

BILL OF QUANTITY CUM PRICE SCHEDULE (Annexure-I)

Name of the Work :- ERECTION, TESTING, COMMISSIONING AND HANDING OVER OF 400KV POTHEAD YARD FOR PUNATSANGCHHU-II HYDROELECTRIC PROJECT (6X170MW), BHUTAN

Customer :- M/s PUNATSANGCHHU HYDROELECTRIC PROJECT AUTHORITY – II (PHPA-II), BHUTAN

Tender Spec. No. :- TBSM/PUNATSANGCHHU-II/BHUTAN/ETC/TENDER/22-23 Date : 16.07.2022

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
1	400kV, 3-Phase, Horizontal Double Break Isolator(motor/ manual operated) with two earth switch (motor/ manual operated) complete with 9 nos. of support insulators & terminal connectors without support structure	6	Nos	36989.98	221939.88
2	400kV, 1 Ph, 2000A, Oil-filled Current Transformer, live/dead tank complete with terminal connectors without support structure	18	Nos	19375.71	348762.78
3	400kV, 1 Ph, Voltage Transformer (Capacitive) complete with terminal connectors without support structure	18	Nos	18895.32	340115.76
4	390kV, 1 Phase, Gapless type Metal Oxide Surge Arrester complete with surge counter, leakage current meter, insulating base, connecting cable and terminal connectors without support structure	18	Nos	16653.49	299762.82
5	400kV, 1 Ph, Post insulators with corona ring complete with terminal connectors without support structure	6	Nos	15852.85	95117.10
6	400kV, 1 Ph, Wave Trap (Pedestal type) complete with 3 nos. post insulators per WT with terminal connectors without support structure.	12	Nos	17975.39	215704.68
7	CT Junction Box (on foundation/structure)	6	Nos	6725.45	40352.70
8	CVT Junction Box (on foundation/structure)	6	Nos	6725.45	40352.70
9	Bay Marshalling Kiosks (Outdoor, Floor mounted on cable trench)	6	Nos	11529.35	69176.10
10	Galvanised steel Lattice Structures including hardware for Towers, beams, LM & equipments support	130	MT	9657.86	1255521.80
11	Installing terminal connectors for equipment where any ETC work other than installation of connector is not in scope of contractor. (Connectors shall be provided by BHEL)	18	No. of bushings	289.16	5204.88
12	400kV Double Tension insulator string with double/single anchoring point, string comprising 2X25 nos. disc with hardware set with all accessories including tension clamp with/ without Turn Buckle set suitable for twin/ quad conductor	3	Sets	24019.48	72058.44
13	400kV Single Suspension insulator string comprising 1X25 nos. disc with hardware set with all accessories including drop/through type suspension clamp suitable for single/ twin/ quad conductor	18	Nos	19856.10	357409.80
14	400kV Single Tension insulator string with double/single anchoring point, string comprising 1X25 nos. disc with hardware set with all accessories including tension clamp with/ without Turn Buckle set suitable for twin/ quad conductor	3	Sets	19856.10	59568.30
15	7/9 SWG GI Stranded Shield wire including tension clamp, PG clamp and clamping on structure for down conductor, fixing/bolting with earth strip etc to complete	1400	m	112.09	156926.00
16	Conductor complete with Tee connectors for droppers to equipment connections, PG clamps for busbar jumpering, Twin/Quad bundle rigid/flexible spacers etc to complete	1.8	kM	140421.54	252758.77
17	4.0" Al Tube (ETC of Al.Tube includes Aluminium welding and bending to be included. Welding sleeve and tube will be supplied by BHEL)	450	m	1073.32	482994.00

BILL OF QUANTITY CUM PRICE SCHEDULE (Annexure-I)

Name of the Work :- ERECTION, TESTING, COMMISSIONING AND HANDING OVER OF 400KV POTHEAD YARD FOR PUNATSANGCHHU-II HYDROELECTRIC PROJECT (6X170MW), BHUTAN

Customer :- M/s PUNATSANGCHHU HYDROELECTRIC PROJECT AUTHORITY – II (PHPA-II), BHUTAN

Tender Spec. No. :- TBSM/PUNATSANGCHHU-II/BHUTAN/ETC/TENDER/22-23 Date : 16.07.2022

