



Bharat Heavy Electricals Limited

(A Govt. of India Undertaking)

Transmission Business Group

Materials Management, 5th Floor, Plot No.25,

Sector-16A, Noida, Uttar Pradesh, PIN No: 201301

Phone: 0120-6748543, Email: gaurav.agarwal@bhel.in

CORRIGENDUM - 02 TO NIT NO-77851

Dated 16.11.2023

Subject: Corrigendum-02 to Tender enquiry for Supply GIS parts FOR NLC Talabira PROJECT.

Project : NLC Talabira Project
Equipment / Item : SUPPLY & SERVICES OF 765kV GIS
Enquiry No/Date : Enquiry No. 61Q2400198 Dated 30-10-2023
BHEL NIT NO : 77851
Original Tender due date : 09.11.2023

This Corrigendum is issued by BHEL-TBG against above mentioned NIT/ enquiry for-

- a) Technical Corrigendum,
- b) Technical clarifications in response to pre-bid queries of bidders (as provided by TBEM) along with **revised BOQ and revised Price bid format** in line with revised BOQ and,
- c) Extension of due date of tender upto 23-11-2023,
- d) Bidders shall submit their offer on tender box as per clause-4 of STC.

Note- Commercial clarifications/ changes in Commercial terms of NIT based on pre-bid meeting discussions shall be issued separately.

All other terms and conditions for this tender enquiry shall remain unchanged.

Bidder to ensure submission of offer on or before due.

Note: Tender ID in CPP Portal is **2023_BHEL_29891_1**.

Thanking you

-----Sd/-----

Gaurav Agarwal
BHEL TBG, NOIDA

TECHNICAL CORRIGENDUM - 1 (765kV GIS Talabira)

09-Nov-23

SL	SECTION	DESCRIPTION	REMARKS
1	BPS	ANNEXURE_BOQ_765kV_GIS, Rev.2	ANNEXURE_BOQ_765kV_GIS has been updated. Updates has been highlighted Yellow. Bidder to follow the same.
2	BPS 1.20	ONLINE PARTIAL DISCHARGE MONITORING SYSTEM FOR 765KV GIS, Qty 1 Set	Qty updated in BPS
3	BPS 1.14	765KV SF6 TO AIR BUSHING (1 PHASE)	Qty updated in BPS
4	Nil	GIS BUILDING DIMENTION	<p>Size of GIS Hall are to be designed meeting technical requirements for GIS Layout and other subsystems. The same shall be finalised in contract stage. While designing following aspect may please be taken care off</p> <ol style="list-style-type: none"> 1. Reserved Space for RCC Column of GIS Building shall be minimum 1m x 1.5m. Actual shall be derived during detailed engineering stage. Bidder to indicate column in tender stage drawing for estimation purpose. 2. Column to Column centreline spacing along the length of building (w.r.t. centre lines) shall be limited to max 8.5 m 3. GIS Hall width shall be derived meeting all technical requirements i.e. clearance required around GIS as per TS, Required hook approach for offered GIS & relevant EOT crane & walkway functional spacing requirements during detailed engineering stage.

TECHNICAL CORRIGENDUM - 1 (765kV GIS Talabira)

09-Nov-23

SL	SECTION	DESCRIPTION	REMARKS
5		PLAN LAYOUT DRAWING	AutoCAD attached. This is tender stage indicative planned drawing for tendering purpose only. The same shall be finalised during detailed engineering stage.

[Signature]
9/11/2023
JDK

[Signature]
9.11.23.

SL	DESCRIPTION	UNIT	QTY	REMARKS
1	SUPPLY- GIS : 765KV, 50KA FOR 1S, GAS INSULATED SWITCHGEAR (GIS) AS PER TS			
1.01	765KV SF6 GIS GENERATOR TRAFORMER BAY	Set	3	3
1.02	766 KV, SF6 GIS ICT BAY	Set	2	2
1.03	765 KV, SF6 GIS LINE FEEDER BAY WITH PIR	Set	5	
1.04	765 KV, SF6 GIS BUS REACTOR BAY	Set	1	
1.05	765KV SF6 GIS TIE BAY WITH PIR	Set	3	
1.06	765KV SF6 GIS TIE BAY WITHOUT PIR	Set	4	
1.07	765 KV, SF6 GIS LINE REACTOR BAY	Set	2	
1.08	765KV SF6 GIS AUXILIARY BUSBAR MODULE FOR SPARE LINE REACTOR	Set	1	
1.09	765KV GIS BUS BAR MODULE AS PER SLD & TENCHNICAL SPECTIFCATION	Set	2	
1.10	765KV GIS BUS MEASUREMENT BAY INCLUDING LA, VT, DS & ES AS PER SLD & TENCHNICAL REQUIREMENT	Set	2	
1.11	PROVISION FOR FUTURE SWITCHABLE LINE REACTOR BAY INCLUDING INTERFACING MODULE AND EXTENDED MAIN BUS FOR INTERFACING	Set	2	ASSOCIATED WITH LINES SUNDARGARH SS LILO-01 & SUNDARGARH SS LILO-02

