



# भारत हेवी इलेक्ट्रिकल्स लिमिटेड

( भारत सरकार का उपक्रम )

## BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

**TCN - 04**

Ref: PSER:SCT:NBN-I1764:TCN-04

Date: 16-09-2016

Sub	Tender Change Notice (TCN) - 04	
Job	PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.	
Ref	1.0	Tender no PSER:SCT:NBN-I1764:16
	2.0	BHEL's NIT, vide reference no PSER:SCT:NBN-I1764:5172, Dated 20-08-2016
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:NBN-I1764:TCN-01, dated 23-08-2016.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:NBN-I1764:TCN-02, dated 02-09-2016.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:NBN-I1764:TCN-03, dated 09-09-2016.
	6.0	Other References, if any.

With reference to above, following points/ documents, relevant to tender, may please be noted and complied with while submitting the offer.

- 1) Extension of due date of offer submission from **19-09-2016 to 22-09-2016 (15:00 Hrs)**
- 2) Revised BOQ cum price schedule, **VOLUME-III-PRICE SCHEDULE, REV-2** is attached **superseding VOLUME-III PRICE SCHEDULE, REV-1** issued earlier along with TCN-01. Bidder shall quote as per this revised Volume-III, Rev-02 only. Bidders are also requested to submit a declaration in techno-commercial offer that they have submitted their price bid as per **REVISED price schedule** format (**VOLUME-III- PRICE SCHEDULE, REV-2**).  
(For uploading Revised/Latest price schedule format in E-procurement Portal, contact Mjunction.)
- 3) Revised 'No deviation certificate' is attached. Bidder to submit 'No deviation certificate' as per attached format only.
- 4) All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,  
for BHARAT HEAVY ELECTRICALS LTD

Sr.Engineer (SCT)

Encl: As above.

पावर सेक्टर पूर्वी क्षेत्र ( मुख्यालय )

POWER SECTOR EASTERN REGION, DJ-9/1, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : (033) 23398234/ 23398000

<b>VOLUME-III PRICE SCHEDULE, REV-2</b>	
<b>PACKAGE-1 Erection, testing &amp; commissioning of electrical and C&amp;I system of SG (Unit # 1) and complete station C&amp;I system for Unit# 1, 2 &amp; 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.</b>	
<b>TENDER NO - PSER:SCT:NBN-I1764:16</b>	
<b>PREAMBLE</b>	
<b>SL NO</b>	<b>DESCRIPTION</b>
1.0	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully before filling in rates for various items. Clauses under this preamble shall be read in conjunction with Volume-1A,IB, 1C,1D, 1E , 1F,II and other tender sections (as applicable as per NIT) and shall have precedence over any contrary statement mentioned any where in this document.The tenderer shall sign & stamp all the pages of the tender document as a token of their acceptance.Submission of unfilled formats with sign & stamp shall be construed as acceptance of the contents of the same.
2.0	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions. Drawings enclosed with the tender are only preliminary and for guidance/tender purposes giving some idea of the work involved. The work is to be executed as per terms & conditions of the tender and actual drawings/documents, which shall be furnished during execution.
3.0	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
4.0	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc. equipment, strengthening of roads/culverts/bridges etc. including arranging all clearances etc. required for carrying out different activities & tests, materials, levies, taxes(except service tax), transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the complete tender document and this schedule.
5.0	The quantities of the various items mentioned in this schedule of items are approximate, based on very preliminary information and may vary to any extent or be deleted altogether. The quoted rates of each item will remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in the total value of work executed under any part of this contract including extra items, if any but excluding any price variation remains, within fifteen percent ( $\pm 15\%$ ) of the awarded price as per LOI .
6.0	Prior written approval of BHEL shall be sought by the contractor in case quantity variation of any item crosses +50% (plus fifty percent) limit during execution and approval to be obtained before execution of further quantity for this item.
7.0	In case Sealed /Paper Price Bids are opened for finalisation of the tender, for any Item Rate/BOQ based service contract, possibility of variation of quantity/ addition/deletion of items can not be ruled out. Under such circumstances, after execution of work, if it is observed that standing as L-1 is changed based on actual quantity executed, the bidder shall give suitable rebate to maintain your standing as L-1. Since this aspect can be assessed at the end of execution, necessary adjustment will be effected at the end of execution in final bill.This condition shall not be applicable where the tender is finalised through Reverse Auction.
8.0	BHEL reserve the right to rationalize the rates, quoted by L-1 bidder against unit rate items and/ or other optional items with respect to item-wise lowest rates (amongst the participating bidders), before placement of order.The rates of unit rate/optional items shall remain valid till execution of the order, if the job/work is awarded to the bidder.
9.0	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing , clearing of old structures and leveling etc. including fixing of grid pillars, benchmarks etc. required for commencement of site activities. No separate payment will be made towards the same.However, if separate rate for such item is available in the rate schedule, the same shall be considered.
10.0	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
11.0	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted as per BHEL approved payment schedule/billing break-up.
12.0	The tenderer shall be deemed to have visited site and made himself aware of all the site conditions, studied the specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site before submission of his bid/offer.No claim whatsoever due to lack of knowledge of site conditions shall be entertained after award of the work.

<b>VOLUME-III PRICE SCHEDULE, REV-2</b>	
<b>PACKAGE-1 Erection, testing &amp; commissioning of electrical and C&amp;I system of SG (Unit # 1) and complete station C&amp;I system for Unit# 1, 2 &amp; 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.</b>	
<b>TENDER NO - PSER:SCT:NBN-I1764:16</b>	
<b>PREAMBLE</b>	
13.0	No splitting of the job is envisaged unless the same is specifically indicated in the TCC/Vol-1F. Decision of BHEL in this regard shall be final and binding to the bidders.
14.0	Bidders are not allowed to alter the Price Schedule format including item description, quantity etc. and the offer is liable for rejection if the bidders submit their prices in Price Schedules modified by them. BHEL reserves the right to reject the offers of bidders who submit offers in Price Formats which are modified/ altered by them. Also putting any comments instead of rates/price in the designated column of the rate schedule shall make the offer liable for rejection.
15.0	Bidders to note that for Civil &/Structural packages, against a particular item against a ST No. appearing in more than one schedule of the BOQ, same rate must be quoted in all schedules for that particular items with same descriptions. If by error, different rates are quoted in different schedules for same ST No. (i.e. item with same description), then the higher of the rates shall be considered for evaluation but awarding shall be done with the lower rate, if the bidder becomes L-1. The same modality shall be applicable for other item rate service contracts where item with same description is repeated in different schedules.
16.0	For Lumpsum Service Contract : The items/components indicated in the tender is indicative and may vary to any extent. No compensation shall be payable in case of any variation in the items/components listed in the bill of quantities if the executed weight remains within the variation limit. However, in case of deletion of any item or addition of new items over and above the items listed or variation of existing quantity beyond variation limit specified, adjustment (i.e. Payment or recovery as the case may be ) shall be done on pro-rata basis based on the Rate per MT worked out from the quoted lump-sum Price and the total weight of components listed /indicated in price schedule plus 15% weight variation limit.
17.0	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.
18.0	In case of tender for Civil and/or Structural works, if the Non-schedule items are not quoted by the bidder, it will be treated at par with rate of corresponding item of CPWD/PWD/DSR schedule as prescribed in the tender/BOQ cum Rate Schedule. PVC/escalation is not payable for these Non-scheduled items.
19.0	No interest, whatsoever, shall be payable by BHEL on the security deposit, any bank guarantee submitted or any amount due to successful bidder/contractor. No idling charge whatsoever (either for labour or any other resources ) is payable by BHEL for any reason whatsoever.
20.0	Size and weights of various items are mentioned in the attached BOQ cum rate/price schedule for reference purpose only & these shall not be taken into consideration for quoting/calculating amount in the rate schedule. These shall be utilised as per relevant sections of tender. Bidders shall quote for each item in the rate column, taking unit as mentioned in the quantity column. Rates shall be filled in both figures and words. Amount shall be calculated based upon these rates multiplied by the mentioned quantity for the respective items.
21.0	Bidder's GRAND Total price will be shall be considered for evaluation unless stated otherwise.
22.0	In case of BOP packages, if Bidder does not quote/indicate the price for freight charges against indicated rate schedule, the same shall be considered as 2% of basic price and adjusted with the total quoted price against each item keeping the total quoted price unaltered.

<b>VOLUME-III</b>		
<b>PRICE SCHEDULE, REV-2</b>		
<b>PACKAGE-1 Erection, testing &amp; commissioning of electrical and C&amp;I system of SG (Unit # 1) and complete station C&amp;I system for Unit# 1, 2 &amp; 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.</b>		
<b>TENDER NO - PSER:SCT:NBN-I1764:16</b>		
<b>SCH-1 MAIN PRICE</b>		
<b>SL NO</b>	<b>ITEM/SCHEDULE</b>	<b>TOTAL AMOUNT ( )</b>
<b>1</b>	TOTAL PRICE AS PER PART-A FOR ELECTRICAL JOB OF SG SYSTEM, UNIT # 1	
<b>2</b>	TOTAL PRICE AS PER PART-B FOR C&I JOB OF SG SYSTEM, UNIT # 1	
<b>3</b>	TOTAL PRICE AS PER PART-C FOR STATION C&I SYSTEM OF 3X660 MW NPGCL-NABINAGAR PROJECT	
<b>GRAND TOTAL (SL. NO.1+ SL.NO.2+ SL. NO.3)</b>		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-11764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

SL NO	EQUIPMENT DESCRIPTION	BILLING SCH. REF. NO.	QTY FOR UNIT # 1	UNIT	UNIT RATE (Rs)	AMOUNT (Rs)
(1)	(2)	(3)	(4)	(5)	(6)	(7) =(6)x(4)
1.0	AUXILIARY CONTROL PANEL (DOUBLE FRONT, DRAW OUT TYPE) AND DUMMY PANEL (12450 mm x 1300 mm x 2525 mm) 9100 Kg / PANEL	6	6	NO		
2.0	ELECTRONIC CONTROL PANEL- 95 KV,800mA (600 mm x 550 mm x 2000 mm) 250 Kg / PALNEL	6	108	NO		
3.0	HIGH VOLTAGE TRANSFORMER RECTIFIER - 95 KV, 800 mA (2040 mm x 1550 mm x 1960 mm) 1880 Kg / HVR (COMMISSIONING INCLUDING OIL FILTRATION)	6	108	NO		
4.0	DISCONNECTING SWITCH ASSY. VAR.05 (1200 mm x 1100 mm x 750 mm) 200 kg (COMMISSIONING ONLY)	7	108	NO		
5.0	GEARED MOTOR FOR COLLECTING ELECTRODE RAPPING 0.5 HP,1.1 RPM. 220 KG / Motor (COMMISSIONING ONLY)	7	108	NO		
6.0	GEARED MOTOR FOR GD SCREEN RAPPING MOTOR 0.5 HP, 1.1 RPM. 220 KG / Motor (COMMISSIONING ONLY)	7	12	NO		
7.0	GEARED MOTOR FOR EMITTING ELECTRODE RAPPING MOTOR 0.5 HP,2.5 RPM. 109 KG / Motor (COMMISSIONING ONLY)	7	108	NO		
8.0	HEATING ELEMENTS FOR HOPPERS (PANEL TYPE HOPPER HEATER) 107 KG / HE SET (COMMISSIONING ONLY)	7	108	SET		
9.0	HEATING ELEMENTS FOR SUPPORT INSULATOR HEATER. 2.5 KG/HE (COMMISSIONING ONLY)	7	432	NO		
10.0	HEATING ELEMENTS FOR SHAFT INSULATOR HEATERS, 3.0 KG / HE	7	108	NO		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

11.0	THERMOSTAT FOR HOPPER (35 mm x 100 mm x 100 mm, 0.5 KG / TH)	7	108	NO		
12.0	THERMOSTAT FOR SUPPORT INSULATOR (35 mm x 100 mm x 100 mm, 0.5 KG/TH)	7	12	NO		
13.0	LOCAL START STOP PUSH BUTTON FOR RAPPING MOTOR (180 mm x 100 mm x 250 mm, 3.0 KG/PB)	3	228	NO		
14.0	LOCAL CONTROL BOX FOR PANEL TYPE HOPPER HEATER (800 mm x 150 mm x 300 mm, 55.0 Kg/JB)	3	108	NO		
15.0	LOCAL FRP JUNCTION BOX FOR ASH LEVEL INDICATOR (LOW & HIGH)- VAR-C2, FOR NTPC USE. 12 KG / JB	3	32	NO		
16.0	FRP JUNCTION BOX FOR SUPPORT INSULATOR HEATERS (450 mm x 150 mm x 300 mm, 12.0 KG/JB)	3	24	NO		
17.0	FRP JUNCTION BOX FOR SHAFT INSULATOR HEATERS, (450 mm x 150 mm x 300 mm, 12 kg/JB)	3	12	NO		
18.0	ASH LEVEL INDICATOR (HIGH & LOW) (900 mm x 100 mm x 100 mm, 12.0 KG/ALI)	7	216	NO		
19.0	RAPPER CONTROL PANEL (1000 mm x 650 mm x 2050 mm, 250 kg)	6	6	NO		
20.0	STATCON PANEL (250 kg)	6	6	NO		
21.0	ELECTRICALLY OPERATED HOIST 3T (EOH) (1300 kg/EOH) (COMMISSIONING ONLY)	7	6	NO		
22.0	<b>LT POWER CABLES (ARMOURED / UN-ARMOURED)-LAYING</b>					
22.1	2C-120 MM <sup>2</sup> AL	2	84000	MTR		
22.2	3C-70 MM <sup>2</sup> AL	2	5400	MTR		
22.3	3C-16 MM <sup>2</sup> AL	2	44000	MTR		
22.4	3C-2.5 MM <sup>2</sup> CU	2	87000	MTR		
22.5	2C-2.5 MM <sup>2</sup> CU	2	12000	MTR		
23.0	<b>DELETED</b>					
24.0	<b>CABLE TERMINATION</b>					
24.1	2C-120 MM <sup>2</sup> AL	2	80	NO		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-11764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

24.2	3C-70 MM <sup>2</sup> AL	2	10	NO	
24.3	3C-16 MM <sup>2</sup> AL	2	50	NO	
24.5	2C-2.5 MM <sup>2</sup> CU	2	20	NO	
24.6	3C-2.5 MM <sup>2</sup> CU	2	90	NO	
25.0	<b>LT CONTROL CABLES (ARMOURED)-LAYING</b>				
25.1	3C-1.5 MM <sup>2</sup> CU	2	40000	MTR	
25.2	2C-1.5 MM <sup>2</sup> CU	2	2500	MTR	
25.3	12C-1.5 MM <sup>2</sup> CU	2	88000	MTR	
25.4	14C-1.5 MM <sup>2</sup> CU	2	8500	MTR	
25.5	LT SCREENED COPPER ARMOURED CABLE, 4C-1.5 MM <sup>2</sup>	2	72000	MTR	
26.0	<b>CABLE TERMINATION</b>				
26.1	3C-1.5 MM <sup>2</sup> CU	2	270	NO	
26.2	2C-1.5 MM <sup>2</sup> CU	2	10	NO	
26.3	12C-1.5 MM <sup>2</sup> CU	2	74	NO	
26.4	14C-1.5 MM <sup>2</sup> CU	2	12		
26.5	LT SCREENED COPPER ARMOURED CABLE, 4C-1.5 MM <sup>2</sup>	2	260	NO	
27.0	<b>STRAIGHT THROUGH JOINTING FOR FOLLOWING SIZE OF LT CABLES:</b>				
27.1	2C -12 C x 2.5 SQ MM (CU)(upto 2.5 sq mm. cable size, rate shall be inclusive of supply of jointing kit	2	40	NO	
27.2	3C x 6 SQ MM (CU)	2	10	NO	
27.3	4C x 16 SQ MM (AL)	2	10	NO	
27.4	3C x 35 SQ MM (AL)	2	10	NO	
27.5	3.5C x 35 SQ MM (AL)	2	10	NO	
28.0	INTERLOCKS (COMMISSIONING ONLY)	9	6	SETS	
28.0	DATA LOGGER PERSONAL COMPUTER WITH COLOUR MONITOR	7	1	SETS	
29.0	IOS PERSONAL COMPUTER WITH 21' COLOUR MONITOR	7	1	SETS	
30.0	PRINTER (LASER JET COLOUR)	7	1	NO	