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
18	Cabling of 19C x 2.5 sq mm Copper cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be followed. Supply rates of Glands shall be quoted separately.	0.5	kM	67254.53	33627.27
19	Cabling of 14C x 2.5 sq mm Copper cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be followed. Supply rates of Glands shall be quoted separately.	0.5	kM	63411.41	31705.71
20	Cabling of 12C x 2.5 sq mm Copper cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be followed. Supply rates of Glands shall be quoted separately.	0.5	kM	46536.64	23268.32
21	Cabling of 10C x 2.5 sq mm Copper cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be followed. Supply rates of Glands shall be quoted separately.	0.5	kM	43235.05	21617.53

BILL OF QUANTITY CUM PRICE SCHEDULE (Annexure-I)

Name of the Work :- ERECTION, TESTING, COMMISSIONING AND HANDING OVER OF 400KV POTHEAD YARD FOR PUNATSANGCHHU-II HYDROELECTRIC PROJECT (6X170MW), BHUTAN

Customer :- M/s PUNATSANGCHHU HYDROELECTRIC PROJECT AUTHORITY – II (PHPA-II), BHUTAN

Tender Spec. No. :- TBSM/PUNATSANGCHHU-II/BHUTAN/ETC/TENDER/22-23 Date : 16.07.2022

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
22	Cabling of 7C x 2.5 sq mm Copper cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be followed. Supply rates of Glands shall be quoted separately.	0.5	kM	32666.49	16333.25
23	Cabling of 5C x 2.5 sq mm Copper cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be followed. Supply rates of Glands shall be quoted separately.	0.5	kM	33627.26	16813.63
24	Cabling of 2C x 6 sq mm Aluminium cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be follow. Supply rates of Glands shall be quoted separately.	0.5	kM	48038.95	24019.48
25	Cabling of 4C x 6 sq mm Aluminium cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be follow. Supply rates of Glands shall be quoted separately.	0.5	kM	76862.31	38431.16

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Customer :- M/s PUNATSANGCHHU HYDROELECTRIC PROJECT AUTHORITY – II (PHPA-II), BHUTAN

Tender Spec. No. :- TBSM/PUNATSANGCHHU-II/BHUTAN/ETC/TENDER/22-23 Date : 16.07.2022

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
26	Cabling of 4C x 16 sq mm Aluminium cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be follow. Supply rates of Glands shall be quoted separately.	1	kM	86470.11	86470.11
27	Cabling of 3.5C x 35 sq mm Aluminium cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be follow. Supply rates of Glands shall be quoted separately.	0.5	kM	25263.69	12631.85
28	Cabling of 3.5C x 70 sq mm Aluminium cable including laying, tagging , dressing, ferruling, lugging, soldering, tapping, jointing, crimping, termination, and drilling/ cutting holes in cable gland plates, ETC of glands - laying can be either on trays, supports, underground (buried in ground or through GI/PVC pipe), over 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. Extra holes closing in glands plates with GI sheet shall be in ETC contractor scope. Technical specification of cable tagging intervals, and lugs as per Customer /field approval shall be follow. Supply rates of Glands shall be quoted separately.	0.5	kM	36623.26	18311.63
29	Laying of 100 to 750 mm wide, 2.5 M long , 2 mm thick GI Ladder type Cable trays: including bends, tees, elbow, reducers, stiffeners coupler plates, bolting/ welding to racks, equipment structure etc. to complete. Minor modification work by cutting welding wherever required shall also be part of work. (Cable Tray material shall be provided by BHEL)	570	Nos	485.37	276660.90
30	Cable Rack work for WELDED TYPE steel racks for trenches in outdoor switchyard and OR indoor area. Cable rack assembly will be of 1/2/3 tier. Work includes welding of Galvanised Steel racks on inserts on trench walls in trenches in indoor & outdoor areas. (Cable Rack material shall be provided by BHEL)	310	Nos	2269.52	703551.20
31	Cable Rack work for WELDED TYPE steel racks. Work includes welding of Galvanised Steel underhung/ wall mounted racks assembly on Embedded plates/ inserts in ceiling/ walls of cable vault. Cable rack assembly will be of 1/2/3 tier. (Cable Rack material shall be provided by BHEL)	20	Nos	2269.52	45390.40

