

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter-XII: Schedule of items Quantities and Factor for
deriving Item Rate from the accepted Lumpsum Price

DISMANTLING OF EXISTING C&I SYSTEM, HANDING OVER MATERIAL TO CUSTOMER, HANDLING AT SITE STORES/STORAGE YARD TRANSPORTATION TO SITE OF WORK, COMPLETE ERECTION, CHECKING OF CALIBRATION, TESTING, COMMISSIONING AND HANDING OVER OF CONTROL & INSTRUMENTATION FOR BOILER AND ITS AUXILIARIES, TURBINE AND ITS AUXILIARIES, TURBOGENERATOR AND ITS AUXILIARIES, & STATION C&I FOR MAIN PLANT PACKAGE OF RENOVATION & MODERNIZATION UKAI R&M U#3 & U#4 AT GSECL UKAI TPS DIST : TAPI

PART B: Schedule of items & Quantities and Factors to derive Item Rate based on quoted total lumpsum price

SL. NO.	DESCRIPTION	UOM	QTY	Terms of Payments	Factor for deriving item rate from accepted Lumpsum price
1.0	Cable tray and Accessories			1.0	
1.0.1	Perforated cable tray and accessories (with or without cover) 50mm	Meter	100		0.000007143322
1.0.2	Perforated cable tray and accessories (with or without cover) 100mm	Meter	1500		0.000008014459
1.0.3	Perforated cable tray and accessories (with or without cover) 150mm	Meter	1500		0.000010254526
12.0	Cable laying including earthing wires			12.0	
12.0.1	Screened Copper Cable 2P x 0.5 sqmm armoured / unarmoured	Meter	48319		0.000001269371
12.0.2	Screened Copper Cable 4P x 0.5 sqmm armoured / unarmoured	Meter	66503		0.000001493378
12.0.3	Screened Copper Cable 6P / 8P x 0.5 sqmm armoured / unarmoured	Meter	52850		0.000001726718
12.0.4	Screened Copper Cable 10P / 12P x 0.5 sqmm armoured / unarmoured	Meter	860		0.000002040949
12.0.5	Screened Copper Cable 16P x 0.5 sqmm armoured / unarmoured	Meter	1018		0.000001908205
12.0.6	2Px19/0.3 sq.mm x 2P Flame scanner cable	Meter	3049		0.000001269371
12.0.7	Screened Copper Cable 10C x 1.5 sqmm armoured / unarmoured	Meter	18000		0.000001928946
12.0.8	Screened Copper Cable 2P/4C x 1.5 sqmm armoured / unarmoured	Meter	5000		0.000001462265
12.0.9	Screened Copper Cable 5C/7C x 1.5 sqmm armoured / unarmoured	Meter	3062		0.000001642715
12.0.10	Power Copper Cable 2C x 2.5 sqmm armoured / unarmoured	Meter	1000		0.000001368929
12.0.10	Power Copper Cable 3C / 4C x 2.5 sqmm armoured / unarmoured	Meter	12000		0.000001368929
12.0.11	Power Copper Cable 2C x 6 sqmm armoured / unarmoured	Meter	12131		0.000001534860
12.0.12	Compensating cable 1P/2P x 1.3 sqmm type Tx/Sx/Kx unarmoured/armoured	Meter	5500		0.000001368929
12.0.13	Compensating cable 4P/ 6P x 1.3 sqmm type Tx/Sx/Kx unarmoured/armoured	Meter	6500		0.000001680050
12.0.14	Laying, etc of Optical fibre cables on cable trays, HDPE conduits, etc with minor civil works	Meter	3000		0.000002563631
12.0.15	Laying, etc. of Network UTP Cables in flexible GI pipes(special termination using UTP connectors involved)	Meter	6000		0.000001717384
12.0.16	3C X 16 sqmm Aluminium	Meter	710		0.000000995585
12.0.17	1C X 25 sqmm Aluminium	Meter	1000		0.000001431153
12.0.18	1C X 95 sqmm Aluminium	Meter	7000		0.000003297875
12.0.19	1C X 630 sqmm Aluminium	Meter	1000		0.000005849062
12.0.20	GI earthing wire Diameter 3.15mm or 8 SWG	Meter	100		0.000001026697
12.0.21	GI Flat 50 x 6 mm	Meter	100		0.000006745088
12.0.22	Hoses-1/4", 1/2" , 1" , SS/Teflon, Braided/unbraided, upto 5M length	Meter	20		0.000019756140