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

31.0	FRP JUNCTION BOX FOR START STOP PB VAR-C2 (250 mm x 150 mm x 400 mm, 12 kg/JB)	3	24	NO		
32.0	FRP JUNCTION BOX FOR HOPPER HEATER FEEDBACK, VAR-C2 (250 mm x 150 mm x 400 mm, 12 kg/JB)	3	12	NO		
33.0	FRP JUNCTION BOX FOR ALI – HIGH & LOW, VAR-C2 (250 mm x 150 mm x 400 mm, 12 kg/JB)	3	24	NO		
34.0	FRP JUNCTION BOX FOR DUST DENSITY MONITOR (250 mm x 150 mm x 400 mm, 12 kg/JB)	3	6	NO		
35.0	DUST DENSITY MONITOR (DDM) 100 KG / OPM	7	6	NO		
36.0	ARECA CONTROLLER FITTED IN EC PANEL (280 mm X 210 mm X 210 mm, 05 KG / ARECA)	7	108	NO		
37.0	RAPCON CONTROLLER (24 WAYS) FITTED IN RAPCON PANEL (280 mm x 210 mm x 210 mm, 250 kg)	7	24	NO		
38.0	STATCON CONTROLLER FITTED IN STATCON PANEL	7	6	NO		
39.0	<b>CABLE TRAYS WITH ACCESSORIES (LADDER TYPE)</b>					
39.1	600 mm (W)	1	4500	MTR		
39.2	450 mm (W)	1	3000	MTR		
39.3	300 mm (W)	1	1500	MTR		
40.0	<b>CABLE TRAYS WITH ACCESSORIES (PERFORATED TYPE)</b>					
40.1	600 mm (W)	1	700	MTR		
40.2	300 mm (W)	1	350	MTR		
41.0	GI FLAT 30mm X 5mm	4	3900	MTR		
42.0	GI FLAT 50mm X 6mm	4	6200	MTR		
43.0	GI WIRE - 4.0 mm DIA (8 SWG)	4	22000	MTR		
44.0	<b>BOLTED TYPE FLEXIBLE CABLE TRAY SUPPORT</b>					
44.1	SINGLE SUPPORT CHANNEL	1	1500	MTR		
44.2	BASE PLATE FOR SINGLE SUPPORT CHANNEL	1	5200	NO		
44.3	DOUBLE SUPPORT CHANNEL	1	3200	MTR		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

44.4	CANTILEVER ARM (C/A) - 350 mm	1	320	NO	
44.5	BEAM CLAMP	1	1300	NO	
44.6	CLAMP FOR SINGLE CHANNEL-CC1	1	1160	NO	
44.7	TRAY CLAMP FOR LADDER TYPE CABLE TRAY	1	17050	NO	
44.8	M6 FASTENER SET	1	3650	NO	
44.9	M12 FASTENER SET	1	40000	SET	
44.10	90 DEGREE ANGLE FITTING	1	7900	NO	
44.11	CLAMP FOR DOUBLE CHANNEL-CC2	1	270	NO	
44.12	RIGHT ANGLE HEAVY DUTY FITTING	1	1900	NO	
44.13	STRAIGHT FITTING	1	650	NO	
44.14	BASE PLATE FOR DOUBLE CHANNEL	1	2500	NO	
45.0	STRUCTURAL STEEL FOR CABLE TRAY SUPPORT AND MISC. FABRICATION JOB	5	50	MT	
46.0	OPACITY MONITOR	7	6	SET	
47.0	IOS PANEL (1000 mm X 650 mm X 2000 mm, 250 Kg. / Panel)	6	1	NO	
48.0	DATA LOGGER PC WITH COLOUR MONITOR (1220 mm x 762 mm, 10 kg)	7	1	NO	
49.0	Dry out of HT Motors	9	7	NO	
50.0	Testing, Commissioning of HT Motors ( Dry out is excluded)	9	16	NO	
51.0	<b>Dry out of LT Motors</b>				
51.1	Upto 5 KW	9	301	NO	
51.2	More than 5 KW & Upto 50 KW	9	22	NO	
51.3	Above 50 KW	9	11	NO	
52.0	<b>Testing, Commissioning of LT Motors (Dry out is EXCLUDED)</b>				
52.1	Upto 5 KW	9	301	NO	
52.2	More than 5 KW & Upto 50 KW	9	22	NO	
52.3	Above 50 KW	9	11	NO	
53.0	SOOT BLOWER & MOV (COMMISSIONING ONLY)	9	210	NO	

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-11764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

54.0	LOCAL JUNCTION BOX FOR ALI – HIGH & LOW (600 mm x 150 mm x 315 mm, 12 kg)	3	24	NO		
55.0	Furnace Temp. probe including solenoid, thermocouple etc.	7	2	NO		
56.0	Electrically (LT) operated valves, Blowers, Dampers and Gates with Actuators, Limit Switches etc.	7	1353	NO		
57.0	SEE PANELS	6	7	NO		
58.0	SEE TRANSFORMER (3050X2895X1845),7 MVA	6	1	NO		
59.0	Supply & making the earth pit as per IS:3043 including earth/masonry work (size of electrode 50 mm dia, GI pipe, 3 m long, class 'B'). Pit shall be filled with alternative layer of charcoal & salt. GI pipe shall be with funnel with wire mesh for watering, masonry block CI cover complete as per IS. All the earth pits are to be inter connected with GI strip of size 50 x 6 mm including supply of all material.	6	5	SET		
59.0	<b>MINOR CIVIL WORK</b>					
59.1	Chipping / breaking of brick wall and concrete floor/wall [Including Finishing]	10	20	Cu. M		
59.2	Supply & installation of Heavy duty Galvanised friction anchor fastners of Hilti / Bosch or any other approved make of dia 16 mm and 100 mm length with supply of all hardwares as required.	10	80	NO		
59.3	Excavation with lift up to 0.5 meters including draining and pumping out water to maintain reasonably dry working condition for all activities, including backfilling & compaction of excavated material after completion of the activities etc. all complete as per drawings and/or instructions of the engineer	10	20	Cu. M		