SL	DESCRIPTION	UNIT	QTY	REMARKS
1.12	765KV SF6 GIS ADAPTER BOX FOR EXTENSION OF GIS, SET OF 3 PHASE: END PIECE / INTERFACE MODULE WITH THE TEST LINK FOR FUTURE EXTENSION OF MAIN GIS BUSBAR / GIB	Set	4	Scope includes End Piece / Interface module with the test link for future extension of Bus bar module / GIB. The end piece module shall be designed in such a way so that future GIS module may be tested without extending voltage to existing bus by removing the test link.
1.13	765KV SINGLE PHASE, SF6 GAS INSULATED BUS DUCT (GIB) OUTSIDE GIS HALL ALONGWITH ASSOCIATED SUPPORT STRUCTURE & EARTHING	Meter	6500	
1.14	765KV SF6 TO AIR BUSHING (1 PHASE)	Nos.	40	
1.15	SF6 GAS REQUIRED FOR PLACING GIS INTO SUCCESSFUL OPERATION	Lot	1	
1.16	CONTROLLED SWITCHING DEVICE FOR 765 KV, 3-PH CIRCUIT BREAKER	Set	13	
1.17	LOCAL CONTROL CUBICLES (LCC)	Nos.	20	
1.18	STRUCTURE MATERIAL INCLUDING ANCHOR BOLTS, EMBEDDED ITEMS, RAILS AND/OR OTHER MATERIALS ETC.	Lot	1	
1.19	EARTHING MATERIALS INCLUDING HIGH FREQUENCY EARTHING	Lot	1	
1.20	ONLINE PARTIAL DISCHARGE MONITORING SYSTEM FOR 765KV GIS.	Set	0	

SL	DESCRIPTION	UNIT	QTY	REMARKS
1.21	CONTINUOUS ONLINE PARTIAL DISCHARGE MONITORING SYSTEM FOR 765KV GIS.	Set	1	On line partial discharge (PD) monitoring system as per IEC60270 shall be envisaged for continuous online monitoring . The number and location of these sensors shall be based on the laboratory test on typical design of GIS as per IEC recommendation of CIGRE Document No 654. (Application for sensitivity verification for PD detection system for GIS).
1.22	SF6 GAS PROCESSING UNIT	Set	1	
1.23	SF6 GAS LEAKAGE DETECTOR	Set	1	
1.24	BREAKER TEST KIT	Set	1	The Portable Circuit Breaker Motion Analyser of make Scope / PCI Ltd. / Programma / Baur Inst as per TS
1.25	CONTACT RESISTANCE MEASUREMENT SET SUITABLE FOR MICRO OHMS	Set	2	
2	SPARES- GIS : 765KV, 50KA FOR 1S, GAS INSULATED SWITCHGEAR (GIS) AS PER TS			
2.01	SPARE - O-RING AND GASKETS (ONE OF EACH TYPE & SIZE)	Set	3	
2.02	SPARE - SF6 GAS PRESSURE RELIEF DEVICES (ONE OF EACH TYPE & RATING ALONG WITH O'RINGS)	Set	2	
2.03	SPARE - SF6 GAS CYLINDER (20% OF TOTAL QUANTITY)	Set	1	
2.04	SPARE - MOLECULAR FILTER FOR SF6 GAS WITH FILTER BAGS (5% OF TOTAL QUANTITY)	Set	1	
2.05	SPARE - ALL TYPES OF CONTROL VALVES FOR SF6 (ONE OF EACH TYPE & RATING)	Nos.	3	

SL	DESCRIPTION	UNIT	QTY	REMARKS
2.06	SPARE - LOCKING DEVICE TO KEEP THE DISCONNECTORS /ISOLATORS AND EARTHING SWITCHES IN CLOSE OR OPEN POSITION IN CASE OF REMOVAL OF DRIVING MECHANISM	Nos.	3	
2.07	SPARE - SPARES FOR LOCAL CONTROL CABINET INCLUDING MCB, FUSES, TIMER, AUXILIARY RELAYS, CONTACTORS, PUSH BUTTONS, SWITCHES, LAMPS & ANNUNCIATION WINDOWS, TERMINAL BLOCKS (ONE OF EACH TYPE & RATING, SIZE, RATING & MAKE)	Nos.	2	
2.08	SPARE - SF6 TO AIR BUSHING COMPLETE WITH CONNECTORS (ONE OF EACH TYPE & RATING & RATING)	Nos.	1	
2.09	SPARE - SINGLE PHASE POTENTIAL TRANSFORMER (ONE OF EACH TYPE & RATING, ACCURACY CLASS, BURDEN)	Set	1	
2.1	SPARE - SINGLE PHASE CURRENT TRANSFORMER (ONE OF EACH TYPE & RATING, RATIO, ACCURACY CLASS, BURDEN) WITH ASSOCIATED ENCLOSURE AND PRIMARY CONDUCTOR COMPLETE IN ALLRESPECT	Set	1	
2.11	SPARE - EXPLOSION VENT DIAPHRAGMS (5% OF TOTAL POPULATION)	Set	1	
2.12	SPARE - BUS SUPPORT INSULATOR (5% OF TOTAL POPULATION)	Set	1	
2.13	SPARE - SURGE ARRESTOR (ONE OF EACH TYPE & RATING & RATING AND DISCHARGE CLASS)	Nos.	1	
2.14	SPARE - SURGE COUNTER WITH LEAKAGE CURRENT MONITOR	Nos.	1	
2.15	SPARE - 765 KV CIRCUIT BREAKER (BELOW LIST SHALL BE PROVIDED FOR 765 KV CIRCUIT BREAKER)			
2.15.1	CB SPARE - COMPLETE POLE ASSEMBLY (1 PHASE) OF CIRCUIT BREAKER OF EACH TYPE AND RATING COMPLETE WITH INTERRUPTER, MAIN CIRCUIT, ENCLOSURE, MARSHALLING BOX WITH OPERATING MECHANISM (APPLICABLE FOR CB WITHOUT PIR)	Set	1	
2.15.2	CB SPARE - COMPLETE POLE ASSEMBLY (1 PHASE) OF CIRCUIT BREAKER OF EACH TYPE AND RATING COMPLETE WITH INTERRUPTER, MAIN CIRCUIT, ENCLOSURE, MARSHALLING BOX WITH OPERATING MECHANISM (APPLICABLE FOR CB WITH PIR)	Set	1	
2.15.3	CB SPARE - CIRCUIT BREAKER CLOSING AND OPENING COIL ASSEMBLY (ONE OF EACH TYPE & RATING)	Set	2	

