "- Excluding GST	1.00	Nos	259,73,905.76	259,73,905.76	Rs. Two Crore Fifty Nine Lakhs Seventy Three Thousand Nine Hundred Five and paisa Seventy Six Only
Total in Figures					259,73,905.76	Rs. Two Crore Fifty Nine Lakhs Seventy Three Thousand Nine Hundred Five and paisa Seventy Six Only
Quoted Rate in Figures			Select	% (Percentage) Excess/Less/ at par		
Quoted Rate (Rs.) in Words after considering % (percentage) Excess/Less/at par						