**GRAND TOTAL**

**VOLUME-III  
PRICE SCHEDULE, REV-2**

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**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
<b>1.0</b>	<b>CABLE TRAYS (GI Perforated Type/Ladder type with/without cover) (complete with all fixing accessories as applicable as per drawing , including site modifications required for all types of bends / turns or any profile, as required to suit site layout)</b>					
<b>1.01</b>	Cable tray & acc. -100 MM width	Mtr	1	7425		
<b>1.02</b>	Cable tray & acc. -150 MM width	Mtr	1	15322		
<b>1.03</b>	Cable tray & acc. -50 MM width	Mtr	1	10300		
<b>1.04</b>	Cable Duct 60x60x1000/ Cable Duct 100x180x1000/Cable Duct 100x250x1000	Mtrs.	1	400		
<b>2.0</b>	<b>CABLING (LT- POWER/CONTROL/SIGNAL) (Armoured/unarmoured, Individual Shielded/overall shielded/unshielded/FRLS, Cu/Al)</b>					
2.01	1C X 630 SQ.MM AI XLPE	Mtrs.	2	480		
2.02	1C X 120 SQ.MM AI	Mtrs.	2	3620		
2.03	1C X 35 SQ.MM AI	Mtrs.	2	2460		
2.04	2C X 35 SQ.MM AI	Mtrs.	2	3000		
2.05	2C X 70 SQ.MM AI	Mtrs.	2	1720		
2.06	3CX240 SQ.MM XLPE INS.POWER CABLE	Mtrs.	2	1000		
2.07	3CX6 SQ.MM	Mtrs.	2	500		
2.08	2P-8P X 0.5 SQ.MM	Mtrs.	2	272300		
2.09	12P X 0.5 SQ.MM	Mtrs.	2	9500		
2.10	Thermocouple Extension 2x2x0.5 sq.mm / T/C EXTENSION / COMP. CABLE 2P / Kx/Rx/Sx type.	Mtrs.	2	18300		
2.11	Optical fibre cables with /without HDPE conduit(laying except termination)	Mtrs.	2	3000		
2.12	Flame scanner shielded cable (2PX1.3 Sq. mm)	Mtrs.	2	12000		
2.13	2C - 7C upto 2.5 SQ. MM.	Mtrs.	2	93950		
2.14	10C - 19C upto 2.5sqmm SQ. MM Cable.	Mtrs.	2	9350		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
2.15	2PX1.5 SQ.MM cable	Mtrs.	2	10600		
2.16	3C x 16 SQ.MM cable	Mtrs.	2	2600		
2.17	Network UTP Cable			9000		
2.18	12P-16P X 0.5 SQ.MM KX/RX/SX TYPE EXTENSION CABLE	Mtrs.	2	1200		
2.19	GI Earthing Wire	Mtrs.	2	1700		
2.20	GI strip 300x25x2 mm	Mtrs.	2	200		
2.21	SHIELDED SIGNAL CABLE for Flow Meter	Mtrs.	2	30		
2.22	SONIC SENSOR PIG TAIL CABLE	Mtrs.	2	450		
2.23	RG-11 VIDEO CABLE	Mtrs.	2	1800		
2.24	RG-59 VIDEO CABLE	Mtrs.	2	200		
2.25	4 C X 3.31	Mtrs.	2	1030		
2.26	18 C X 3.31	Mtrs.	2	530		
2.27	6 C X 3.31	Mtrs.	2	100		
2.28	HOSE - 1/4", 1/2", 1", ss/Teflon, Braided/Unbraided, up to 5M length.	Mtrs.	4	345		
	<b>Note : (1). Insulated copper lugs of std quality, Numbered ferrules by machine printed ,Tags ,ties are to be supplied by the Bidder at his cost. However all the lugs supplied by BHEL/trichy will be handed over to vendor at free of cost. (2) Gland will be supplied by BHEL free of Cost.</b>					
<b>3.0</b>	<b>JUNCTION BOX (ELECTRICAL/FRP, MS/FIBRE/GI, Cold Junction Compensation Box ETC.) (with or without canopy erection)</b>					
3.01	JUNCTION BOX 6 Way	No.	3	20		
3.02	JUNCTION BOX 12 Way	No.	3	25		
3.03	JUNCTION BOX - 24 Way	No.	3	194		
3.04	JUNCTION BOX - 36 Way	No.	3	10		
3.05	JUNCTION BOX - 48 Way	No.	3	59		
3.06	JUNCTION BOX - 72 Way	No.	3	44		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
3.07	JUNCTION BOX FOR TEMP. TRANSMITTER	No.	3	202		
3.08	Miniature Junction Box - 6 way	No.	3	40		
3.09	FSSS local gun maintainance switchbox/ local push button box/ shear pin failure indication box/ proximiter housing JB/Emergency stop push buttons	No.	3	48		
<b>4.0</b>	<b>IMPULSE PIPE/ CU TUBE/CONDUIT(Including accessories and fittings like TEE, Valves, Nipples, Manifolds,SYPHON, Condensate Pots / Condensing Vessels/ Glycerine seal pot etc.)</b>					
4.01	CS Impulse Pipe upto 1/2" upto SCH 160	Mtr	4	2085		
4.02	Impulse Pipe SA106 GRB (D26.7 x 3.91 mm)	Mtr	4	130		
4.03	CS Impulse Pipe upto 3/4" NB upto SCH 80	Mtr	4	4900		
4.04	Impulse pipe ASTM A106 GR C 1" NB upto SCH 80	Mtr	4	300		
4.05	CS Impulse pipe,16x2.6 / S/L A106 GRB	Mtr	4	1540		
4.06	CS Pipe 2" SCH 40	Mtr	4	25		
4.07	CS Pipe 60.3 x 3.91 mm	Mtr	4	130		
4.08	AS/CS Impulse pipe P22 26.7 x3.91 mm	Mtr	4	100		
4.09	Cr-Al Impulse pipe 21.3 x3.73	Mtr	4	500		
4.10	GI Pipe (1/2" to 1") Heavy Grade	Mtr	4	2250		
4.11	Copper tube (Upto 1/2" OD)	Mtr	4	4700		
4.12	GI Pipe ( 1" to 1.5") Heavy Grade	Mtr	4	25		
4.13	Seamless CS tube 13.5 x 2.6 mm	Mtr	4	10		
4.14	CS Tube 88.9 x 4 mm	Mtr	4	40		
4.15	Seamless CS/AS tube 21.3x7.47/ 21.3 X 2.77/21.3X 2.3	Mtr	4	985		
4.16	SS tube 6 x 1.5 mm	Mtr	4	70		
4.17	SS tube 12.7 x 2.1 mm	Mtr	4	2000		
4.18	Flexible Pipe upto 1"	Mtrs.	4	50		
4.19	Flexible Pipe- 1" to 2"	Mtrs.	4	50		
<b>5.0</b>	<b>FABRICATION &amp; ERECTION</b>					
5.01	Structural steel for fabrication	MT	5	15		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1 (A)	Unit Rate (in Rs.) ( B )	Total Amount (in Rs.) (C=AxB)
<b>6.0</b>	<b>PANELS &amp; CABINETS</b>					
6.01	Suite of 1 Panel	No.	6	5		
6.02	Suite of two panel	Set	6	5		
6.03	Suite of three panel	Set	6	6		
6.04	Suite of four panel	Set	6	2		
6.05	Suite of five panel	Set	6	6		
6.06	Fuel Oil Pump control Panel	No.	6	1		
6.07	Acoustic Steam leak detection (STLD)system Panel (800X2315X800),200 Kg	No.	6	1		
6.08	Gravimetric Feeder Remote control panel(1400X2365X610,300 Kg) including local integral Panel(600X750X350,75 Kg).	No.	10	9		
6.09	240V AC CONTROL SUPPLY PANEL, 300 Kg	Set	6	1		
6.10	Furnace flame viewing system-remote panel(800X2100X600),500 Kg	No.	6	1		
6.11	AH Main control panel (1830X2186X611),363 Kg	No.	6	2		
6.12	AH LCS sector plate 1&2 drive panel (645X673X203),45 Kg	No.	6	8		
6.13	HWL-1&2 & MEFCV control vale panel (600X600X250),100 Kg	No.	6	1		
6.14	Profibus Remote I/o System Panel	No.	6	3		
6.15	LCS Motor Drive Panel	No.	6	4		
6.16	Foundation Fieldbus Panel for Boiler MTM	No.	6	5		
6.17	Accoustic Pyrometer Remote cabinet (1400X2365X800)	No.	6	1		
6.18	CARBON-IN-ASH ANALYSER CONTROL CABINET (1400X2365X610)	No.	6	1		
6.19	UPS AC POWER DIS CABINET -1 PDB01 (1 PANEL)	Nos	6	1		
6.20	UPS AC POWER DIS CABINET -2 PDB02 (1 PANEL)	Nos	6	1		
6.21	COAL FLOW ANALYSER CONTROL CABINET (1400X2365X610)	No.	6	2		
6.22	Soot blower MCC (21850X2525X1000), 14700.00 Kg	No.	6	1		
<b>7.00</b>	<b>Other Panels/Racks/Boards</b>					
7.01	Furnace Temperature Probe Starter Box, 25 Kg including all accessories	No.	6	2		
7.02	ERV controler box (508X610X279),10 Kg	No.	6	6		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1 (A)	Unit Rate (in Rs.) (B)	Total Amount (in Rs.) (C=AxB)
7.03	Scanner air fan DC motor starter, ((900x1000x375), 50 Kg	No.	6	1		
7.04	Furnace flame viewing system-camera control box(1220X1470X610),100 KG	No.	6	4		
7.05	Furnace flame viewing system-Zoom control box(400X300X210), 27.0 KG	No.	6	1		
7.06	240V UPS DISTRIBUTION BOARD (1400x2365x800)	No.	6	1		
7.07	240V UPS DISTRIBUTION BOARD (1200x800x600)	No.	6	4		
7.08	FTP Local Starter (650x1000x300), 25.0 Kg	No.	3	2		
7.09	HMI SYSTEM FOR SG MAIN comprising of :					
7.09.1	NETWORK PANEL DCS(SUITE:NWPD03)	Nos	6	1		
7.09.2	POWER DISTRIBUTION PANEL (SUITE:PDNL01)	Nos	6	1		
7.09.3	OWS	Nos	6	2		
7.09.4	LVS work station	Nos	6	3		
7.09.5	Max Link Station	Nos	6	2		
7.09.6	Storian Station	Nos	6	2		
7.09.7	EWS	Nos	6	2		
7.09.8	Colour Laserjet Printer (A4 size)	Nos	6	1		
7.10	HMI SYSTEM FOR FOPH comprising of :					
7.10.1	NETWORK ENCLOSURE FOPH (SUITE:NWEF01)	Nos	6	1		
7.10.2	OWS	Nos	6	2		
7.10.3	EWS	Nos	6	2		
7.10.4	Colour Laserjet Printer (A4 size)	Nos	6	1		
8.00	<b>Workstation</b>					
8.01	Max Storian /Max OWS/Max EWS(1 SET COMPRISES OF 1 NO. CPU, KEYBOARD,PRINTER, ACCESSORIES AND 1 NO. MONITOR)	Set	9	13		
8.02	Steam leak detection (STLD) system PC station	No.	9	1		
8.03	Accoustic Pyrometer PC station	No.	9	1		
<b>9.0</b>	<b>LIE / LIR / RACK / ENCLOSURE</b>					
9.01	LIRs/RACK-4RX-WITH ACCESSORIES/RACK-6RX- WITH ACCESSORIES/LGB Assembly	No	6	71		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
9.02	LIEs/ENCLOSURE-4EX WITH ACCESSORIES	No	6	22		
<b>10.0</b>	<b>FIELD INSTRUMENTS</b>					
10.01	Pressure Gauge / Diff. Pressure Gauge /Differential Pressure Indicator (controller)/Pressure indicator	No.	7	325		
10.02	Temp Gauges/ Temperature indicator/Temp. element (capillary as well as non capillary type) with/without thermowell	No.	7	530		
10.03	Level Gauges/Level indicator	No.	7	29		
10.04	Oxygen Analyser system (Low Temperature)	set	7	8		
10.05	Bypass Rotameter/Flow meter (orifice assy)/Mass flow meter	No.	7	13		
10.06	Diff. Pr. Switches/Pr. Switches/DP indicating switch	No.	7	43		
10.07	Electronics Transmitters (Pressure/DP/Level/Flow/Temp Transmitters / Single i/p Din Rail Mounted Temperature Transmitter (Sensor type-RTD)/Single i/p Din Rail Mounted Temperature Transmitter (Sensor type-TC K) /Dual i/p Temperature Transmitter/Vibration Transmitter/Analyser Transmitter	No	7	2037		
10.08	Ultrasonic type level Transmitters/Level Transmitter (displacer type)/Electronic Level Transmitter (with amplifier etc), capacitance or Conductivity type / Guided Wave Radar (GWR) Transmitter	No	7	36		
10.09	Limit switch/Limit switch for shear pin failure indication box/Fire protection Switch in IP65 Box	No.	7	62		
10.10	Position transmitter	No.	7	42		
10.11	Temperature switch/Thermostat	No.	7	42		
10.12	Flow switch (Mechanical/Electronic)	No.	7	20		
10.13	Gas Anlayser	No.	7	2		
10.14	MOISTURE MEASURING SYSTEM including local cabinet, sensor, display unit, dew point monitor and cable.	Set	7	1		
10.15	Mini UPS for computers	Nos	6	19		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
10.16	Computer Furniture(Computer tables , Printer tables & Chairs) - Scope includes support/assistance to BHEL vendor for furniture assembling					
10.16.1	Computer Table/Printer Table/Computer Chair	No	7	15		
10.17	Graphical Interface Units(GIU)	Set	7	4		
10.18	Color Laser Printer A4 /A3	No.	7	9		
10.19	Electronic Level Switch (with amplifier etc), Float type Level switch,capacitance or Conductivity type Level Switch for CRH Drain Pot (Each set consisting of 4 probes, 4 inserts, two electronic cabinet and cables (15 mtr. Per probe))	Set	7	64		
10.20	Flame Scanner Head Assembly including cabling upto JB	No.	7	40		
10.21	Flame scanner amplifier	No.	7	10		
10.22	ASLD sensor & sonic tube assly.	No.	7	30		
10.23	Field amplifier module with box	No.	7	30		
10.24	Air filter regulator for SADC system/mill system	No.	7	17		
10.25	Electro-Pneumatic (E/P) Converter/ I/P Transducer	No.	7	58		
10.26	Coal Flow monitor including sensor, amplifier and pre-fab cables.	No.	9	9		
10.27	PURGE METER	No.	7	18		
10.28	Online Coal Flow Measurement system (Scope includes sensor installation, cable laying and termination, assisting vendor personnel during commissioning. There will be 4-6 sensors per pipe. Total 4 pipes per Mill. 9 Mills per boiler)	Set	9	1		
10.29	Online carbon in ash measurement system	No	9	1		
10.30	RTD (PRT, CRT, MINIATURE RTD, ETC.)/DUPLEX RTD(2WIRE//3 WIRE/4WIRE) with/without Thermowell.	No.	7	1005		
10.31	MTM Thermocouples(EACH OF 8M, 10M,12M,14M,16M, 18M, 20M, 22M, 24M, 26M,28M, 30M-LENGTH) with/without Thermowell inclusive of welding of Pads & Clamps	No.	7	745		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
10.32	THERMOCOUPLE (K type/ T type / R type / J type, with or without integrated metallic extension cable)/Thermocouple DRA 300/ Type A/Type-B/Type-C/TypeD /Duplex/Chromel Alumel Thermocouple/Thermocouple with/without Thermowell	No.	7	1065		
10.33	Coal Bunker level monitoring System (Consisting of Strain sensor & JB- 27 nos, Controller Model DCL- 9 nos, Bar graph display model- 9 nos, 4-20 mm Current Splitter - 9 Nos, RITTAL panel for Bar Graph Display & controller DCL- 100 & Splitter - 1 no each and other accessory items)	Set	9	1		
10.34	IP converter including AFR Assembly	No	6	26		
10.35	Weight Transducer (Load Cells)	No.	7	24		
10.36	Electrical actuator Local Control Box, 35.0 Kg	No.	3	7		
10.37	Cooling Vessels	No.	7	6		
<b>11.0</b>	<b>CALIBRATION/ COMISSIONING (Erection excluded)</b>					
11.01	Oil Purification panel Removal, Calibration and erection of oil Purification skid mounted instruments.	Set	10	1		
11.02	Burner tilt Power cylinder	No.	10	12		
11.03	Ignitor retractor assembly, flexible spark rod, spark tip, flexible cable assembly, S.S. house (1 mtr long, 6.35 mm ID)	No.	10	16		
11.04	Power cylinder for scoop	No.	10	5		
11.05	Power cylinder (on-off type)	No.	10	55		
11.06	Power cylinder (regulating type)	No.	10	27		
11.07	Solenoid Valve(2 WAY/3 WAY/4 WAY)	No.	10	270		
11.08	HPBP Pr. & temp. control valve	No.	10	4		
11.09	HPBP spray block valve	No.	10	1		
11.1	LP Bypass spray Control valve with Feedback Transmitter	No.	10	2		
11.11	LP Bypass control rack (erection is excluded, rate to be quoted only for calibration and commissioning of instruments)	No.	10	1		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
11.12	ELECTRICAL ACTUATOR FOR FD FAN, PA FAN & ID FAN	No	10	7		
11.13	Gravimetric Feeder with local control panel & Associated Equipments with Feeder calibration.	Set	10	9		
11.14	Pneumatic Pressure Controller with accessories / for seal air dynavane.	No	10	1		
11.15	COLD AIR / HOT AIR DAMPER ACTUATOR A-J	No	10	18		
11.16	SCAPH / PAPH FG OUTLET DAMPER CTRL ACTUATOR	No	10	6		
11.17	Electrical regulating drives: (valve, damper, scoop)	No	10	51		
11.18	Pneumatic regulating drives: (valve, damper) including Burner Tilt	No	10	106		
11.19	Commissioning of Hydraulic Actuator	No	10	10		
11.2	Corner nozzle valve / Trip valves commissioning	No	10	48		
11.21	Open/Close type pneumatic gates / dampers / valves	No	10	118		
11.22	Only healthiness checking of embedded RTD/ T/C	No	10	122		
11.23	Limit switches	No	10	81		
11.24	Extraction NRV/ Spray water control valve	No	10	8		
11.25	Removal, calibration, re-mounting and commissioning of instruments for Skid. Each skid will have minimum of 05 no. instruments e.g. PG/PS/TG/DPI /DPS/TS/RPM meter with probe/LS/LG /FS/FI etc. Dressing of capillary & cables if any, repair of Cu-tube/impulse pipe, if any, changing of terminals of JB. if any, is also included.	No.	9	25		
<b>12.0</b>	<b>POWER CYLINDERS</b>					
12.01	Power Cylinder for ID/FD/PA fan inlet damper	No.	11	6		
12.02	Power Cylinder for Hot/Cold air damper	No.	10	18		
12.03	Mill Discharge Valve Power Cylinders (Set of four)	Set	10	9		
12.04	Power cylinder for SADC	No.	11	104		
<b>13.0</b>	<b>24V DC BATTERY CHARGERS,BATTERY</b>					

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1 (A)	Unit Rate (in Rs.) (B)	Total Amount (in Rs.) (C=AxB)
13.01	24 V DC Battery Charger for SG Main with each set comprising of 2 chargers (One set of Charger comprises of 2x100% FCBC, 1x100% DCDB & BHMS Common for Both Batteries)	Sets	6	1		
13.02	DCDB for SG Main for 24 VDC Battery Charger	Sets	6	1		
13.03	24 V DC Battery (2 x 19 KPH 575 P) with one common DRB - For SG Main Dim 345mm X 195mm X 405mm	Sets	6	1		
13.04	24V DC Charger for FOPH	Sets	6	1		
13.05	24 V DC Battery (19 KPH 85 P) for FOPH system	Sets	6	1		
13.06	24 V DC Battery (19 KPH 75 P) for Auxiliary Boiler System	Sets	6	1		
<b>14.0</b>	<b>PG TEST ITEMS :</b>					
14.01	1/2" Impulse Pipe	mtr.	4	800		
14.02	Compensating Cable (2C, Core size upto 2.5 sqmm) laying & termination	mtr.	2	1350		
14.03	2C, Core size upto 2.5 sqmm cable laying & termination	mtr.	2	3000		
14.04	4C, Core size upto 2.5 sqmm cable laying & termination	mtr.	2	3000		
14.05	Pre-fab cable from Data logger to computer	mtr.	2	50		
14.06	Junction Box	No.	3	80		
14.07	Thermocouple	No.	7	45		
14.08	Pr. / vacuum / DP Transmitters	No.	7	70		
14.09	Data logger	No.	7	1		
14.1	Manometer	No.	7	10		
14.11	Thermowell	No.	7	100		
14.12	PRT (Pt. Resistance thermometer)	No.	7	90		
14.13	Barometer	No.	7	1		
14.14	Power meter / transducer	No.	7	10		
<b>15.0</b>	Installation of Electronic earth pit as per the instruction of BHEL engineer to the tune of 0.5 ohm fixing rod ,riser with necessary ingredients.	No.	5	2		
<b>TOTAL</b>						

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
<b>1.00</b>	<b>CABLE TRAYS (GI Perforated Type/Ladder type with/without cover) (complete with all fixing accessories as applicable as per drawing , including site modifications required for all types of bends / turns or any profile, as required to suit site layout)</b>								
1.01	Cable sub-tray - 2"(50mm)	Mtr	1	1300	1300	1300	3900		
1.02	Cable sub-tray - 4"(100mm)	Mtr	1	2600	2600	2600	7800		
1.03	Cable sub-tray - 6"(150mm)	Mtr	1	600	600	600	1800		
<b>2.00</b>	<b>JUNCTION BOX (ELECTRICAL/FRP, MS/FIBRE/GI, Cold Junction Compensation Box ETC.) (with or without canopy erection)</b>								
2.01	24 WAY JUNCTION BOX	No	3	40	40	40	120		
2.02	36 WAY JUNCTION BOX	No	3	25	25	25	75		
2.03	48 WAY JUNCTION BOX	No	3	95	95	95	285		
2.04	64 WAY JUNCTION BOX	No	3	12	12	12	36		
2.05	72 WAY JUNCTION BOX	No	3	5	5	5	15		
2.06	96 WAY JUNCTION BOX	No	3	23	23	23	69		
2.07	FMU-1024 Ways	No	3	9	-	-	9		
2.08	FMU-512 Ways	No	3	7	-	-	7		
2.09	128 WAY JUNCTION BOX	No	3	13	12	12	37		
<b>3.00</b>	<b>IMPULSE PIPE/ CU TUBE /CONDUIT (Including accessories and fittings like TEE, Valves, Nipples, Manifolds, SYPHON, Condensate Pots/Glycerine seal pot etc.)</b>								
3.01	A106 Gr.C 1/2" NB Sch 160	Mtr	4	1375	1375	1375	4125		
3.02	A335 P22 1/2" NB upto Sch 160	Mtr	4	1300	1300	1300	3900		
3.03	A106 Gr.C 1/2" NB Sch 80	Mtr	4	4000	4000	4000	12000		
3.04	A106 Gr.C 3/4" NB Sch 80	Mtr	4	3700	3700	3700	11100		
3.05	A335 P22 3/4" NB Sch 80	Mtr	4	750	750	750	2250		
3.06	A213 TP316H SIZE: 3/4" NB SCH 160	Mtr	4	700	700	700	2100		

VOLUME-III

PRICE SCHEDULE, REV-2

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SCH-4 STATION C AND I  
TENDER NO. PSER:SCT:NBN-I1764:16