SL	DESCRIPTION	UNIT	QTY	REMARKS
2.15.4	CB SPARE - CIRCUIT BREAKER OPERATING MECHANISM (ONE OF EACH TYPE & RATING)	Set	1	
2.15.5	CB SPARE - CIRCUIT BREAKER OPERATION COUNTER (ONE OF EACH TYPE & RATING)	Nos.	3	
2.15.6	CB SPARE - AUXILIARY SWITCH ASSEMBLY (ONE OF EACH TYPE & RATING)	Nos.	3	
2.16	765 KV ISOLATOR / DISCONNECTOR, EARTH SWITCHES (BELOW LIST SHALL BE SEPARATELY PROVIDED FOR 765 KV GIS)			
2.16.01	SPARE - COMPLETE SET OF 3 NOS. OF SINGLE PHASE / ONE 3 PHASE ISOLATOR OF EACH TYPE , DIMENSION, CURRENT, & VOLTAGE RATING INCLUDING MAIN CIRCUIT, ENCLOSURE, DRIVING MECHANISM	Set	1	
2.16.02	SPARE - 3 NOS OF SINGLE PHASE / ONE 3 PHASE MAINTENANCE EARTH SWITCH OF EACH TYPE , DIMENSION, CURRENT, & VOLTAGE RATING INCLUDING MAIN CIRCUIT, ENCLOSURE, DRIVING MECHANISM	Set	1	
2.16.03	SPARE - 3 NOS OF SINGLE PHASE / ONE 3 PHASE FAST ACTING EARTH SWITCH OF EACH TYPE , DIMENSION, CURRENT, & VOLTAGE RATING INCLUDING MAIN CIRCUIT, ENCLOSURE, DRIVING MECHANISM	Set	1	
2.16.04	SPARE - OPEN & CLOSE CONTACTOR ASSEMBLY INCLUDING TIMER, INTERLOCKING COILS, KEY INTERLOCK, RELAYS, PUSH BUTTONS, INDICATING LAMPS, POWER CONTACTORS, RESISTER, FUSES, MCB FOR ONE COMPLETE DISCONNECTOR (3 PHASE) (ONE OF EACH TYPE & RATING)	Nos.	1	
2.16.05	SPARE - OPEN & CLOSE CONTACTOR ASSEMBLY INCLUDING TIMER, INTERLOCKING COILS, KEY INTERLOCK, RELAYS, PUSH BUTTONS, INDICATING LAMPS, POWER CONTACTORS, RESISTER, FUSES, MCB FOR ONE COMPLETE MAINTENANCE EARTH SWITCH (3 PHASE) (ONE OF EACH TYPE & RATING)	Nos.	1	
2.16.06	SPARE - OPEN & CLOSE CONTACTOR ASSEMBLY INCLUDING TIMER, INTERLOCKING COILS, KEY INTERLOCK, RELAYS, PUSH BUTTONS, INDICATING LAMPS, POWER CONTACTORS, RESISTER, FUSES, MCB FOR ONE COMPLETE FAST ACTING EARTH SWITCH (3 PHASE) (ONE OF EACH TYPE & RATING)	Nos.	1	
2.16.07	SPARE - ISOLATOR CONTACTS (ONE OF EACH TYPE & RATING & CURRENT RATING)	Set	1	