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SL. NO.	DESCRIPTION	UOM	QTY	Terms of Payments	Factor for deriving item rate from accepted Lumpsum price
14.0	Junction box/Push Button station			14.0	
14.0.1	Junction boxes upto 48 way	No	374		0.000099981625
14.0.2	Junction boxes above 48 way	No	6		0.000126771159
14.0.3	6 way miniature Junction Box	No	24		0.000054010487
15.0	Conduits/Impulse pipe/tubes			15.0	
15.0.1	SS tube 1/4" OD	Meter	50		0.000011905537
15.0.2	Copper tube 6mm/8mm / 1/4" (Sheathed / bare)	Meter	100		0.000008120240
16.0	Miscellaneous Structural steel including frames for Panels/Racks/Instruments, supports for cable tray/pipes/tubes, Canopies etc			16.0	
16.0.1	Structural Steel fabrication & installation (MS angle, Channel, Plate etc)	MT	12		0.001693987905
17.0	Panels/Cubicles/Racks/Enclosures/Monitors/Computer/C omputer peripheral/PLCs/UPS/Batteries			17.0	
17.0.1	Control Panel (approx. weight 400kg, 1000(L) X 1000(B) X 2500(H) mm) - one panel	No	15		0.001160453895
17.0.2	Control Panel (approx. weight 800kg, 1500(L) X 1000(B) X 2500(H) mm) - suit of two panels	No	22		0.001762123254
17.0.3	Control Panel (approx. weight 1200kg, 2250(L) X 1000(B) X 2500(H) mm) - suit of three panels	No	7		0.002136867677
17.0.4	Control Panel (approx. weight 1600kg, 2600(L) X 1000(B) X 2500(H) mm) - suit of four panels	No	2		0.002376005123
17.0.5	Unit Control Panel	No	2		0.001780354905
17.0.6	Transducer and AVT panel	No	2		0.001392014525
17.0.7	NETWORK PANELS (approx. 750 x 800 x 2415 mm)	Set	2		0.001149278453
17.0.8	max Engineering / operator / storian / LAN / WAN / Shift in charge / stn in charge / gateway / interface PC / HART etc., PC/Server Station with ASCII Keyboard, Mouse & 21" Colour Monitor, individual UPS	No	18		0.000473550013
17.0.9	Printers (80/132 col Dot Matrix, A3 Inkjet, A3 Laserjet, A4 size etc)	No	8		0.000237969708
17.0.10	LVS (Large Video Screen) and related accessories having 2 nos. of screens its computers, network cables, etc.	Set	2		0.000287516656
17.0.11	Computer furniture for all Servers, PCs, Printers	Set	2		0.003966721824
17.0.12	Plant Control Desk / CRT desk	Set	2		0.001200613305
17.0.13	24V DC Battery and charger system alongwith its DCDB	Set	2		0.010441571200
18.0	Instruments/Devices including sensors/Cells/Probes etc			18.0	
18.0.1	Pressure Switch / DP Switch / DP indicating switch	No	26		0.000078501879
18.0.2	Pressure / DP / Flow (DP type) / Level -Transmitter	No	10		0.000077307176
18.0.3	Position Transmitters	No	10		0.000108369429
18.0.4	Electronic Level Transmitter (with amplifier, etc), Capacitance or conductivity type / Guided Wave Radar(GWR) transmitter	No	2		0.000261042391
18.0.5	Pressure Gauge / DP gauge/DP Indicator	No	10		0.000064090785
18.0.6	Temperature Gauge (all types)	No	10		0.000068720256

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18.0.7	Level Indicator / Level Gauge	No	5		0.000192720369
18.0.8	Thermocouple / RTDs with thermowell (all types) along with converters wherever applicable	No	150		0.000048833445
19.0	Commissioning and Testing activities for Equipments erected by other agencies, like control valves, on/off valves, electrical/pneumatic valves, actuators, solenoid valves, valves, limit switches, ERV controllers, power cylinders, Pressure & Temperature Guages/Transmitters,etc			19.0	
19.0.1	Electrical LT Uni-Directional Drives	No	100		0.000241211582
19.0.2	Electrical HT Uni-Directional Drives	No	54		0.000241211582
19.0.3	Electrical Bi-Directional Drives, Actuators	No	200		0.000241211582
19.0.4	Electrical regulating drives: (Valve, damper, scoop)	No	4		0.000119644429
19.0.5	Pneumatic regulating drives: (Valve, damper) incl Burner tilt	No	70		0.000089527983
19.0.6	Commissioning of Hydraulic actuators	No	8		0.000168950777
19.0.7	Corner valve/ Trip valves commissioning	No	80		0.000073698181
19.0.8	Open/Close type pneumatic gates / dampers / valves	No	40		0.000122058723
19.0.9	Pulveriser Lube oil skid	No	12		0.000703654600
19.0.10	Fan & APH Lube oil skid	No	8		0.000613628825
19.0.11	Only commissioning of Pr. Transmitter, Diff. Pr. Transmitter, Flow Transmitter, etc..	No	200		0.000019339239
19.0.12	Only healthiness checking of embedded RTD / T/C	No	400		0.000030406826
19.0.13	Limit Switches (checking and adjusting only).	No	40		0.000028672848
19.0.14	Commissioning assistance for Soot Blowers	No	168		0.000048410321
111.0	Miscellaneous items (items not covered under above heads)			111.0	
111.0.1	Electronic Earth Pit	Set	2		0.001269370895
	DISMANTLING BOQ				
112.0	Dismantling & Removal of items from site and handover to Customer's store			As per payment terms given in TCC	
112.0.1	DCS Control Panels (all types) approx dimension 900x700x2440 mm	Nos	38		0.000622240635
112.0.2	Cables (all types) approx. 110 KM per unit	Set	2		0.077157838742
112.0.3	Junction Boxes (all types)	Nos	100		0.000049779251
112.0.4	Thermocouples & RTDs (all types)	Nos	150		0.000024889625
112.0.5	24V DCDB, Battery charger set	Set	2		0.005220598928
112.0.6	Unit Control Panel Cum Desk having 11 sections containing Bar Graph Indicators (approx.. 30 nos.), Auto Manual Stations, Indicators, Push Buttons, Ammeters etc. Bar Graph Indicators to be removed and re-installed on new Unit Control Panel. [1900x1800x2440 mm - 2 nos., 1900x920x2440 mm - 2 nos., 1900x1400x2440 mm - 3 nos., 1900x1100x2440 mm - 3 nos.], Unit Control Desk [3350x1220x915 mm - 1 nos.] alongwith cables	Set	2		0.007423081879
112.0.7	Dismantling of existing old / unusable cable trays	Mtrs	200		0.000004231236