SIGNATURE WITH SEAL  
OF BIDDER

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
3.07	A213 TP316H SIZE:3/4" NB SCH80	Mtr	4	800	800	800	2400		
3.08	A335 P91 1/2" NB Sch XXS	Mtr	4	950	950	950	2850		
3.09	GI/PVC Conduit upto 1" (flexible / rigid/lead coated/zinc coated)	Mtr	4	11,645	11,645	11,645	34935		
3.10	GI / PVC Conduit above 2" (flexible / rigid/lead coated/zinc coated)	Mtr	4	1300	1300	1300	3900		
<b>4.00</b>	<b>PANELS &amp; SYSTEMS AND PLANT MONITORING SYSTEM</b>								
4.01	Suite of one panel	Nos	6	3	3	3	9		
4.02	Suite of two panel	Nos	6	9	9	9	27		
4.03	Suite of three panel	Nos	6	15	15	15	45		
4.04	HART Management System Panel	Nos	6	1	1	1	3		
4.05	Electrical Control Panel	Nos	6	1	1	1	3		
4.06	LVS of 67" with its control station and controller	Nos	9	6	6	6	18		
<b>5.00</b>	<b>HMI FOR UNIT DDCMIS System</b>								
5.01	Network Panel DCS-A(DC)-NWPD01/DCS-B(DC)-NWPD02/HMI(AC)-NWPA03	Nos	6	3	3	3	9		
5.02	POWER DIST. PANEL-PDPH01	Nos	6	1	1	1	3		
5.03	Information Work Station ( 1 SET CONSISTING OF CPU, PRINTER, ACCESSORIES,MONITOR ETC)	No	9	2	2	2	6		
5.04	Max Link Station	No	9	2	2	2	6		
5.05	Colour Laserjet Printer - A3 Size	No	9	1	-	-	1		
5.06	OWS on UCD ( 1 SET CONSISTING OF CPU, PRINTER, ACCESSORIES AND MONITOR)	No	9	3	3	3	9		
5.07	OWS on UID ( 1 SET CONSISTING OF CPU, PRINTER, ACCESSORIES AND MONITOR)	No	9	1	1	1	3		
5.08	Workstation for LVS	No	9	3	3	3	9		
5.09	EWS( 1 SET CONSISTING OF CPU, PRINTER, ACCESSORIES,MONITOR ETC)	No	9	1	1	1	3		
5.1	PC Station in Prog. Room	No	9	1	1	1	3		
5.11	PC Station in CER	No	9	2	2	2	6		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
5.12	Colour Laserjet Printer - A4 Size	No	9	4	4	4	12		
5.13	Line Matrix Printer-	No	9	1	1	1	3		
5.14	Graphical Interface Unit	Nos	9	23	-	-	23		
6.00	<b>FIELD INSTRUMENTS (ERECTION RATE TO BE QUOTED WITH OR WITHOUT CANOPY ERECTION)</b>								
6.01	Conductivity Analysers (Specific & Cation)	No	7	15	15	15	45		
6.02	pH Analyser	No	7	7	7	7	21		
6.03	Dissolved oxygen Analyser	No	7	3	3	3	9		
6.04	Hydrazine Analyser	No	7	2	2	2	6		
6.05	Silica Analyser	No	7	2	2	2	6		
6.06	Sodium Analyser	No	7	2	2	2	6		
6.07	Turbidity Analyser	No	7	1	1	1	3		
6.08	Conductivity analyser withdrawable type	No	7	4	4	4	12		
6.09	Sample Conditioning Panel (Wet Panel)	No	7	1	1	1	3		
6.1	Analyser Panel (Dry Panel)	No	7	1	1	1	3		
6.11	Primary Cooler Rack-Pipinig & Accessories	No	7	1	1	1	3		
6.12	Chiller (Common for 3 units)	No	7	3	-	-	3		
6.13	Sensor/Piezo velocity transducer/ mounting brackets/pads/including driver and extension cable for VMS	Nos	7	147	147	147	441		
6.14	Junction box for VMS	Nos	3	52	52	52	156		
6.15	VMS Panel including rack & other accessories.(appx. Size 800mm x 800mm x 2400mm)	Nos	9	11	11	11	33		
6.16	KVM Switch/Matrix KVM Switch/Switch	No	9	7	7	7	21		
6.17	High temp/Low temp - O2 Analyzers- (at SH Zone, Eco O/L, APH O/L, IDFAN I/L)	Nos	7	16	16	16	48		
6.18	SOX/NOX, CO & CO2 Analyzer	Nos	7	3	3	3	9		
6.19	Dust / Opacity Analyser	Nos	7	1	1	1	3		
6.2	Mercury Analyzers (at Chimney)	Nos	7	1	1	1	3		
6.21	Flow Meter-Ultrasonic Time Transit Type	Nos	7	1	1	1	3		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
6.22	Level Switch Conductivity Type	Nos	7	1	1	1	3		
6.23	Impact Head Type flow element with flow Transmitters	Nos	7	2	2	2	6		
6.24	Pressure Transmitters (Unit-1+Common)/Differential Pressure Transmitters	No	7	404	399	399	1202		
6.25	Guided wave radar type level Transmitters	No	7	15	15	15	45		
7.00	<b>OTHER PANELS /RACKS</b>								
7.01	<b>Local Instrument Enclosures / Racks (LIE / LIR) - Details Below</b>								
7.01.01	LIE TYPE A/TYPE B/TYPE C	No	6	42	42	42	126		
7.01.02	LIR TYPE A/TYPE B/TYPE C	No	6	39	39	39	117		
7.01.03	Master Clock & associated hardware and accessories (Common for 3 units)	Set	7	1	-	-	1		
8.00	<b>UPS/BATTERY</b>								
8.01	140 KVA UPS System with ACDB	Set	6	1	1	1	3		
8.02	Battery for UPS with all accessories	Set	6	1	1	1	3		
8.03	25KVA UPS System with ACDB for CHP	Set	6	1	-	-	1		
8.04	Battery for UPS with all accessories for CHP area	Set	6	1	-	-	1		
8.05	15KVA UPS System with ACDB for water system	Set	6	1	-	-	1		
8.06	Battery for UPS with all accessories for Water system Area	Set	6	1	-	-	1		
8.07	10KVA UPS System with ACDB for AHP Area.	Set	6	1	-	-	1		
8.08	Battery for UPS with all accessories for AHP Area	Set	6	1	-	-	1		
9.00	<b>24V DC CHARGER &amp; BATTERIES</b>								
9.01	24V DC Charger Unit (1000A/275A)	Set	6	12	-	-	12		
9.02	24 V DC Battery Unit	Set	6	6	-	-	6		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
9.03	24 V DC Charger for offsite Unit like Ash Handling/Coal Handling/Water System/Stand Alone system etc. (175A/125A/350A/176A/126A/35A)	Set	6	34	-	-	34		
9.04	24 V DC Battery for Off Site	Set	6	24	-	-	24		
9.05	PDBs for UPS power supply distribution	Nos	6	7	7	7	21		
<b>10.00</b>	<b>STAND ALONE DDCMIS System</b>								
10.01	Suite of two panel	Nos	6	16	-	-	16		
10.02	Suite of three panel	Nos	6	4	-	-	4		
<b>10.1</b>	<b>STAND ALONE HMI System</b>								
10.1.01	MaxOperator workstation (Operator Work Station)/MaxStorian station (Information Work Station)/Engineer work station (Programmer cum Documentation station)	No	9	4	-	-	4		
10.1.02	Colour Laserjet Printer - A4 Size	No	9	1	-	-	1		
10.1.03	Network Panel NWPC01	No	9	1	-	-	1		
10.1.04	Network Enclosures NWEN01	No	9	1	-	-	1		
<b>11.00</b>	<b>WATER DDCMIS System</b>								
<b>11.01</b>	DDCMIS cabinets Approx Size: 800mm (W) X 800 mm(D) X 2250mm(H)	No	6	50	-	-	50		
<b>11.02</b>	<b>WATER DDCMIS HMI System</b>								
11.02.01	MaxOperator workstation (Operator Work Station)	No	9	6	-	-	6		
11.02.02	MaxStorian station (Information Work Station)	No	9	1	-	-	1		
11.02.03	Engineer work station (Programmer cum Documentation station)	No	9	1	-	-	1		
11.02.04	MaxOperator workstation for LVS	No	9	3	-	-	3		
11.02.05	Colour Laserjet Printer - A4 Size	No	9	1	-	-	1		
11.02.06	Network Panel NWPC02	No	6	1	-	-	1		
<b>12.00</b>	<b>Ash Handling Plant DDCMIS System</b>								

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
12.01	DDCMIS cabinets Approx Size: 800mm (W) X 800 mm(D) X 2250mm(H)	No	6	95	-	-	95		
12.02	<b>Ash Handling Plant HMI System</b>								
12.02.01	MaxOperator workstation (Operator Work Station)	No	9	6	-	-	6		
12.02.02	MaxStorian station (Information Work Station)	No	9	1	-	-	1		
12.02.03	Engineer work station (Programmer cum Documentation station)	No	9	1	-	-	1		
12.02.04	MaxOperator workstation for LVS	No	9	3	-	-	3		
12.02.05	Colour Laserjet Printer - A4 Size	No	9	1	-	-	1		
12.02.06	Network Panel NWPC02	No	6	1	-	-	1		
13.00	<b>Coal Handling Plant DDCMIS System</b>				-	-	0		
13.01	Suite of one panel (CTE41 & CTE42)	Nos	6	2	-	-	2		
13.02	Suite of two panel	Nos	6	6	-	-	6		
13.03	Suite of three panel	Nos	6	10	-	-	10		
13.1	<b>Coal Handling Plant HMI System</b>								
13.1.01	MaxOperator workstation	No	9	2	-	-	2		
13.1.02	MaxStorian station (Information Work Station)	No	9	1	-	-	1		
13.1.03	Engineer work station (Programmer cum Documentation station)	No	9	1	-	-	1		
13.1.04	MaxOperator Workstation for LVS	No	9	2	-	-	2		
13.1.05	Colour Laserjet Printer - A4 Size	No	9	1	-	-	1		
13.1.06	Colour Laserjet Printer - A3 Size	No	9	1	-	-	1		
13.1.07	Line Matrix Printer	No	9	1	-	-	1		
13.1.08	Network Panel NWPL01	No	6	1	-	-	1		
14.00	<b>MakeUp water DDCIMS System -</b>								
14.01	DDCMIS cabinets Approx Size: 800mm (W) X 800 mm(D) X 2250mm(H)	No	6	5	-	-	5		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
<b>14.1</b>	<b>MakeUp water HMI System</b>								
14.1.01	MaxStorian station (Information Work Station):	No	9	2	-	-	2		
14.1.02	Colour Laserjet Printer - A4 Size	No	9	1	-	-	1		
<b>15.00</b>	<b>Station LAN System</b>								
15.01	Shift In-charge Workstation	Nos	9	1	-	-	1		
15.02	Test Server:	Nos	9	1	-	-	1		
15.03	NMS Server:	Nos	9	1	-	-	1		
15.04	Station LAN Server:	Nos	9	2	-	-	2		
15.05	PC Station:	Nos	9	1	-	-	1		
15.06	Gateway PC/Terminal Server:	Nos	9	1	-	-	1		
15.07	Color LaserJet Printer - A4 Size	Nos	9	1	-	-	1		
15.08	Network switches a.) AC Layer 3 core switch: 2 Nos b.) AC layer 2 switch : 2 Nos c.) AC Layer 3 switch: 2 Nos d.) AC layer 2 switch: 8 Nos	Nos	9	14	-	-	14		
15.09	Network Panel & Enclosure	Nos	9	5	-	-	5		
15.1	N/W Panel Station LAN-AC-NWPS01	Nos	9	1	-	-	1		
15.11	N/W Panel Station LAN-AC-NWPS02	Nos	9	1	-	-	1		
15.12	Network Enclosure for PC Station --NWEN04/SLAN/SWAS/ --NWEN05/SLAN/SRVC --NWEN06/SLAN/LOC1 --NWEN07/SLAN/LOC2	Nos	9	4	-	-	4		
15.13	Power Distribution Board (Common for 3 units)	Nos	3	1	-	-	1		
<b>16.00</b>	<b>Control Desk(common for 3 units)</b>								
16.01	Control Desk for Unit/UID/ including UCD drawout & mosaic items for single unit/combined unit/AHP/Water System/ CHP etc	Nos	6	8	-	-	8		

<b>VOLUME-III</b>									
<b>PRICE SCHEDULE, REV-2</b>									
<b>PACKAGE-1 Erection, testing &amp; commissioning of electrical and C&amp;I system of SG (Unit # 1) and complete station C&amp;I system for Unit# 1, 2 &amp; 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.</b>									
<b>TENDER NO - PSER:SCT:NBN-I1764:16</b>									
<b>SCH-4 PART- C STATION C&amp;I SYSTEM (UNIT#1,2,3)</b>									
SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
16.02	Computer Furnitures Computer Table - 23 Nos Computer Chair - 104 Nos Printer Table - 10 Nos Scope includes support/assistance to BHEL vendor for furniture assembling	Set	10	1	-	-	1		
16.03	WORKSTATION FURNITURE - 52 Nos Printer Rack (For 3 A4 Printers) - 10 Nos PC Rack ( for 4 PC's) - 21 Nos Server Rack For 2 PCs & miniUPS) - 47 Nos Scope includes support/assistance to BHEL vendor for furniture assembling	Set	10	1	-	-	1		
16.05	Mini UPS	Nos	6	49	-	-	49		
<b>17.00</b>	<b>Ambient air monitoring system (Common for 3 Units)</b>								
17.01	Ambient air quality monitoring system (Imported Portion - Analysers)	Set	9	1	-	-	1		
17.02	Ambient air quality monitoring system (Indigenous Portion - Sample Handling System)	Set	9	1	-	-	1		
17.03	Mercury Analyzers for AAQMS	Set	7	1	-	-	1		
17.04	Wireless system for AAQMS	Set	7	1	-	-	1		
<b>18.00</b>	<b>CABLING -Common for 3 units- POWER /CONTROL / SIGNAL cable (Armoured/unarmoured, Individual Shielded/overall shielded/unshielded/FRLS, Cu/Al)</b>								
18.01	2PX0.5 mm2(Type G )	Mtr	2	4500	-	-	4500		
18.02	4PX0.5 mm2(Type G )	Mtr	2	4000	-	-	4000		
18.03	2Triad X0.5 mm2(Type F )	Mtr	2	12660	-	-	12660		
18.04	4PX0.5 mm2(Type F )	Mtr	2	30360	-	-	30360		
18.05	3PX0.5 mm2(Type F )	Mtr	2	12000	-	-	12000		
18.06	10PX0.5 mm2(Type F )	Mtr	2	1000	-	-	1000		
18.07	24PX0.5 mm2(Type F )	Mtr	2	2000	-	-	2000		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
18.08	2PX0.75 mm2(Type F )	Mtr	2	2000	-	-	2000		
18.09	3CX1.5 mm2 Un armoured	Mtr	2	3000	-	-	3000		
18.10	5CX1.5 mm2 armoured	Mtr	2	10000	-	-	10000		
18.11	2C x 2.5 mm2, Annealed Bare Copper, PVC Type A insltn, PVC ST1 FRLS inner and outer sheathed, 1.1KV, un-armoured	Mtr	2	12000	-	-	12000		
19.00	CCTV System	Set	9	1	-	-	1		
	Total								
			<b>TOTAL =</b>						