SL	DESCRIPTION	UNIT	QTY	REMARKS
2.16.08	SPARE - MAINTENANCE EARTH SWITCH CONTACTS (ONE OF EACH TYPE & RATING & CURRENT RATING)	Set	1	
2.16.09	SPARE - FAST ACTING EARTH SWITCH CONTACTS (ONE OF EACH TYPE & RATING & CURRENT RATING)	Set	1	
2.16.1	SPARE - ISOLATOR OPERATING MECHANISM (ONE OF EACH TYPE & RATING)	Nos.	3	
2.16.11	SPARE - MAINTENANCE EARTH SWITCH OPERATING MECHANISM (ONE OF EACH TYPE & RATING)	Nos.	3	
2.16.12	SPARE - FAST ACTING EARTH SWITCH OPERATING MECHANISM (ONE OF EACH TYPE & RATING)	Nos.	3	
2.16.13	SPARE - LIMIT SWITCH ASSEMBLY FOR DISCONNECTOR (ONE OF EACH TYPE & RATING)	Set	2	
2.16.14	SPARE - LIMIT SWITCH ASSEMBLY FOR MAINTENANCE EARTH SWITCH (ONE OF EACH TYPE & RATING)	Set	2	
2.16.15	SPARE - LIMIT SWITCH ASSEMBLY FOR FAST ACTING EARTH SWITCH(ONE OF EACH TYPE & RATING)	Set	2	
2.17	SPARE - STATIC FILTER(ADSORBENT) (5% OF TOTAL POPULATION)	Set	1	
2.18	SPARE - GAS BARRIER & RUPTURE DISK (ONE OF EACH TYPE & RATING) (5% OF TOTAL POPULATION)	Set	1	
2.19	SPARE - GAS DENSITY MONITOR (PRESSURE SWITCH WITH GAUGE) (5% OF TOTAL POPULATION)	Set	1	
2.2	SPARE - COUPLING DEVICES ONE OF EACH TYPE & RATING OF PRESSURE GAUGE CUM SWITCH FOR CONNECTING GAS HANDLING PLANT	Set	2	
3	SPARES- GIS : REFERENCE UNIT PRICE FOR ADDITION / DELETION OF SUPPLY ITEMS: (Unit Prices of Individual Equipment included here or in mandatory spares are required for any Addition/Deletion of Equipment and replacement of damaged items. Vendor to ensure that the unit prices have a logical relationship with prices of assemblies in main items. Quoting for unit prices is mandatory and shall be considered for evaluation)			
3.1	ADDITION / DELETION OF 1 PHASE 1 CORE GIS CURRENT TRANSFORMER (IF REQUIRED IN DETAILED ENGINEERING)	Set	12	
3.2	ADDITION / DELETION OF 1 PHASE 1 CORE / WINDING GIS VOLTAGE TRANSFORMER (IF REQUIRED IN DETAILED ENGINEERING)	Set	6	
4	SERVICES- GIS : 765KV, 50KA FOR 1S, GAS INSULATED SWITCHGEAR (GIS) AS PER TS			

SL	DESCRIPTION	UNIT	QTY	REMARKS
4.01	SERVICES- GIS : 765KV, SUPERVISION OF ERECTION OF GIS	Lot	1	Supervision of erection of 765kV GIS, complete in all respect including LCC. It also includes supervision of unloading & verification of materials for proper storage at site. In the event of changes in scope, payment shall be made on pro-rata basis of circuit breaker bays only. This includes services for complete GIS system excluding GIB & SAB.
4.02	SERVICES- GIS : 765KV, SUPERVISION OF ERECTION OF GAS INSULATED BUS DUCT	Set	1	
4.03	SERVICES- GIS : 765KV, SUPERVISION OF ERECTION OF SF6 TO AIR BUSHING	Set	40	Single phase SF6 Bushing.
4.04	SERVICES- GIS : 765KV, TESTING & COMMISSIONING OF GIS	Lot	1	Testing and commissioning of complete 765kV GIS system is to be executed by contractor (excluding HV Test which is covered in a separate line item below). All testing instruments, kits, T&P etc. are to be arranged by contractor on returnable basis. Please refer relevant section of technical specification for details. (This also includes Testing & commissioning of GIB, SAB & CSD etc complete in all aspect)
4.05	SERVICES- GIS : 765KV, FINAL SUCCESSFUL HV/ POWER FREQUENCY TESTING OF GIS INCLUDING ARRANGING OF HV TEST KIT ALONG WITH OPERATOR	Lot	1	Carrying out successful HV/ Power Frequency Testing of GIS as per IEC including Arrangement of HV Test kit (on returnable basis) shall be in scope of bidder, which includes charges HV test kit with operator, accessories & tools required for completion of HV testing. Bays may be commissioned separately.
4.06	SERVICES- GIS : STUDIES INSULATION CO-ORDINATION VFTO REPORT e.t.c. complete	Lot	1	Complete study as per technical specification
4.07	SERVICES- GIS : TRAINING AT GIS FACTORY	Days	2	

SL	DESCRIPTION	UNIT	QTY	REMARKS
4.08	SERVICES- GIS : TRAINING AT SITE	Days	2	
5	SERVICES- GIS : REFERENCE UNIT PRICE FOR ADDITION / DELETION OF SERVICES: (UNIT PRICES OF INDIVIDUAL SERVICES INCLUDED HERE ARE REQUIRED FOR ANY ADDITION/DELETION OF EQUIPMENT AND REPLACEMENT OF DAMAGED ITEMS. VENDOR TO ENSURE THAT THE UNIT PRICES HAVE A LOGICAL RELATIONSHIP WITH PRICES OF ASSEMBLIES IN MAIN ITEMS. QUOTING FOR UNIT PRICES IS MANDATORY AND SHALL BE CONSIDERED FOR EVALUATION)			
5.1	SERVICES- GIS : REF. UNIT PRICE OF GIS INDIVIDUAL ITEM/ EQUIPMENT - SERVICES FOR SUPERVISION OF ERECTION OF GIS	MANDAY	10	Charges for repetition of services - (if required due to reasons not attributed to the contractor) This item will be executed only if repetition of services is required by BHEL.
5.2	SERVICES- GIS : REF. UNIT PRICE OF GIS INDIVIDUAL ITEM/ EQUIPMENT - SERVICES FOR TESTING & COMMISSIONING OF GIS	MANDAY	10	Charges for repetition of services - (if required due to reasons not attributed to the contractor) This item will be executed only if repetition of services is required by BHEL.
5.3	SERVICES- GIS : 765KV, REF. UNIT PRICE OF GIS INDIVIDUAL ITEM/ EQUIPMENT - CHARGES OF HV TEST KIT WITH OPERATOR	Lot	1	Additional HV test kit charges including charges of operator, HV test kit, accessories & tools required for completion of HV test (Dielectric Test after installation of GIS). This item is executed only if repetition/ additional HV Test is required by BHEL i.e. post successful commissioning of GIS. (if required due to reasons not attributed to the contractor)