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Customer :- M/s PUNATSANGCHHU HYDROELECTRIC PROJECT AUTHORITY – II (PHPA-II), BHUTAN

Tender Spec. No. :- TBSM/PUNATSANGCHHU-II/BHUTAN/ETC/TENDER/22-23 Date : 16.07.2022

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
32	Fixing of 50 NB NB GI pipes on Lattice/ Pipe Structure including welding/ clamping, fixing of sockets/ bends as required etc. complete. Both ends of GI Pipes shall be closed by plastering. Any clamp or hardware for fixing (if required) shall be supplied/ fabricated at site, by bidder. (Payment will be made for the as erected pipe length)	50	m	499.61	24980.50
33	Fixing of 100 NB NB GI pipes on Lattice/ Pipe Structure including welding/ clamping, fixing of sockets/ bends as required etc. complete. Both ends of GI Pipes shall be closed by plastering. Any clamp or hardware for fixing (if required) shall be supplied/ fabricated at site, by bidder. (Payment will be made for the as erected pipe length)	30	m	768.62	23058.60
34	Earthing works with 75 X 12 mm GI FLAT- works earthing of all pothead yard equipment, towers, lattice/pipe structure, cable trenches, fence, electrodes for neutral of LT transformer/ Reactor & at interconnections of other grid, Control Room equipment using necessary Connectors for earthing flats. GS strip including cutting, bending, welding with 40 mm dia MS rod riser/earth strip, applying zinc rich paint, clamping to structure/building wall etc. to complete. Hardware required for connecting flat on pads of structure & equipment included in scope. The Earthing of equipments, Auxiliary Earthmats under Iso/ ES/ CB MOM boxes shall be carried out as per TB-4-365-318-006 and Customer Specification for Earthing	2300	m	167.61	385503.00
35	Earthing works with 50 X 6 mm GI FLAT- works earthing of all pothead yard equipments, towers, lattice/pipe structure, cable trenches, fence, electrodes for neutral of LT transformer/ Reactor & at interconnections of other grid, Control Room equipment using necessary Connectors for earthing flats. GS strip including cutting, bending, welding with 40 mm dia MS rod riser/earth strip, applying zinc rich paint, clamping to structure/building wall etc. to complete. Hardware required for connecting flat on pads of structure & equipment included in scope. The Earthing of equipments, Auxiliary Earthmats under Iso/ ES/ CB MOM boxes shall be carried out as per TB-4-365-318-006 and Customer Specification for Earthing	600	m	143.67	86202.00
36	Installing of 40 mm diameter Rod Electrode without test pit/link as per Equipment Earthing drawing including following works including following works: - excavation/hammering of rod in earth - installing the rod electrode - backfilling and compaction - any other work necessary to complete the work (40 mm Diameter MS rod will be supplied by BHEL)	2	Nos.	9607.80	19215.60
37	Installing of 40/100 mm dia GS pipe Electrode (length - 3.0 Mtr) with test links and treated earth pit as per Equipment Earthing drawing with CI frame and hinged cover alongwith all associated civil works i.e - excavation - installing the pipe electrode with alternate layers of Coke & charcoal, salt - backfilling and compaction - Casting the Test Pit with Cast Iron covers - any other work necessary to complete the work (Only GI Pipe, Nuts, Bolts & Washers, test links will be supplied by BHEL. Other items like CI frame, CI cover, charcoal, salt etc shall be supplied by contractor)	2	Nos.	17294.03	34588.06