<b>VOLUME-III PRICE SCHEDULE, REV-2</b>	
<b>PACKAGE-1 Erection, testing &amp; commissioning of electrical and C&amp;I system of SG (Unit # 1) and complete station C&amp;I system for Unit# 1, 2 &amp; 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.</b>	
<b>TENDER NO - PSER:SCT:NBN-I1764:16</b>	
<b>PREAMBLE</b>	
<b>SL NO</b>	<b>DESCRIPTION</b>
1.0	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully before filling in rates for various items. Clauses under this preamble shall be read in conjunction with Volume-1A,IB, 1C,1D, 1E , 1F,II and other tender sections (as applicable as per NIT) and shall have precedence over any contrary statement mentioned any where in this document.The tenderer shall sign & stamp all the pages of the tender document as a token of their acceptance.Submission of unfilled formats with sign & stamp shall be construed as acceptance of the contents of the same.
2.0	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions. Drawings enclosed with the tender are only preliminary and for guidance/tender purposes giving some idea of the work involved. The work is to be executed as per terms & conditions of the tender and actual drawings/documents, which shall be furnished during execution.
3.0	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
4.0	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc. equipment, strengthening of roads/culverts/bridges etc. including arranging all clearances etc. required for carrying out different activities & tests, materials, levies, taxes(except service tax), transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the complete tender document and this schedule.
5.0	The quantities of the various items mentioned in this schedule of items are approximate, based on very preliminary information and may vary to any extent or be deleted altogether. The quoted rates of each item will remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in the total value of work executed under any part of this contract including extra items, if any but excluding any price variation remains, within fifteen percent ( $\pm 15\%$ ) of the awarded price as per LOI .
6.0	Prior written approval of BHEL shall be sought by the contractor in case quantity variation of any item crosses +50% (plus fifty percent) limit during execution and approval to be obtained before execution of further quantity for this item.
7.0	In case Sealed /Paper Price Bids are opened for finalisation of the tender, for any Item Rate/BOQ based service contract, possibility of variation of quantity/ addition/deletion of items can not be ruled out. Under such circumstances, after execution of work, if it is observed that standing as L-1 is changed based on actual quantity executed, the bidder shall give suitable rebate to maintain your standing as L-1. Since this aspect can be assessed at the end of execution, necessary adjustment will be effected at the end of execution in final bill.This condition shall not be applicable where the tender is finalised through Reverse Auction.
8.0	BHEL reserve the right to rationalize the rates, quoted by L-1 bidder against unit rate items and/ or other optional items with respect to item-wise lowest rates (amongst the participating bidders), before placement of order.The rates of unit rate/optional items shall remain valid till execution of the order, if the job/work is awarded to the bidder.
9.0	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing , clearing of old structures and leveling etc. including fixing of grid pillars, benchmarks etc. required for commencement of site activities. No separate payment will be made towards the same.However, if separate rate for such item is available in the rate schedule, the same shall be considered.
10.0	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
11.0	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted as per BHEL approved payment schedule/billing break-up.
12.0	The tenderer shall be deemed to have visited site and made himself aware of all the site conditions, studied the specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site before submission of his bid/offer.No claim whatsoever due to lack of knowledge of site conditions shall be entertained after award of the work.

<b>VOLUME-III PRICE SCHEDULE, REV-2</b>	
<b>PACKAGE-1 Erection, testing &amp; commissioning of electrical and C&amp;I system of SG (Unit # 1) and complete station C&amp;I system for Unit# 1, 2 &amp; 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.</b>	
<b>TENDER NO - PSER:SCT:NBN-I1764:16</b>	
<b>PREAMBLE</b>	
13.0	No splitting of the job is envisaged unless the same is specifically indicated in the TCC/Vol-1F. Decision of BHEL in this regard shall be final and binding to the bidders.
14.0	Bidders are not allowed to alter the Price Schedule format including item description, quantity etc. and the offer is liable for rejection if the bidders submit their prices in Price Schedules modified by them. BHEL reserves the right to reject the offers of bidders who submit offers in Price Formats which are modified/ altered by them. Also putting any comments instead of rates/price in the designated column of the rate schedule shall make the offer liable for rejection.
15.0	Bidders to note that for Civil &/Structural packages, against a particular item against a ST No. appearing in more than one schedule of the BOQ, same rate must be quoted in all schedules for that particular items with same descriptions. If by error, different rates are quoted in different schedules for same ST No. (i.e. item with same description), then the higher of the rates shall be considered for evaluation but awarding shall be done with the lower rate, if the bidder becomes L-1. The same modality shall be applicable for other item rate service contracts where item with same description is repeated in different schedules.
16.0	For Lumpsum Service Contract : The items/components indicated in the tender is indicative and may vary to any extent. No compensation shall be payable in case of any variation in the items/components listed in the bill of quantities if the executed weight remains within the variation limit. However, in case of deletion of any item or addition of new items over and above the items listed or variation of existing quantity beyond variation limit specified, adjustment (i.e. Payment or recovery as the case may be ) shall be done on pro-rata basis based on the Rate per MT worked out from the quoted lump-sum Price and the total weight of components listed /indicated in price schedule plus 15% weight variation limit.
17.0	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.
18.0	In case of tender for Civil and/or Structural works, if the Non-schedule items are not quoted by the bidder, it will be treated at par with rate of corresponding item of CPWD/PWD/DSR schedule as prescribed in the tender/BOQ cum Rate Schedule. PVC/escalation is not payable for these Non-scheduled items.
19.0	No interest, whatsoever, shall be payable by BHEL on the security deposit, any bank guarantee submitted or any amount due to successful bidder/contractor. No idling charge whatsoever (either for labour or any other resources ) is payable by BHEL for any reason whatsoever.
20.0	Size and weights of various items are mentioned in the attached BOQ cum rate/price schedule for reference purpose only & these shall not be taken into consideration for quoting/calculating amount in the rate schedule. These shall be utilised as per relevant sections of tender. Bidders shall quote for each item in the rate column, taking unit as mentioned in the quantity column. Rates shall be filled in both figures and words. Amount shall be calculated based upon these rates multiplied by the mentioned quantity for the respective items.
21.0	Bidder's GRAND Total price will be shall be considered for evaluation unless stated otherwise.
22.0	In case of BOP packages, if Bidder does not quote/indicate the price for freight charges against indicated rate schedule, the same shall be considered as 2% of basic price and adjusted with the total quoted price against each item keeping the total quoted price unaltered.

<b>VOLUME-III</b>		
<b>PRICE SCHEDULE, REV-2</b>		
<b>PACKAGE-1 Erection, testing &amp; commissioning of electrical and C&amp;I system of SG (Unit # 1) and complete station C&amp;I system for Unit# 1, 2 &amp; 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.</b>		
<b>TENDER NO - PSER:SCT:NBN-I1764:16</b>		
<b>SCH-1 MAIN PRICE</b>		
<b>SL NO</b>	<b>ITEM/SCHEDULE</b>	<b>TOTAL AMOUNT ( )</b>
<b>1</b>	TOTAL PRICE AS PER PART-A FOR ELECTRICAL JOB OF SG SYSTEM, UNIT # 1	
<b>2</b>	TOTAL PRICE AS PER PART-B FOR C&I JOB OF SG SYSTEM, UNIT # 1	
<b>3</b>	TOTAL PRICE AS PER PART-C FOR STATION C&I SYSTEM OF 3X660 MW NPGCL-NABINAGAR PROJECT	
<b>GRAND TOTAL (SL. NO.1+ SL.NO.2+ SL. NO.3)</b>		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-11764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

SL NO	EQUIPMENT DESCRIPTION	BILLING SCH. REF. NO.	QTY FOR UNIT # 1	UNIT	UNIT RATE (Rs)	AMOUNT (Rs)
(1)	(2)	(3)	(4)	(5)	(6)	(7) =(6)x(4)
1.0	AUXILIARY CONTROL PANEL (DOUBLE FRONT, DRAW OUT TYPE) AND DUMMY PANEL (12450 mm x 1300 mm x 2525 mm) 9100 Kg / PANEL	6	6	NO		
2.0	ELECTRONIC CONTROL PANEL- 95 KV,800mA (600 mm x 550 mm x 2000 mm) 250 Kg / PALNEL	6	108	NO		
3.0	HIGH VOLTAGE TRANSFORMER RECTIFIER - 95 KV, 800 mA (2040 mm x 1550 mm x 1960 mm) 1880 Kg / HVR (COMMISSIONING INCLUDING OIL FILTRATION)	6	108	NO		
4.0	DISCONNECTING SWITCH ASSY. VAR.05 (1200 mm x 1100 mm x 750 mm) 200 kg (COMMISSIONING ONLY)	7	108	NO		
5.0	GEARED MOTOR FOR COLLECTING ELECTRODE RAPPING 0.5 HP,1.1 RPM. 220 KG / Motor (COMMISSIONING ONLY)	7	108	NO		
6.0	GEARED MOTOR FOR GD SCREEN RAPPING MOTOR 0.5 HP, 1.1 RPM. 220 KG / Motor (COMMISSIONING ONLY)	7	12	NO		
7.0	GEARED MOTOR FOR EMITTING ELECTRODE RAPPING MOTOR 0.5 HP,2.5 RPM. 109 KG / Motor (COMMISSIONING ONLY)	7	108	NO		
8.0	HEATING ELEMENTS FOR HOPPERS (PANEL TYPE HOPPER HEATER) 107 KG / HE SET (COMMISSIONING ONLY)	7	108	SET		
9.0	HEATING ELEMENTS FOR SUPPORT INSULATOR HEATER. 2.5 KG/HE (COMMISSIONING ONLY)	7	432	NO		
10.0	HEATING ELEMENTS FOR SHAFT INSULATOR HEATERS, 3.0 KG / HE	7	108	NO		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

11.0	THERMOSTAT FOR HOPPER (35 mm x 100 mm x 100 mm, 0.5 KG / TH)	7	108	NO		
12.0	THERMOSTAT FOR SUPPORT INSULATOR (35 mm x 100 mm x 100 mm, 0.5 KG/TH)	7	12	NO		
13.0	LOCAL START STOP PUSH BUTTON FOR RAPPING MOTOR (180 mm x 100 mm x 250 mm, 3.0 KG/PB)	3	228	NO		
14.0	LOCAL CONTROL BOX FOR PANEL TYPE HOPPER HEATER (800 mm x 150 mm x 300 mm, 55.0 Kg/JB)	3	108	NO		
15.0	LOCAL FRP JUNCTION BOX FOR ASH LEVEL INDICATOR (LOW & HIGH)- VAR-C2, FOR NTPC USE. 12 KG / JB	3	32	NO		
16.0	FRP JUNCTION BOX FOR SUPPORT INSULATOR HEATERS (450 mm x 150 mm x 300 mm, 12.0 KG/JB)	3	24	NO		
17.0	FRP JUNCTION BOX FOR SHAFT INSULATOR HEATERS, (450 mm x 150 mm x 300 mm, 12 kg/JB)	3	12	NO		
18.0	ASH LEVEL INDICATOR (HIGH & LOW) (900 mm x 100 mm x 100 mm, 12.0 KG/ALI)	7	216	NO		
19.0	RAPPER CONTROL PANEL (1000 mm x 650 mm x 2050 mm, 250 kg)	6	6	NO		
20.0	STATCON PANEL (250 kg)	6	6	NO		
21.0	ELECTRICALLY OPERATED HOIST 3T (EOH) (1300 kg/EOH) (COMMISSIONING ONLY)	7	6	NO		
22.0	<b>LT POWER CABLES (ARMOURED / UN-ARMOURED)-LAYING</b>					
22.1	2C-120 MM <sup>2</sup> AL	2	84000	MTR		
22.2	3C-70 MM <sup>2</sup> AL	2	5400	MTR		
22.3	3C-16 MM <sup>2</sup> AL	2	44000	MTR		
22.4	3C-2.5 MM <sup>2</sup> CU	2	87000	MTR		
22.5	2C-2.5 MM <sup>2</sup> CU	2	12000	MTR		
23.0	<b>DELETED</b>					
24.0	<b>CABLE TERMINATION</b>					
24.1	2C-120 MM <sup>2</sup> AL	2	80	NO		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-11764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

24.2	3C-70 MM <sup>2</sup> AL	2	10	NO	
24.3	3C-16 MM <sup>2</sup> AL	2	50	NO	
24.5	2C-2.5 MM <sup>2</sup> CU	2	20	NO	
24.6	3C-2.5 MM <sup>2</sup> CU	2	90	NO	
25.0	<b>LT CONTROL CABLES (ARMOURED)-LAYING</b>				
25.1	3C-1.5 MM <sup>2</sup> CU	2	40000	MTR	
25.2	2C-1.5 MM <sup>2</sup> CU	2	2500	MTR	
25.3	12C-1.5 MM <sup>2</sup> CU	2	88000	MTR	
25.4	14C-1.5 MM <sup>2</sup> CU	2	8500	MTR	
25.5	LT SCREENED COPPER ARMOURED CABLE, 4C-1.5 MM <sup>2</sup>	2	72000	MTR	
26.0	<b>CABLE TERMINATION</b>				
26.1	3C-1.5 MM <sup>2</sup> CU	2	270	NO	
26.2	2C-1.5 MM <sup>2</sup> CU	2	10	NO	
26.3	12C-1.5 MM <sup>2</sup> CU	2	74	NO	
26.4	14C-1.5 MM <sup>2</sup> CU	2	12		
26.5	LT SCREENED COPPER ARMOURED CABLE, 4C-1.5 MM <sup>2</sup>	2	260	NO	
27.0	<b>STRAIGHT THROUGH JOINTING FOR FOLLOWING SIZE OF LT CABLES:</b>				
27.1	2C -12 C x 2.5 SQ MM (CU)(upto 2.5 sq mm. cable size, rate shall be inclusive of supply of jointing kit	2	40	NO	
27.2	3C x 6 SQ MM (CU)	2	10	NO	
27.3	4C x 16 SQ MM (AL)	2	10	NO	
27.4	3C x 35 SQ MM (AL)	2	10	NO	
27.5	3.5C x 35 SQ MM (AL)	2	10	NO	
28.0	INTERLOCKS (COMMISSIONING ONLY)	9	6	SETS	
28.0	DATA LOGGER PERSONAL COMPUTER WITH COLOUR MONITOR	7	1	SETS	
29.0	IOS PERSONAL COMPUTER WITH 21' COLOUR MONITOR	7	1	SETS	
30.0	PRINTER (LASER JET COLOUR)	7	1	NO	