TECHNICAL CLARIFICATION FOR 765kV GIS - 1

S.No	Reference Document	Reference Clause/DocNo.	Technical Issue	Customer's Requirement	Bidder's Remarks	BHEL Clarification 09/11/2023
1	PriceBid Format	Sr.No. 1.18	Anchor bolts	STRUCTURE MATERIAL INCLUDING ANCHOR BOLTS, EMBEDDED ITEMS, RAILS AND/ OR OTHER MATERIALS ETC.	We would like to inform you that, Anchor bolts, Embedded rails will be in EPC scope of supply. Kindly accept the same.	Technical Specification is in order. Please comply the same. All structure materials including Mechanical Anchor & Chemical anchor as per design requirements are in bidder's scope
2	PriceBid Format (765 kV)	Sr. No.1.20 & Sr. No.1.21	-	1.20.- ONLINE PARTIAL DISCHARGE MONITORING SYSTEM FOR 765KV GIS. 1.21 - CONTINUOUS ONLINE PARTIAL DISCHARGE MONITORING SYSTEM FOR 765KV GIS.	We would like to inform you that, item mentioned in adjacent cell are exactly same which is Online partial Discharge monitoring system. Hence we are considering only one line item. Kindly confirm the same.	Noted, please refer technical corrigendum-1
3	Price Bid Format (765 kV)	Sr. No. 1.14	Bushing Quantity	765KV SF6 TO AIR BUSHING (1 PHASE)- 45 Nos	We would like to inform you that, there is an discrepancy for bushing quantity. Generator transformer - 9 No. Bushing. ICT bay - 6 No. Bushing. Line bay - 15 No. Bushing. Bus reactor bay - 3 No. Bushing. Line reactor bay - 6 No. Bushing. Also 1 No. of spare line reactor bushing require. This means total 40 Nos. of bushings are required. Kindly confirm the same.	Noted, please refer technical corrigendum-1
4	TechnicalSpecification	P. No.35/231	-	-	We would like to inform you that for Aux bus bar 2 HES are shown in customer SLD. Whereas for AUX bus sigle earth switch is sufficient. Kindly accept the same.	Noted, subject to customer approval during contract stage
4	TechnicalSpecification	Sr. NO. 2.02.01	line bays	# iii) Line Bays with switchable reactors : 4 iv) Bus-reactor Bay : 1 v) Adapter box for extension of GIS vi) Space for one (1) Dia of future GT-4 Bay viii) Spare reactor bay with switchable reactors # (ii) Line bays with switchable reactors -2 Line bays without switchable reactors -2	We would like to inform you that, there is an discrepancy in Boq and technical specification . In the scope of supply are 5 no. of line bays. We are considering 2 No. of line bay with S/W line reactor. And 3 no. of line bay without S/W line reactor. Kindly accept the same .	Number of Bays indicated in SLD & Bid price schedule shall prevail
5	-	-	Dimensions	Not provided	We would like to inform you that, we have not received the building dimensions of 765kV & 400 kV. Kindly provide the same.	Noted, please refer technical corrigendum-1

<i>S.No</i>	<i>Reference Document</i>	<i>Reference Clause/DocNo.</i>	<i>Technical Issue</i>	<i>Customer's Requirement</i>	<i>Bidder's Remarks</i>	<i>BHEL Clarification 09/11/2023</i>
6	Volume-II-F/2	Section-XII Cl. 3.06.00	Studies	The contractor shall be fully responsible for carrying out all co-ordination & liaison work as may be required.	We would like to inform you that, the clause does not contain exact information for studies to be performed. Kindly provide the exact details.	Coordination with Statutory Bodies and Outside Agencies not relevant to GIS manufacturing NOT in GIS manufacturer's scope
7	Volume-II-F/2	Section-XII Cl. 5.01.01 18 e	Circuit breaker operational requirement	Noise Level - As per IEC 61672	We would like to inform you that, we follow NEMA standards for the noise level. Kindly accept the same.	Bidder to comply technical specification. Further clarification shall be subject to customer approval during contract stage
8	Volume-II-F/2	Section-XII Cl. 5.01.03 3 Cl. 5.01.04 12 Cl. 01.05 8	Voltage Transformer, Disconnecter & Earthing switch	The bus bar VT shall be connected through hand operated isolators, which are to be provided with padlock facilities and padlocks.	We would like to inform you that, we shall provide the provision for padlocking. However padlocks shall be EPC scope of supply. Also We will provide motorised operating Disconnecting switch. Kindly accept the same.	motorised operating Disconnecting switch is accepted subject to customer approval. Padlock facilities and padlock are in bidder's scope as per TS
9	Volume-II-F/2	Section-XII Cl. 5.01.17	Grounding of GIS	Refer clause 5.01.17 Point 1 & 2	We would like to inform you that, we shall supply earthing material from GIS equipment to nearest earth riser only. The supply of earthing material below FFL shall be complete EPC scope. Kindly accept the same.	Section-1 & Section-XII Cl. 5.01.17 are to be read together for bidder's scope. Please comply technical specification.
10	Volume-II-F/2	Section-XII Cl. 7.03.00 e, g & x	Documents and drawings submission	g) Design calculations in support of selection of equipment rating and system design x) Relay Setting and co-ordination Insulation coordination study report, Very fast transient over voltages (VFTO) Report	g. Design calculation are Hyosung confidential and can not be submitted. x. The mentioned studies are under EPC scope of supply. Kindly accept the same.	g) noted, subject to customer approval during contract stage x) Relay settling & co ordination not in bidder's scope x) Insulation coordination study report, Very fast transient over voltages (VFTO) Report are in bidder's scope
11	Volume-II-F/2	-	System Parameters	Maximun RIV for frequency between 0.5 to 2MHz in open and close condition (micro volt) For 765kV GIS 1000 at 320kVrms	We would like to inform you that, our GIS is type tested as per the IEC standards. We shall confirm the mentioned parameter as per the same, Kindly accept the same.	Please refer Annexure-A System Parameters Maximum radio interference voltage for frequency between 0.5 to 2MHz in open & close condition (Micro volt): 2500 (at 508kV rms)
12	Volume-II-F/2	-	System Parameters	Noise level -dB	We would like to inform you that, we follow NEMA standards for the noise level. Kindly accept the same.	Noise level - as per IEC 61672. Please Refer 5.01.01 Circuit Breakers 18 e). Bidder to comply the same