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Customer :- M/s PUNATSANGCHHU HYDROELECTRIC PROJECT AUTHORITY – II (PHPA-II), BHUTAN					
Tender Spec. No. :- TBSM/PUNATSANGCHHU-II/BHUTAN/ETC/TENDER/22-23 Date : 16.07.2022					
Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
38	Unloading, storage & handing over of Essential/ Mandatory spares/ Maintenance equipments and Instruments to Customer. Refer enclosed Annexure-A for list of spares.	1	Lot	48038.95	48038.95
39	Installation of customer/ BHEL approved make 0.5 HP Automatic Start/ Stop type Centrifugal pump (self priming) and accessories for sump pit	1	Nos	2882.33	2882.33
40	Supply of Cable Gland for 19C x 2.5 sq mm Copper cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from customer approved Vendors)	30	Nos	455.54	13666.20
41	Supply of Cable Gland for 14C x 2.5 sq mm Copper cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from customer approved Vendors)	30	Nos	378.91	11367.30
42	Supply of Cable Gland for 12C x 2.5 sq mm Copper cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from customer approved Vendors)	30	Nos	368.50	11055.00
43	Supply of Cable Gland for 10C x 2.5 sq mm Copper cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from customer approved Vendors)	70	Nos	341.01	23870.70

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Customer :- M/s PUNATSANGCHHU HYDROELECTRIC PROJECT AUTHORITY – II (PHPA-II), BHUTAN

Tender Spec. No. :- TBSM/PUNATSANGCHHU-II/BHUTAN/ETC/TENDER/22-23 Date : 16.07.2022

Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
44	Supply of Cable Gland for 7C x 2.5 sq mm Copper cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from customer approved Vendors)	30	Nos	268.31	8049.30
45	Supply of Cable Gland for 5C x 2.5 sq mm Copper cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from customer approved Vendors)	30	Nos	223.59	6707.70
46	Supply of Cable Gland for 2C x 6 sq mm Aluminium cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from Customer approved Vendors)	40	Nos	278.47	11138.80
47	Supply of Cable Gland for 4C x 6 sq mm Aluminium cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from Customer approved Vendors)	60	Nos	378.91	22734.60

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Customer :- M/s PUNATSANGCHHU HYDROELECTRIC PROJECT AUTHORITY – II (PHPA-II), BHUTAN					
Tender Spec. No. :- TBSM/PUNATSANGCHHU-II/BHUTAN/ETC/TENDER/22-23 Date : 16.07.2022					
Sl. No.	Description of Item	Quantity	UOM	Unit Rate (Rs.)	Total Amount (Rs.)
48	Supply of Cable Gland for 4C x 16 sq mm Aluminium cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from Customer approved Vendors)	60	Nos	378.91	22734.60
49	Supply of Cable Gland for 3.5C x 35 sq mm Aluminium cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from Customer approved Vendors)	12	Nos	442.06	5304.72
50	Supply of Cable Gland for 3.5C x 70 sq mm Aluminium cable: The cable glands shall conform to BIS 6121. They shall comprise of heavy duty brass casting, machine finished, double compression type and Nickel Chrome plated (coating thickness not less than 10 microns) to avoid corrossion and oxidation. Rubber components used in cable glands shall be neoprene and of tested quality. The cable gland shall be complete with necessary armour clamp & tapered washer etc. Cable glands are required for the following cables for dust and weather proof terminations. (Bidder's Scope is to supply only & ETC is covered under respective cable ETC). The quantity shown herewith is indicative only and shall change to any extend as per Site requirement. (Cable glands to be procured from Customer approved Vendors)	12	Nos	505.21	6062.52
51	Supply of 50 NB GI pipes (Medium grade as per IS 1239, Customer accepted) alongwith accessories like sockets, bends, tees etc. as per technical specification Annexure-E3	50	m	430.93	21546.50
52	Supply of 100 NB GI pipes (Medium grade as per IS 1239, Customer accepted) alongwith accessories like sockets, bends, tees etc. as per technical specification Annexure-E3	30	m	1053.26	31597.80
53	Supply of Equipment fixing hardware including nut, bolt and plain /spring washer as per Site requirement (Bidder's scope is to supply only. Erection is covered under erection of individual equipment) Technical specifications of Hardware to be supplied by bidder shall be as per Annexure-E4. Note - Size of hardware shall be suitable for equipments /box/JB, and same shall be decided at site.	100	kg	112.80	11280.00
54	Supply of customer/ BHEL approved make 0.5 HP Automatic Start/ Stop type Centrifugal pump (self priming) and accessories for sump pit	1	Nos	25941.03	25941.03
Total Amount in Rs. (Excluding GST)					6520085