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

31.0	FRP JUNCTION BOX FOR START STOP PB VAR-C2 (250 mm x 150 mm x 400 mm, 12 kg/JB)	3	24	NO		
32.0	FRP JUNCTION BOX FOR HOPPER HEATER FEEDBACK, VAR-C2 (250 mm x 150 mm x 400 mm, 12 kg/JB)	3	12	NO		
33.0	FRP JUNCTION BOX FOR ALI – HIGH & LOW, VAR-C2 (250 mm x 150 mm x 400 mm, 12 kg/JB)	3	24	NO		
34.0	FRP JUNCTION BOX FOR DUST DENSITY MONITOR (250 mm x 150 mm x 400 mm, 12 kg/JB)	3	6	NO		
35.0	DUST DENSITY MONITOR (DDM) 100 KG / OPM	7	6	NO		
36.0	ARECA CONTROLLER FITTED IN EC PANEL (280 mm X 210 mm X 210 mm, 05 KG / ARECA)	7	108	NO		
37.0	RAPCON CONTROLLER (24 WAYS) FITTED IN RAPCON PANEL (280 mm x 210 mm x 210 mm, 250 kg)	7	24	NO		
38.0	STATCON CONTROLLER FITTED IN STATCON PANEL	7	6	NO		
39.0	<b>CABLE TRAYS WITH ACCESSORIES (LADDER TYPE)</b>					
39.1	600 mm (W)	1	4500	MTR		
39.2	450 mm (W)	1	3000	MTR		
39.3	300 mm (W)	1	1500	MTR		
40.0	<b>CABLE TRAYS WITH ACCESSORIES (PERFORATED TYPE)</b>					
40.1	600 mm (W)	1	700	MTR		
40.2	300 mm (W)	1	350	MTR		
41.0	GI FLAT 30mm X 5mm	4	3900	MTR		
42.0	GI FLAT 50mm X 6mm	4	6200	MTR		
43.0	GI WIRE - 4.0 mm DIA (8 SWG)	4	22000	MTR		
44.0	<b>BOLTED TYPE FLEXIBLE CABLE TRAY SUPPORT</b>					
44.1	SINGLE SUPPORT CHANNEL	1	1500	MTR		
44.2	BASE PLATE FOR SINGLE SUPPORT CHANNEL	1	5200	NO		
44.3	DOUBLE SUPPORT CHANNEL	1	3200	MTR		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

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**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

44.4	CANTILEVER ARM (C/A) - 350 mm	1	320	NO	
44.5	BEAM CLAMP	1	1300	NO	
44.6	CLAMP FOR SINGLE CHANNEL-CC1	1	1160	NO	
44.7	TRAY CLAMP FOR LADDER TYPE CABLE TRAY	1	17050	NO	
44.8	M6 FASTENER SET	1	3650	NO	
44.9	M12 FASTENER SET	1	40000	SET	
44.10	90 DEGREE ANGLE FITTING	1	7900	NO	
44.11	CLAMP FOR DOUBLE CHANNEL-CC2	1	270	NO	
44.12	RIGHT ANGLE HEAVY DUTY FITTING	1	1900	NO	
44.13	STRAIGHT FITTING	1	650	NO	
44.14	BASE PLATE FOR DOUBLE CHANNEL	1	2500	NO	
45.0	STRUCTURAL STEEL FOR CABLE TRAY SUPPORT AND MISC. FABRICATION JOB	5	50	MT	
46.0	OPACITY MONITOR	7	6	SET	
47.0	IOS PANEL (1000 mm X 650 mm X 2000 mm, 250 Kg. / Panel)	6	1	NO	
48.0	DATA LOGGER PC WITH COLOUR MONITOR (1220 mm x 762 mm, 10 kg)	7	1	NO	
49.0	Dry out of HT Motors	9	7	NO	
50.0	Testing, Commissioning of HT Motors ( Dry out is excluded)	9	16	NO	
51.0	<b>Dry out of LT Motors</b>				
51.1	Upto 5 KW	9	301	NO	
51.2	More than 5 KW & Upto 50 KW	9	22	NO	
51.3	Above 50 KW	9	11	NO	
52.0	<b>Testing, Commissioning of LT Motors (Dry out is EXCLUDED)</b>				
52.1	Upto 5 KW	9	301	NO	
52.2	More than 5 KW & Upto 50 KW	9	22	NO	
52.3	Above 50 KW	9	11	NO	
53.0	SOOT BLOWER & MOV (COMMISSIONING ONLY)	9	210	NO	

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-11764:16**

**SCH-2 PART-A ELECTRICAL JOB (UNIT # 1)**

54.0	LOCAL JUNCTION BOX FOR ALI – HIGH & LOW (600 mm x 150 mm x 315 mm, 12 kg)	3	24	NO		
55.0	Furnace Temp. probe including solenoid, thermocouple etc.	7	2	NO		
56.0	Electrically (LT) operated valves, Blowers, Dampers and Gates with Actuators, Limit Switches etc.	7	1353	NO		
57.0	SEE PANELS	6	7	NO		
58.0	SEE TRANSFORMER (3050X2895X1845),7 MVA	6	1	NO		
59.0	Supply & making the earth pit as per IS:3043 including earth/masonry work (size of electrode 50 mm dia, GI pipe, 3 m long, class 'B'). Pit shall be filled with alternative layer of charcoal & salt. GI pipe shall be with funnel with wire mesh for watering, masonry block CI cover complete as per IS. All the earth pits are to be inter connected with GI strip of size 50 x 6 mm including supply of all material.	6	5	SET		
59.0	<b>MINOR CIVIL WORK</b>					
59.1	Chipping / breaking of brick wall and concrete floor/wall [Including Finishing]	10	20	Cu. M		
59.2	Supply & installation of Heavy duty Galvanised friction anchor fastners of Hilti / Bosch or any other approved make of dia 16 mm and 100 mm length with supply of all hardwares as required.	10	80	NO		
59.3	Excavation with lift up to 0.5 meters including draining and pumping out water to maintain reasonably dry working condition for all activities, including backfilling & compaction of excavated material after completion of the activities etc. all complete as per drawings and/or instructions of the engineer	10	20	Cu. M		
<b>GRAND TOTAL</b>						

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

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**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
<b>1.0</b>	<b>CABLE TRAYS (GI Perforated Type/Ladder type with/without cover) (complete with all fixing accessories as applicable as per drawing , including site modifications required for all types of bends / turns or any profile, as required to suit site layout)</b>					
<b>1.01</b>	Cable tray & acc. -100 MM width	Mtr	1	7425		
<b>1.02</b>	Cable tray & acc. -150 MM width	Mtr	1	15322		
<b>1.03</b>	Cable tray & acc. -50 MM width	Mtr	1	10300		
<b>1.04</b>	Cable Duct 60x60x1000/ Cable Duct 100x180x1000/Cable Duct 100x250x1000	Mtrs.	1	400		
<b>2.0</b>	<b>CABLING (LT- POWER/CONTROL/SIGNAL) (Armoured/unarmoured, Individual Shielded/overall shielded/unshielded/FRLS, Cu/Al)</b>					
2.01	1C X 630 SQ.MM AI XLPE	Mtrs.	2	480		
2.02	1C X 120 SQ.MM AI	Mtrs.	2	3620		
2.03	1C X 35 SQ.MM AI	Mtrs.	2	2460		
2.04	2C X 35 SQ.MM AI	Mtrs.	2	3000		
2.05	2C X 70 SQ.MM AI	Mtrs.	2	1720		
2.06	3CX240 SQ.MM XLPE INS.POWER CABLE	Mtrs.	2	1000		
2.07	3CX6 SQ.MM	Mtrs.	2	500		
2.08	2P-8P X 0.5 SQ.MM	Mtrs.	2	272300		
2.09	12P X 0.5 SQ.MM	Mtrs.	2	9500		
2.10	Thermocouple Extension 2x2x0.5 sq.mm / T/C EXTENSION / COMP. CABLE 2P / Kx/Rx/Sx type.	Mtrs.	2	18300		
2.11	Optical fibre cables with /without HDPE conduit(laying except termination)	Mtrs.	2	3000		
2.12	Flame scanner shielded cable (2PX1.3 Sq. mm)	Mtrs.	2	12000		
2.13	2C - 7C upto 2.5 SQ. MM.	Mtrs.	2	93950		
2.14	10C - 19C upto 2.5sqmm SQ. MM Cable.	Mtrs.	2	9350		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
2.15	2PX1.5 SQ.MM cable	Mtrs.	2	10600		
2.16	3C x 16 SQ.MM cable	Mtrs.	2	2600		
2.17	Network UTP Cable			9000		
2.18	12P-16P X 0.5 SQ.MM KX/RX/SX TYPE EXTENSION CABLE	Mtrs.	2	1200		
2.19	GI Earthing Wire	Mtrs.	2	1700		
2.20	GI strip 300x25x2 mm	Mtrs.	2	200		
2.21	SHIELDED SIGNAL CABLE for Flow Meter	Mtrs.	2	30		
2.22	SONIC SENSOR PIG TAIL CABLE	Mtrs.	2	450		
2.23	RG-11 VIDEO CABLE	Mtrs.	2	1800		
2.24	RG-59 VIDEO CABLE	Mtrs.	2	200		
2.25	4 C X 3.31	Mtrs.	2	1030		
2.26	18 C X 3.31	Mtrs.	2	530		
2.27	6 C X 3.31	Mtrs.	2	100		
2.28	HOSE - 1/4", 1/2", 1", ss/Teflon, Braided/Unbraided, up to 5M length.	Mtrs.	4	345		
	<b>Note : (1). Insulated copper lugs of std quality, Numbered ferrules by machine printed ,Tags ,ties are to be supplied by the Bidder at his cost. However all the lugs supplied by BHEL/trichy will be handed over to vendor at free of cost. (2) Gland will be supplied by BHEL free of Cost.</b>					
<b>3.0</b>	<b>JUNCTION BOX (ELECTRICAL/FRP, MS/FIBRE/GI, Cold Junction Compensation Box ETC.) (with or without canopy erection)</b>					
3.01	JUNCTION BOX 6 Way	No.	3	20		
3.02	JUNCTION BOX 12 Way	No.	3	25		
3.03	JUNCTION BOX - 24 Way	No.	3	194		
3.04	JUNCTION BOX - 36 Way	No.	3	10		
3.05	JUNCTION BOX - 48 Way	No.	3	59		
3.06	JUNCTION BOX - 72 Way	No.	3	44		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
3.07	JUNCTION BOX FOR TEMP. TRANSMITTER	No.	3	202		
3.08	Miniature Junction Box - 6 way	No.	3	40		
3.09	FSSS local gun maintainance switchbox/ local push button box/ shear pin failure indication box/ proximiter housing JB/Emergency stop push buttons	No.	3	48		
<b>4.0</b>	<b>IMPULSE PIPE/ CU TUBE/CONDUIT(Including accessories and fittings like TEE, Valves, Nipples, Manifolds,SYPHON, Condensate Pots / Condensing Vessels/ Glycerine seal pot etc.)</b>					
4.01	CS Impulse Pipe upto 1/2" upto SCH 160	Mtr	4	2085		
4.02	Impulse Pipe SA106 GRB (D26.7 x 3.91 mm)	Mtr	4	130		
4.03	CS Impulse Pipe upto 3/4" NB upto SCH 80	Mtr	4	4900		
4.04	Impulse pipe ASTM A106 GR C 1" NB upto SCH 80	Mtr	4	300		
4.05	CS Impulse pipe,16x2.6 / S/L A106 GRB	Mtr	4	1540		
4.06	CS Pipe 2" SCH 40	Mtr	4	25		
4.07	CS Pipe 60.3 x 3.91 mm	Mtr	4	130		
4.08	AS/CS Impulse pipe P22 26.7 x3.91 mm	Mtr	4	100		
4.09	Cr-Al Impulse pipe 21.3 x3.73	Mtr	4	500		
4.10	GI Pipe (1/2" to 1") Heavy Grade	Mtr	4	2250		
4.11	Copper tube (Upto 1/2" OD)	Mtr	4	4700		
4.12	GI Pipe ( 1" to 1.5") Heavy Grade	Mtr	4	25		
4.13	Seamless CS tube 13.5 x 2.6 mm	Mtr	4	10		
4.14	CS Tube 88.9 x 4 mm	Mtr	4	40		
4.15	Seamless CS/AS tube 21.3x7.47/ 21.3 X 2.77/21.3X 2.3	Mtr	4	985		
4.16	SS tube 6 x 1.5 mm	Mtr	4	70		
4.17	SS tube 12.7 x 2.1 mm	Mtr	4	2000		
4.18	Flexible Pipe upto 1"	Mtrs.	4	50		
4.19	Flexible Pipe- 1" to 2"	Mtrs.	4	50		
<b>5.0</b>	<b>FABRICATION &amp; ERECTION</b>					
5.01	Structural steel for fabrication	MT	5	15		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1 (A)	Unit Rate (in Rs.) ( B )	Total Amount (in Rs.) (C=AxB)
<b>6.0</b>	<b>PANELS &amp; CABINETS</b>					
6.01	Suite of 1 Panel	No.	6	5		
6.02	Suite of two panel	Set	6	5		
6.03	Suite of three panel	Set	6	6		
6.04	Suite of four panel	Set	6	2		
6.05	Suite of five panel	Set	6	6		
6.06	Fuel Oil Pump control Panel	No.	6	1		
6.07	Acoustic Steam leak detection (STLD)system Panel (800X2315X800),200 Kg	No.	6	1		
6.08	Gravimetric Feeder Remote control panel(1400X2365X610,300 Kg) including local integral Panel(600X750X350,75 Kg).	No.	10	9		
6.09	240V AC CONTROL SUPPLY PANEL, 300 Kg	Set	6	1		
6.10	Furnace flame viewing system-remote panel(800X2100X600),500 Kg	No.	6	1		
6.11	AH Main control panel (1830X2186X611),363 Kg	No.	6	2		
6.12	AH LCS sector plate 1&2 drive panel (645X673X203),45 Kg	No.	6	8		
6.13	HWL-1&2 & MEFCV control vale panel (600X600X250),100 Kg	No.	6	1		
6.14	Profibus Remote I/o System Panel	No.	6	3		
6.15	LCS Motor Drive Panel	No.	6	4		
6.16	Foundation Fieldbus Panel for Boiler MTM	No.	6	5		
6.17	Accoustic Pyrometer Remote cabinet (1400X2365X800)	No.	6	1		
6.18	CARBON-IN-ASH ANALYSER CONTROL CABINET (1400X2365X610)	No.	6	1		
6.19	UPS AC POWER DIS CABINET -1 PDB01 (1 PANEL)	Nos	6	1		
6.20	UPS AC POWER DIS CABINET -2 PDB02 (1 PANEL)	Nos	6	1		
6.21	COAL FLOW ANALYSER CONTROL CABINET (1400X2365X610)	No.	6	2		
6.22	Soot blower MCC (21850X2525X1000), 14700.00 Kg	No.	6	1		
<b>7.00</b>	<b>Other Panels/Racks/Boards</b>					
7.01	Furnace Temperature Probe Starter Box, 25 Kg including all accessories	No.	6	2		
7.02	ERV controler box (508X610X279),10 Kg	No.	6	6		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1 (A)	Unit Rate (in Rs.) (B)	Total Amount (in Rs.) (C=AxB)
7.03	Scanner air fan DC motor starter, ((900x1000x375), 50 Kg	No.	6	1		
7.04	Furnace flame viewing system-camera control box(1220X1470X610),100 KG	No.	6	4		
7.05	Furnace flame viewing system-Zoom control box(400X300X210), 27.0 KG	No.	6	1		
7.06	240V UPS DISTRIBUTION BOARD (1400x2365x800)	No.	6	1		
7.07	240V UPS DISTRIBUTION BOARD (1200x800x600)	No.	6	4		
7.08	FTP Local Starter (650x1000x300), 25.0 Kg	No.	3	2		
7.09	HMI SYSTEM FOR SG MAIN comprising of :					
7.09.1	NETWORK PANEL DCS(SUITE:NWPD03)	Nos	6	1		
7.09.2	POWER DISTRIBUTION PANEL (SUITE:PDNL01)	Nos	6	1		
7.09.3	OWS	Nos	6	2		
7.09.4	LVS work station	Nos	6	3		
7.09.5	Max Link Station	Nos	6	2		
7.09.6	Storian Station	Nos	6	2		
7.09.7	EWS	Nos	6	2		
7.09.8	Colour Laserjet Printer (A4 size)	Nos	6	1		
7.10	HMI SYSTEM FOR FOPH comprising of :					
7.10.1	NETWORK ENCLOSURE FOPH (SUITE:NWEF01)	Nos	6	1		
7.10.2	OWS	Nos	6	2		
7.10.3	EWS	Nos	6	2		
7.10.4	Colour Laserjet Printer (A4 size)	Nos	6	1		
8.00	<b>Workstation</b>					
8.01	Max Storian /Max OWS/Max EWS(1 SET COMPRISES OF 1 NO. CPU, KEYBOARD,PRINTER, ACCESSORIES AND 1 NO. MONITOR)	Set	9	13		
8.02	Steam leak detection (STLD) system PC station	No.	9	1		
8.03	Accoustic Pyrometer PC station	No.	9	1		
<b>9.0</b>	<b>LIE / LIR / RACK / ENCLOSURE</b>					
9.01	LIRs/RACK-4RX-WITH ACCESSORIES/RACK-6RX- WITH ACCESSORIES/LGB Assembly	No	6	71		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
9.02	LIEs/ENCLOSURE-4EX WITH ACCESSORIES	No	6	22		
<b>10.0</b>	<b>FIELD INSTRUMENTS</b>					
10.01	Pressure Gauge / Diff. Pressure Gauge /Differential Pressure Indicator (controller)/Pressure indicator	No.	7	325		
10.02	Temp Gauges/ Temperature indicator/Temp. element (capillary as well as non capillary type) with/without thermowell	No.	7	530		
10.03	Level Gauges/Level indicator	No.	7	29		
10.04	Oxygen Analyser system (Low Temperature)	set	7	8		
10.05	Bypass Rotameter/Flow meter (orifice assy)/Mass flow meter	No.	7	13		
10.06	Diff. Pr. Switches/Pr. Switches/DP indicating switch	No.	7	43		
10.07	Electronics Transmitters (Pressure/DP/Level/Flow/Temp Transmitters / Single i/p Din Rail Mounted Temperature Transmitter (Sensor type-RTD)/Single i/p Din Rail Mounted Temperature Transmitter (Sensor type-TC K) /Dual i/p Temperature Transmitter/Vibration Transmitter/Analyser Transmitter	No	7	2037		
10.08	Ultrasonic type level Transmitters/Level Transmitter (displacer type)/Electronic Level Transmitter (with amplifier etc), capacitance or Conductivity type / Guided Wave Radar (GWR) Transmitter	No	7	36		
10.09	Limit switch/Limit switch for shear pin failure indication box/Fire protection Switch in IP65 Box	No.	7	62		
10.10	Position transmitter	No.	7	42		
10.11	Temperature switch/Thermostat	No.	7	42		
10.12	Flow switch (Mechanical/Electronic)	No.	7	20		
10.13	Gas Anlayser	No.	7	2		
10.14	MOISTURE MEASURING SYSTEM including local cabinet, sensor, display unit, dew point monitor and cable.	Set	7	1		
10.15	Mini UPS for computers	Nos	6	19		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
10.16	Computer Furniture(Computer tables , Printer tables & Chairs) - Scope includes support/assistance to BHEL vendor for furniture assembling					
10.16.1	Computer Table/Printer Table/Computer Chair	No	7	15		
10.17	Graphical Interface Units(GIU)	Set	7	4		
10.18	Color Laser Printer A4 /A3	No.	7	9		
10.19	Electronic Level Switch (with amplifier etc), Float type Level switch,capacitance or Conductivity type Level Switch for CRH Drain Pot (Each set consisting of 4 probes, 4 inserts, two electronic cabinet and cables (15 mtr. Per probe))	Set	7	64		
10.20	Flame Scanner Head Assembly including cabling upto JB	No.	7	40		
10.21	Flame scanner amplifier	No.	7	10		
10.22	ASLD sensor & sonic tube assly.	No.	7	30		
10.23	Field amplifier module with box	No.	7	30		
10.24	Air filter regulator for SADC system/mill system	No.	7	17		
10.25	Electro-Pneumatic (E/P) Converter/ I/P Transducer	No.	7	58		
10.26	Coal Flow monitor including sensor, amplifier and pre-fab cables.	No.	9	9		
10.27	PURGE METER	No.	7	18		
10.28	Online Coal Flow Measurement system (Scope includes sensor installation, cable laying and termination, assisting vendor personnel during commissioning. There will be 4-6 sensors per pipe. Total 4 pipes per Mill. 9 Mills per boiler)	Set	9	1		
10.29	Online carbon in ash measurement system	No	9	1		
10.30	RTD (PRT, CRT, MINIATURE RTD, ETC.)/DUPLEX RTD(2WIRE//3 WIRE/4WIRE) with/without Thermowell.	No.	7	1005		
10.31	MTM Thermocouples(EACH OF 8M, 10M,12M,14M,16M, 18M, 20M, 22M, 24M, 26M,28M, 30M-LENGTH) with/without Thermowell inclusive of welding of Pads & Clamps	No.	7	745		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