S.No	Reference Document	Reference Clause/DocNo.	Technical Issue	Customer's Requirement	Bidder's Remarks	BHEL Clarification 09/11/2023
13	Volume-II-F/2	-	System Parameters	Material of enclosure - Porcelain	We would like to inform you that, we shall provide the composite type SF6 to Air bushing. The composite bushing is more advantageous over porcelain. Kindly accept the same.	Noted Subject to customer approval during detailed engineering stage
14	Volume-II-F/2	-	-	The scheme for all protections, controls, indications, interlocking, metering, AC distribution and all other schemes shall be prepared in such a way that cables shall be laid in radial pattern.	We would like to inform you that, All protections, controls, indications, interlocking, metering, AC distribution cables will be in EPC scope.	Please refer Section-1 Clause 7 for scope of cable. Bidder to pl comply.

Plot plant drawing: 18A03-DWG-M-002A & SLD Drawing: 18A03-DWG-E-0002 Rev1						
15	Technical specification pg 34		Plot Plan Drawing: 18A03-DWG-M-002A		The given pdf file of plot plan drawing does not have dimensions to scale. Please provide AutoCAD format of layout drawing to obtain precise scaling and bushing termination points for busduct routing.	Attached
16	Technical specification pg 34		Plot Plan Drawing: 18A03-DWG-M-002A, SLD Drawing: 18A03-DWG-E-0002 Rev1		Bay sequence indicated in given SLD and given layout differs. Since layout is given, we understand bay sequence to follow as per customer given layout. Please clarify. (If bay sequence as per SLD to follow, we request to provide updated layout with bay sequence as per SLD in layout).	Please refer Section-1 IV.1 Bidder to note that number of 765 kV bays / breakers shall be as per SLD. Plot plan Layout is indicative and shall be finalized during detailed engineering stage. Shall be shared with successful bidder during contract stage
17	SLD given & Spec:Vol.II.F2/Sec-XII 5.01.11 pg 35		Gas barriers shall be provided in line with Gas Single Line Diagram (DWG.No.18A03-DWG-E-0002 R1) as a minimum requirement and to meet service continuity requirements		Gas barriers shall be provided as per GIS manufacturer's type tested design, however will meet the service continuity requirements.	Not agreed. Bidder to please follow tech specification
Bid price Format - BOQ1						
18	BPS 1.11		Provision for Future Switchable Line Reactory bay including interfacing module and Extended Main bus for interfacing		As per customer given SLD 18A03-DWG-E-0002 Rev1, we observed that Dia 1 and Dia 2 requested for future extension of switchable LR. It is not practically feasible to provide future extension between the present scope bay connections. Hence we request you to consider Future switchable LR for Dia 1 & Dia 2 (Sundargarh LILO-01&02) in present scope.	Not agreed. Bidder to please follow tech specification.
19	BPS 1.14		765kV SF6 to Air Bushing (1Phase) - 45Nos		Considering one number 1Ph Aux.bus for reactor, the bushing quantity shall be 46nos.Please clarify.	Please refer technical corrigendum-1. BPS shall prevail
0.2	BPS 1.20,1.21		Online Partial discharge monitoring system for 765kV GIS Continuous Online Partial Discharge monitoring system for 765kV GIS		In BPS Item 1.20 & 1.21 represents the same item. Please clarify.	Please refer technical corrigendum-1.
21	BPS 1.24		Breaker Test kit - 1Set		We understand 1no CB operational analyser of reputed make to offer under this item. Please clarify.	Please refer Page 19 of 22 Vol. II-F1/Section-XII Elec. Lab Instruments & Workshop Electricals. The Portable Circuit Breaker Motion Analyser is to be supplied of make Scope / PCI Ltd. / Programma / Baur Inst.