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**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
10.32	THERMOCOUPLE (K type/ T type / R type / J type, with or without integrated metallic extension cable)/Thermocouple DRA 300/ Type A/Type-B/Type-C/TypeD /Duplex/Chromel Alumel Thermocouple/Thermocouple with/without Thermowell	No.	7	1065		
10.33	Coal Bunker level monitoring System (Consisting of Strain sensor & JB- 27 nos, Controller Model DCL- 9 nos, Bar graph display model- 9 nos, 4-20 mm Current Splitter - 9 Nos, RITTAL panel for Bar Graph Display & controller DCL- 100 & Splitter - 1 no each and other accessory items)	Set	9	1		
10.34	IP converter including AFR Assembly	No	6	26		
10.35	Weight Transducer (Load Cells)	No.	7	24		
10.36	Electrical actuator Local Control Box, 35.0 Kg	No.	3	7		
10.37	Cooling Vessels	No.	7	6		
<b>11.0</b>	<b>CALIBRATION/ COMISSIONING (Erection excluded)</b>					
11.01	Oil Purification panel Removal, Calibration and erection of oil Purification skid mounted instruments.	Set	10	1		
11.02	Burner tilt Power cylinder	No.	10	12		
11.03	Ignitor retractor assembly, flexible spark rod, spark tip, flexible cable assembly, S.S. house (1 mtr long, 6.35 mm ID)	No.	10	16		
11.04	Power cylinder for scoop	No.	10	5		
11.05	Power cylinder (on-off type)	No.	10	55		
11.06	Power cylinder (regulating type)	No.	10	27		
11.07	Solenoid Valve(2 WAY/3 WAY/4 WAY)	No.	10	270		
11.08	HPBP Pr. & temp. control valve	No.	10	4		
11.09	HPBP spray block valve	No.	10	1		
11.1	LP Bypass spray Control valve with Feedback Transmitter	No.	10	2		
11.11	LP Bypass control rack (erection is excluded, rate to be quoted only for calibration and commissioning of instruments)	No.	10	1		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1	Unit Rate (in Rs.)	Total Amount (in Rs.)
				(A)	(B)	(C=AxB)
11.12	ELECTRICAL ACTUATOR FOR FD FAN, PA FAN & ID FAN	No	10	7		
11.13	Gravimetric Feeder with local control panel & Associated Equipments with Feeder calibration.	Set	10	9		
11.14	Pneumatic Pressure Controller with accessories / for seal air dynavane.	No	10	1		
11.15	COLD AIR / HOT AIR DAMPER ACTUATOR A-J	No	10	18		
11.16	SCAPH / PAPH FG OUTLET DAMPER CTRL ACTUATOR	No	10	6		
11.17	Electrical regulating drives: (valve, damper, scoop)	No	10	51		
11.18	Pneumatic regulating drives: (valve, damper) including Burner Tilt	No	10	106		
11.19	Commissioning of Hydraulic Actuator	No	10	10		
11.2	Corner nozzle valve / Trip valves commissioning	No	10	48		
11.21	Open/Close type pneumatic gates / dampers / valves	No	10	118		
11.22	Only healthiness checking of embedded RTD/ T/C	No	10	122		
11.23	Limit switches	No	10	81		
11.24	Extraction NRV/ Spray water control valve	No	10	8		
11.25	Removal, calibration, re-mounting and commissioning of instruments for Skid. Each skid will have minimum of 05 no. instruments e.g. PG/PS/TG/DPI /DPS/TS/RPM meter with probe/LS/LG /FS/FI etc. Dressing of capillary & cables if any, repair of Cu-tube/impulse pipe, if any, changing of terminals of JB. if any, is also included.	No.	9	25		
<b>12.0</b>	<b>POWER CYLINDERS</b>					
12.01	Power Cylinder for ID/FD/PA fan inlet damper	No.	11	6		
12.02	Power Cylinder for Hot/Cold air damper	No.	10	18		
12.03	Mill Discharge Valve Power Cylinders (Set of four)	Set	10	9		
12.04	Power cylinder for SADC	No.	11	104		
<b>13.0</b>	<b>24V DC BATTERY CHARGERS,BATTERY</b>					

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-3 PART- B C&I JOB (UNIT# 1)**

SL. NO.	DESCRIPTION	UNIT	Billing Sch. Ref. No.	Qty for Unit # 1 (A)	Unit Rate (in Rs.) (B)	Total Amount (in Rs.) (C=AxB)
13.01	24 V DC Battery Charger for SG Main with each set comprising of 2 chargers (One set of Charger comprises of 2x100% FCBC, 1x100% DCDB & BHMS Common for Both Batteries)	Sets	6	1		
13.02	DCDB for SG Main for 24 VDC Battery Charger	Sets	6	1		
13.03	24 V DC Battery (2 x 19 KPH 575 P) with one common DRB - For SG Main Dim 345mm X 195mm X 405mm	Sets	6	1		
13.04	24V DC Charger for FOPH	Sets	6	1		
13.05	24 V DC Battery (19 KPH 85 P) for FOPH system	Sets	6	1		
13.06	24 V DC Battery (19 KPH 75 P) for Auxiliary Boiler System	Sets	6	1		
<b>14.0</b>	<b>PG TEST ITEMS :</b>					
14.01	1/2" Impulse Pipe	mtr.	4	800		
14.02	Compensating Cable (2C, Core size upto 2.5 sqmm) laying & termination	mtr.	2	1350		
14.03	2C, Core size upto 2.5 sqmm cable laying & termination	mtr.	2	3000		
14.04	4C, Core size upto 2.5 sqmm cable laying & termination	mtr.	2	3000		
14.05	Pre-fab cable from Data logger to computer	mtr.	2	50		
14.06	Junction Box	No.	3	80		
14.07	Thermocouple	No.	7	45		
14.08	Pr. / vacuum / DP Transmitters	No.	7	70		
14.09	Data logger	No.	7	1		
14.1	Manometer	No.	7	10		
14.11	Thermowell	No.	7	100		
14.12	PRT (Pt. Resistance thermometer)	No.	7	90		
14.13	Barometer	No.	7	1		
14.14	Power meter / transducer	No.	7	10		
<b>15.0</b>	Installation of Electronic earth pit as per the instruction of BHEL engineer to the tune of 0.5 ohm fixing rod ,riser with necessary ingredients.	No.	5	2		
<b>TOTAL</b>						

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
<b>1.00</b>	<b>CABLE TRAYS (GI Perforated Type/Ladder type with/without cover) (complete with all fixing accessories as applicable as per drawing , including site modifications required for all types of bends / turns or any profile, as required to suit site layout)</b>								
1.01	Cable sub-tray - 2"(50mm)	Mtr	1	1300	1300	1300	3900		
1.02	Cable sub-tray - 4"(100mm)	Mtr	1	2600	2600	2600	7800		
1.03	Cable sub-tray - 6"(150mm)	Mtr	1	600	600	600	1800		
<b>2.00</b>	<b>JUNCTION BOX (ELECTRICAL/FRP, MS/FIBRE/GI, Cold Junction Compensation Box ETC.) (with or without canopy erection)</b>								
2.01	24 WAY JUNCTION BOX	No	3	40	40	40	120		
2.02	36 WAY JUNCTION BOX	No	3	25	25	25	75		
2.03	48 WAY JUNCTION BOX	No	3	95	95	95	285		
2.04	64 WAY JUNCTION BOX	No	3	12	12	12	36		
2.05	72 WAY JUNCTION BOX	No	3	5	5	5	15		
2.06	96 WAY JUNCTION BOX	No	3	23	23	23	69		
2.07	FMU-1024 Ways	No	3	9	-	-	9		
2.08	FMU-512 Ways	No	3	7	-	-	7		
2.09	128 WAY JUNCTION BOX	No	3	13	12	12	37		
<b>3.00</b>	<b>IMPULSE PIPE/ CU TUBE /CONDUIT (Including accessories and fittings like TEE, Valves, Nipples, Manifolds, SYPHON, Condensate Pots/Glycerine seal pot etc.)</b>								
3.01	A106 Gr.C 1/2" NB Sch 160	Mtr	4	1375	1375	1375	4125		
3.02	A335 P22 1/2" NB upto Sch 160	Mtr	4	1300	1300	1300	3900		
3.03	A106 Gr.C 1/2" NB Sch 80	Mtr	4	4000	4000	4000	12000		
3.04	A106 Gr.C 3/4" NB Sch 80	Mtr	4	3700	3700	3700	11100		
3.05	A335 P22 3/4" NB Sch 80	Mtr	4	750	750	750	2250		
3.06	A213 TP316H SIZE: 3/4" NB SCH 160	Mtr	4	700	700	700	2100		

VOLUME-III

PRICE SCHEDULE, REV-2

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SCH-4 STATION C AND I  
TENDER NO. PSER:SCT:NBN-I1764:16

SIGNATURE WITH SEAL  
OF BIDDER

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
3.07	A213 TP316H SIZE:3/4" NB SCH80	Mtr	4	800	800	800	2400		
3.08	A335 P91 1/2" NB Sch XXS	Mtr	4	950	950	950	2850		
3.09	GI/PVC Conduit upto 1" (flexible / rigid/lead coated/zinc coated)	Mtr	4	11,645	11,645	11,645	34935		
3.10	GI / PVC Conduit above 2" (flexible / rigid/lead coated/zinc coated)	Mtr	4	1300	1300	1300	3900		
<b>4.00</b>	<b>PANELS &amp; SYSTEMS AND PLANT MONITORING SYSTEM</b>								
4.01	Suite of one panel	Nos	6	3	3	3	9		
4.02	Suite of two panel	Nos	6	9	9	9	27		
4.03	Suite of three panel	Nos	6	15	15	15	45		
4.04	HART Management System Panel	Nos	6	1	1	1	3		
4.05	Electrical Control Panel	Nos	6	1	1	1	3		
4.06	LVS of 67" with its control station and controller	Nos	9	6	6	6	18		
<b>5.00</b>	<b>HMI FOR UNIT DDCMIS System</b>								
5.01	Network Panel DCS-A(DC)-NWPD01/DCS-B(DC)-NWPD02/HMI(AC)-NWPA03	Nos	6	3	3	3	9		
5.02	POWER DIST. PANEL-PDPH01	Nos	6	1	1	1	3		
5.03	Information Work Station ( 1 SET CONSISTING OF CPU, PRINTER, ACCESSORIES,MONITOR ETC)	No	9	2	2	2	6		
5.04	Max Link Station	No	9	2	2	2	6		
5.05	Colour Laserjet Printer - A3 Size	No	9	1	-	-	1		
5.06	OWS on UCD ( 1 SET CONSISTING OF CPU, PRINTER, ACCESSORIES AND MONITOR)	No	9	3	3	3	9		
5.07	OWS on UID ( 1 SET CONSISTING OF CPU, PRINTER, ACCESSORIES AND MONITOR)	No	9	1	1	1	3		
5.08	Workstation for LVS	No	9	3	3	3	9		
5.09	EWS( 1 SET CONSISTING OF CPU, PRINTER, ACCESSORIES,MONITOR ETC)	No	9	1	1	1	3		
5.1	PC Station in Prog. Room	No	9	1	1	1	3		
5.11	PC Station in CER	No	9	2	2	2	6		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
5.12	Colour Laserjet Printer - A4 Size	No	9	4	4	4	12		
5.13	Line Matrix Printer-	No	9	1	1	1	3		
5.14	Graphical Interface Unit	Nos	9	23	-	-	23		
6.00	<b>FIELD INSTRUMENTS (ERECTION RATE TO BE QUOTED WITH OR WITHOUT CANOPY ERECTION)</b>								
6.01	Conductivity Analysers (Specific & Cation)	No	7	15	15	15	45		
6.02	pH Analyser	No	7	7	7	7	21		
6.03	Dissolved oxygen Analyser	No	7	3	3	3	9		
6.04	Hydrazine Analyser	No	7	2	2	2	6		
6.05	Silica Analyser	No	7	2	2	2	6		
6.06	Sodium Analyser	No	7	2	2	2	6		
6.07	Turbidity Analyser	No	7	1	1	1	3		
6.08	Conductivity analyser withdrawable type	No	7	4	4	4	12		
6.09	Sample Conditioning Panel (Wet Panel)	No	7	1	1	1	3		
6.1	Analyser Panel (Dry Panel)	No	7	1	1	1	3		
6.11	Primary Cooler Rack-Pipinig & Accessories	No	7	1	1	1	3		
6.12	Chiller (Common for 3 units)	No	7	3	-	-	3		
6.13	Sensor/Piezo velocity transducer/ mounting brackets/pads/including driver and extension cable for VMS	Nos	7	147	147	147	441		
6.14	Junction box for VMS	Nos	3	52	52	52	156		
6.15	VMS Panel including rack & other accessories.(appx. Size 800mm x 800mm x 2400mm)	Nos	9	11	11	11	33		
6.16	KVM Switch/Matrix KVM Switch/Switch	No	9	7	7	7	21		
6.17	High temp/Low temp - O2 Analyzers- (at SH Zone, Eco O/L, APH O/L, IDFAN I/L)	Nos	7	16	16	16	48		
6.18	SOX/NOX, CO & CO2 Analyzer	Nos	7	3	3	3	9		
6.19	Dust / Opacity Analyser	Nos	7	1	1	1	3		
6.2	Mercury Analyzers (at Chimney)	Nos	7	1	1	1	3		
6.21	Flow Meter-Ultrasonic Time Transit Type	Nos	7	1	1	1	3		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
6.22	Level Switch Conductivity Type	Nos	7	1	1	1	3		
6.23	Impact Head Type flow element with flow Transmitters	Nos	7	2	2	2	6		
6.24	Pressure Transmitters (Unit-1+Common)/Differential Pressure Transmitters	No	7	404	399	399	1202		
6.25	Guided wave radar type level Transmitters	No	7	15	15	15	45		
7.00	<b>OTHER PANELS /RACKS</b>								
7.01	<b>Local Instrument Enclosures / Racks (LIE / LIR) - Details Below</b>								
7.01.01	LIE TYPE A/TYPE B/TYPE C	No	6	42	42	42	126		
7.01.02	LIR TYPE A/TYPE B/TYPE C	No	6	39	39	39	117		
7.01.03	Master Clock & associated hardware and accessories (Common for 3 units)	Set	7	1	-	-	1		
8.00	<b>UPS/BATTERY</b>								
8.01	140 KVA UPS System with ACDB	Set	6	1	1	1	3		
8.02	Battery for UPS with all accessories	Set	6	1	1	1	3		
8.03	25KVA UPS System with ACDB for CHP	Set	6	1	-	-	1		
8.04	Battery for UPS with all accessories for CHP area	Set	6	1	-	-	1		
8.05	15KVA UPS System with ACDB for water system	Set	6	1	-	-	1		
8.06	Battery for UPS with all accessories for Water system Area	Set	6	1	-	-	1		
8.07	10KVA UPS System with ACDB for AHP Area.	Set	6	1	-	-	1		
8.08	Battery for UPS with all accessories for AHP Area	Set	6	1	-	-	1		
9.00	<b>24V DC CHARGER &amp; BATTERIES</b>								
9.01	24V DC Charger Unit (1000A/275A)	Set	6	12	-	-	12		
9.02	24 V DC Battery Unit	Set	6	6	-	-	6		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
9.03	24 V DC Charger for offsite Unit like Ash Handling/Coal Handling/Water System/Stand Alone system etc. (175A/125A/350A/176A/126A/35A)	Set	6	34	-	-	34		
9.04	24 V DC Battery for Off Site	Set	6	24	-	-	24		
9.05	PDBs for UPS power supply distribution	Nos	6	7	7	7	21		
<b>10.00</b>	<b>STAND ALONE DDCMIS System</b>								
10.01	Suite of two panel	Nos	6	16	-	-	16		
10.02	Suite of three panel	Nos	6	4	-	-	4		
<b>10.1</b>	<b>STAND ALONE HMI System</b>								
10.1.01	MaxOperator workstation (Operator Work Station)/MaxStorian station (Information Work Station)/Engineer work station (Programmer cum Documentation station)	No	9	4	-	-	4		
10.1.02	Colour Laserjet Printer - A4 Size	No	9	1	-	-	1		
10.1.03	Network Panel NWPC01	No	9	1	-	-	1		
10.1.04	Network Enclosures NWEN01	No	9	1	-	-	1		
<b>11.00</b>	<b>WATER DDCMIS System</b>								
<b>11.01</b>	DDCMIS cabinets Approx Size: 800mm (W) X 800 mm(D) X 2250mm(H)	No	6	50	-	-	50		
<b>11.02</b>	<b>WATER DDCMIS HMI System</b>								
11.02.01	MaxOperator workstation (Operator Work Station)	No	9	6	-	-	6		
11.02.02	MaxStorian station (Information Work Station)	No	9	1	-	-	1		
11.02.03	Engineer work station (Programmer cum Documentation station)	No	9	1	-	-	1		
11.02.04	MaxOperator workstation for LVS	No	9	3	-	-	3		
11.02.05	Colour Laserjet Printer - A4 Size	No	9	1	-	-	1		
11.02.06	Network Panel NWPC02	No	6	1	-	-	1		
<b>12.00</b>	<b>Ash Handling Plant DDCMIS System</b>								

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
12.01	DDCMIS cabinets Approx Size: 800mm (W) X 800 mm(D) X 2250mm(H)	No	6	95	-	-	95		
12.02	<b>Ash Handling Plant HMI System</b>								
12.02.01	MaxOperator workstation (Operator Work Station)	No	9	6	-	-	6		
12.02.02	MaxStorian station (Information Work Station)	No	9	1	-	-	1		
12.02.03	Engineer work station (Programmer cum Documentation station)	No	9	1	-	-	1		
12.02.04	MaxOperator workstation for LVS	No	9	3	-	-	3		
12.02.05	Colour Laserjet Printer - A4 Size	No	9	1	-	-	1		
12.02.06	Network Panel NWPC02	No	6	1	-	-	1		
13.00	<b>Coal Handling Plant DDCMIS System</b>				-	-	0		
13.01	Suite of one panel (CTE41 & CTE42)	Nos	6	2	-	-	2		
13.02	Suite of two panel	Nos	6	6	-	-	6		
13.03	Suite of three panel	Nos	6	10	-	-	10		
13.1	<b>Coal Handling Plant HMI System</b>								
13.1.01	MaxOperator workstation	No	9	2	-	-	2		
13.1.02	MaxStorian station (Information Work Station)	No	9	1	-	-	1		
13.1.03	Engineer work station (Programmer cum Documentation station)	No	9	1	-	-	1		
13.1.04	MaxOperator Workstation for LVS	No	9	2	-	-	2		
13.1.05	Colour Laserjet Printer - A4 Size	No	9	1	-	-	1		
13.1.06	Colour Laserjet Printer - A3 Size	No	9	1	-	-	1		
13.1.07	Line Matrix Printer	No	9	1	-	-	1		
13.1.08	Network Panel NWPL01	No	6	1	-	-	1		
14.00	<b>MakeUp water DDCIMS System -</b>								
14.01	DDCMIS cabinets Approx Size: 800mm (W) X 800 mm(D) X 2250mm(H)	No	6	5	-	-	5		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
<b>14.1</b>	<b>MakeUp water HMI System</b>								
14.1.01	MaxStorian station (Information Work Station):	No	9	2	-	-	2		
14.1.02	Colour Laserjet Printer - A4 Size	No	9	1	-	-	1		
<b>15.00</b>	<b>Station LAN System</b>								
15.01	Shift In-charge Workstation	Nos	9	1	-	-	1		
15.02	Test Server:	Nos	9	1	-	-	1		
15.03	NMS Server:	Nos	9	1	-	-	1		
15.04	Station LAN Server:	Nos	9	2	-	-	2		
15.05	PC Station:	Nos	9	1	-	-	1		
15.06	Gateway PC/Terminal Server:	Nos	9	1	-	-	1		
15.07	Color LaserJet Printer - A4 Size	Nos	9	1	-	-	1		
15.08	Network switches a.) AC Layer 3 core switch: 2 Nos b.) AC layer 2 switch : 2 Nos c.) AC Layer 3 switch: 2 Nos d.) AC layer 2 switch: 8 Nos	Nos	9	14	-	-	14		
15.09	Network Panel & Enclosure	Nos	9	5	-	-	5		
15.1	N/W Panel Station LAN-AC-NWPS01	Nos	9	1	-	-	1		
15.11	N/W Panel Station LAN-AC-NWPS02	Nos	9	1	-	-	1		
15.12	Network Enclosure for PC Station --NWEN04/SLAN/SWAS/ --NWEN05/SLAN/SRVC --NWEN06/SLAN/LOC1 --NWEN07/SLAN/LOC2	Nos	9	4	-	-	4		
15.13	Power Distribution Board (Common for 3 units)	Nos	3	1	-	-	1		
<b>16.00</b>	<b>Control Desk(common for 3 units)</b>								
16.01	Control Desk for Unit/UID/ including UCD drawout & mosaic items for single unit/combined unit/AHP/Water System/ CHP etc	Nos	6	8	-	-	8		

<b>VOLUME-III</b>									
<b>PRICE SCHEDULE, REV-2</b>									
<b>PACKAGE-1 Erection, testing &amp; commissioning of electrical and C&amp;I system of SG (Unit # 1) and complete station C&amp;I system for Unit# 1, 2 &amp; 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.</b>									
<b>TENDER NO - PSER:SCT:NBN-I1764:16</b>									
<b>SCH-4 PART- C STATION C&amp;I SYSTEM (UNIT#1,2,3)</b>									
SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
16.02	Computer Furnitures Computer Table - 23 Nos Computer Chair - 104 Nos Printer Table - 10 Nos Scope includes support/assistance to BHEL vendor for furniture assembling	Set	10	1	-	-	1		
16.03	WORKSTATION FURNITURE - 52 Nos Printer Rack (For 3 A4 Printers) - 10 Nos PC Rack ( for 4 PC's) - 21 Nos Server Rack For 2 PCs & miniUPS) - 47 Nos Scope includes support/assistance to BHEL vendor for furniture assembling	Set	10	1	-	-	1		
16.05	Mini UPS	Nos	6	49	-	-	49		
<b>17.00</b>	<b>Ambient air monitoring system (Common for 3 Units)</b>								
17.01	Ambient air quality monitoring system (Imported Portion - Analysers)	Set	9	1	-	-	1		
17.02	Ambient air quality monitoring system (Indigenous Portion - Sample Handling System)	Set	9	1	-	-	1		
17.03	Mercury Analyzers for AAQMS	Set	7	1	-	-	1		
17.04	Wireless system for AAQMS	Set	7	1	-	-	1		
<b>18.00</b>	<b>CABLING -Common for 3 units- POWER /CONTROL / SIGNAL cable (Armoured/unarmoured, Individual Shielded/overall shielded/unshielded/FRLS, Cu/Al)</b>								
18.01	2PX0.5 mm2(Type G )	Mtr	2	4500	-	-	4500		
18.02	4PX0.5 mm2(Type G )	Mtr	2	4000	-	-	4000		
18.03	2Triad X0.5 mm2(Type F )	Mtr	2	12660	-	-	12660		
18.04	4PX0.5 mm2(Type F )	Mtr	2	30360	-	-	30360		
18.05	3PX0.5 mm2(Type F )	Mtr	2	12000	-	-	12000		
18.06	10PX0.5 mm2(Type F )	Mtr	2	1000	-	-	1000		
18.07	24PX0.5 mm2(Type F )	Mtr	2	2000	-	-	2000		

**VOLUME-III  
PRICE SCHEDULE, REV-2**

**PACKAGE-1 Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.**

**TENDER NO - PSER:SCT:NBN-I1764:16**

**SCH-4 PART- C STATION C&I SYSTEM (UNIT#1,2,3)**

SL. NO.	Description	Unit	Billing Sch. Ref. No.	Qty			Total qty	Unit Rate (Rs.)	Total Amount (Rs.)
				Unit#1 and Common Areas	Unit#2	Unit#3			
18.08	2PX0.75 mm2(Type F )	Mtr	2	2000	-	-	2000		
18.09	3CX1.5 mm2 Un armoured	Mtr	2	3000	-	-	3000		
18.10	5CX1.5 mm2 armoured	Mtr	2	10000	-	-	10000		
18.11	2C x 2.5 mm2, Annealed Bare Copper, PVC Type A insltn, PVC ST1 FRLS inner and outer sheathed, 1.1KV, un-armoured	Mtr	2	12000	-	-	12000		
19.00	CCTV System	Set	9	1	-	-	1		
	Total								
			<b>TOTAL =</b>						

**FORMAT FOR NO DEVIATION CERTIFICATE**  
**(To be submitted in the bidder's letter head)**

BHARAT HEAVY ELECTRICALS LIMITED,  
Power Sector - Eastern Region,  
Plot no 9/1, DJ Block, Sector – II, Salt Lake City,  
Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	<b>PACKAGE-1</b> Erection, testing & commissioning of electrical and C&I system of SG (Unit # 1) and complete station C&I system for Unit# 1, 2 & 3 of 3x660 MW NPGCL-Nabinagar project, Bihar.	
Ref	1.0	Tender no PSER:SCT:NBN-I1764:16
	2.0	BHEL's NIT, vide reference no PSER:SCT:NBN-I1764:5172, Dated 20-08-2016
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:NBN-I1764:TCN-01, dated 23-08-2016.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:NBN-I1764:TCN-02, dated 02-09-2016.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:NBN-I1764:TCN-03, dated 09-09-2016.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:NBN-I1764:TCN-04, dated 16-09-2016.
	7.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized  
representative of the bidder)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION DJ-9/1, SECTOR-II, SALTLAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : (033) 23398234/ 23398000