S.No	Reference Document	Reference Clause/DocNo.	Technical Issue	Customer's Requirement	Bidder's Remarks	BHEL Clarification 09/11/2023
					Insulation co-ordination study is excluded from GIS supplier scope. Necessary input require from GIS side shall be provided to EPC contractor during order stage to perform insulation co-ordination study. Relevant Type test reports shall be submitted as the same implies the VFTO withstand as per IEC 62271-102.	Not agreed. Bidder to please comply the technical specification. Not agreed. Bidder to please comply the technical specification.
22		BPS 4.06	Insulation Co-ordination VFTO Report			
23		BPS 4.07,4.08	Training at GIS Factory - 2Days, Training at Site - 2Days		2Days for 5 person for training at factory and at site.	Not agreed. Batch of trainee shall be decided during contract stage in consultation with customer.
Specification: Vol.II-F2 / Section-XII						
24		2.02.01 pg 2/116 & 4.23.00 pg 15/116	765kV GIS shall have following bays: v) Adapter box for extension of GIS Each line up of switchgear shall be suitable and prepared for future extension on either end.....		Future Extension interface enclosure suitable for GE make GIS shall be offered in one end of the busbar.	Not agreed. Bidder to follow technical specification. Details of scope indicated in BOQ
25		5.01.12 pg 35/116	Gas Monitoring Devices: Temperature-compensated two(2) independent gas density monitoring devices shall be provided for each gas compartment to improve the reliability.		As per our type tested design, we propose one No. temperature compensated density switch for each compartment. Reliability of density switches are ensured during site testing & during periodic maintenance.	Not agreed. Bidder to please comply the technical specification. However matter may be further discussed with customer during contract stage and subject to customer approval.
26		5.02.05 pg 39/116	Local control cabinet for GIS: All terminals shall be of stud and nut type and mounted on DIN channels		The Stud type terminal block shall be offered for CT&PT control circuits. All other control circuits shall be provided with Pin type terminal blocks.	Not agreed. Bidder to please comply the technical specification.
27		6.02.02 c) pg 106/116	Routine Tests: Atleast one local control cubicle(LCC) shall be tested together with the GIS during factory acceptance tests.		LCC shall be tested with test simulator at factory. LCCs shall be tested with GIS during commissioning.	Not agreed. Bidder to please comply the technical specification.
28		6.02.02 c) pg 106/116	Routine Tests: Chattering time of the arc contact shall be measured and recorded at no-load operations.		Not applicable for offered GIS CB.	Noted. Subject to customer approval during contract stage
29		Annexure-B pg 111/116	22.Noise level - 48 dB		Noise level shall be ≥ 100 dB during switching of CB.	Noise level - as per IEC 61672. Please Refer 5.01.01 Circuit Breakers 18 e)
30		Annexure-B pg 111/116	24. Max. SF6 operating Pressure ≤ 8.5		SF6 operating pressure should be relative to the proposed GIS	Noted. Subject to customer approval during contract stage
31		Annexure-B pg 112/116	High Voltage Outdoor Bushing (Porcelain Type)		765kV GIS SF6 to airbushing shall be composite type.	Noted. Subject to customer approval during contract stage

Tender Inviting Authority: BHEL TBG NOIDA

Name of Work: 765KV GIS for NLC Talabira TPS

Enquiry/NIT No: NIT No.77851_ Enquiry No. 61Q2400198 Dated 30-10-2023

Name of the Bidder/ Bidding Firm / Company :	
--	--

PRICE SCHEDULE
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Quoted Currency in INR / Other Currency	Unit RATE In Figures To be entered by the Bidder in Rs. P	GST (in Percentage)	GST Amount (Unit Rate*Quantity* GST) Rs. P	Unit Freight & Insurance Charges in Rs. P	GST (in Percentage)	GST Amount on F&I (Unit Rate*Quantity*GST) Rs. P	HSN / SAC Code	TOTAL Ex-Works + F & I AMOUNT excluding GST in Rs. P	TOTAL Ex-Works + F & I AMOUNT including GST in Rs. P	TOTAL AMOUNT in Words
1	2	3	4	5	12	13	14	15	16	20	21	51	53	54	55
1.01	765KV SF6 GIS GENERATOR TRAFORMER BAY	item1	3	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.02	766 KV, SF6 GIS ICT BAY	item2	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.03	765 KV, SF6 GIS LINE FEEDER BAY WITH PIR	item3	5	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.04	765 KV, SF6 GIS BUS REACTOR BAY	item4	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.05	765KV SF6 GIS TIE BAY WITH PIR	item5	3	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.06	765KV SF6 GIS TIE BAY WITHOUT PIR	item6	4	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.07	765 KV, SF6 GIS LINE REACTOR BAY	item7	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.08	765KV SF6 GIS AUXILIARY BUSBAR MODULE FOR SPARE LINE REACTOR	item8	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.09	765KV GIS BUS BAR MODULE AS PER SLD & TENCHNICAL SPECTIFCATION	item9	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.10	765KV GIS BUS MEASUREMENT BAY INCLUDING LA, VT, DS & ES AS PER SLD & TENCHNICAL REQUIREMENT	item10	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.11	PROVISION FOR FUTURE SWITCHABLE LINE REACTOR BAY INCLUDING INTERFACING MODULE AND EXTENDED MAIN BUS FOR INTERFACING	item11	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.12	765KV SF6 GIS ADAPTER BOX FOR EXTENSION OF GIS, SET OF 3 PHASE: END PIECE / INTERFACE MODULE WITH THE TEST LINK FOR FUTURE EXTENSION OF MAIN GIS BUSBAR / GIB	item12	4	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.13	765KV SINGLE PHASE, SF6 GAS INSULATED BUS DUCT (GIB) OUTSIDE GIS HALL ALONGWITH ASSOCIATED SUPPORT STRUCTURE & EARTHING	item13	6500	Meter	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.14	765KV SF6 TO AIR BUSHING (1 PHASE)	item14	40	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only

Tender Inviting Authority: BHEL TBG NOIDA

Name of Work: 765KV GIS for NLC Talabira TPS

Enquiry/NIT No: NIT No.77851_Enquiry No. 61Q2400198 Dated 30-10-2023

Name of the Bidder/ Bidding Firm / Company :	
--	--

PRICE SCHEDULE
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Quoted Currency in INR / Other Currency	Unit RATE In Figures To be entered by the Bidder in Rs. P	GST (in Percentage)	GST Amount (Unit Rate*Quantity* GST) Rs. P	Unit Freight & Insurance Charges in Rs. P	GST (in Percentage)	GST Amount on F&I (Unit Rate*Quantity*GST) Rs. P	HSN / SAC Code	TOTAL Ex-Works + F & I AMOUNT excluding GST in Rs. P	TOTAL Ex-Works + F & I AMOUNT including GST in Rs. P	TOTAL AMOUNT in Words
1	2	3	4	5	12	13	14	15	16	20	21	51	53	54	55
1.15	SF6 GAS REQUIRED FOR PLACING GIS INTO SUCCESSFUL OPERATION	item15	1	Lot	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.16	CONTROLLED SWITCHING DEVICE FOR 765 KV, 3-PH CIRCUIT BREAKER	item16	13	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.17	LOCAL CONTROL CUBICLES (LCC)	item17	20	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.18	STRUCTURE MATERIAL INCLUDING ANCHOR BOLTS, EMBEDDED ITEMS, RAILS AND/ OR OTHER MATERIALS ETC.	item18	1	Lot	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.19	EARTHING MATERIALS INCLUDING HIGH FREQUENCY EARTHING	item19	1	Lot	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.20	ONLINE PARTIAL DISCHARGE MONITORING SYSTEM FOR 765KV GIS.	item20	0	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.21	CONTINUOUS ONLINE PARTIAL DISCHARGE MONITORING SYSTEM FOR 765KV GIS.	item21	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.22	SF6 GAS PROCESSING UNIT	item22	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.23	SF6 GAS LEAKAGE DETECTOR	item23	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.24	BREAKER TEST KIT	item24	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
1.25	CONTACT RESISTANCE MEASUREMENT SET SUITABLE FOR MICRO OHMS	item25	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.01	SPARE - O-RING AND GASKETS (ONE OF EACH TYPE & SIZE)	item26	3	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.02	SPARE - SF6 GAS PRESSURE RELIEF DEVICES (ONE OF EACH TYPE & RATING ALONG WITH O'RINGS)	item27	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.03	SPARE - SF6 GAS CYLINDER (20% OF TOTAL QUANTITY)	item28	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only

Tender Inviting Authority: BHEL TBG NOIDA

Name of Work: 765kV GIS for NLC Talabira TPS

Enquiry/NIT No: NIT No.77851_Enquiry No. 61Q2400198 Dated 30-10-2023

Name of the Bidder/ Bidding Firm / Company :	
--	--

PRICE SCHEDULE
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Quoted Currency in INR / Other Currency	Unit RATE In Figures To be entered by the Bidder in Rs. P	GST (in Percentage)	GST Amount (Unit Rate*Quantity* GST) Rs. P	Unit Freight & Insurance Charges in Rs. P	GST (in Percentage)	GST Amount on F&I (Unit Rate*Quantity*GST) Rs. P	HSN / SAC Code	TOTAL Ex-Works + F & I AMOUNT excluding GST in Rs. P	TOTAL Ex-Works + F & I AMOUNT including GST in Rs. P	TOTAL AMOUNT in Words
1	2	3	4	5	12	13	14	15	16	20	21	51	53	54	55
2.04	SPARE - MOLECULAR FILTER FOR SF6 GAS WITH FILTER BAGS (5% OF TOTAL QUANTITY)	item29	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.05	SPARE - ALL TYPES OF CONTROL VALVES FOR SF6 (ONE OF EACH TYPE & RATING)	item30	3	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.06	SPARE - LOCKING DEVICE TO KEEP THE DISCONNECTORS /ISOLATORS AND EARTHING SWITCHES IN CLOSE OR OPEN POSITION IN CASE OF REMOVAL OF DRIVING MECHANISM	item31	3	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.07	SPARE - SPARES FOR LOCAL CONTROL CABINET INCLUDING MCB, FUSES, TIMER, AUXILIARY RELAYS, CONTACTORS, PUSH BUTTONS, SWITCHES, LAMPS & ANNUNCIATION WINDOWS, TERMINAL BLOCKS (ONE OF EACH TYPE & RATING, SIZE, RATING & MAKE)	item32	2	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.08	SPARE - SF6 TO AIR BUSHING COMPLETE WITH CONNECTORS (ONE OF EACH TYPE & RATING & RATING)	item33	1	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.09	SPARE - SINGLE PHASE POTENTIAL TRANSFORMER (ONE OF EACH TYPE & RATING, ACCURACY CLASS, BURDEN)	item34	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1	SPARE - SINGLE PHASE CURRENT TRANSFORMER (ONE OF EACH TYPE & RATING, RATIO, ACCURACY CLASS, BURDEN) WITH ASSOCIATED ENCLOSURE AND PRIMARY CONDUCTOR COMPLETE IN	item35	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.11	SPARE - EXPLOSION VENT DIAPHRAGMS (5% OF TOTAL POPULATION)	item36	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.12	SPARE - BUS SUPPORT INSULATOR (5% OF TOTAL POPULATION)	item37	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.13	SPARE - SURGE ARRESTOR (ONE OF EACH TYPE & RATING & RATING AND DISCHARGE CLASS)	item38	1	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.14	SPARE - SURGE COUNTER WITH LEAKAGE CURRENT MONITOR	item39	1	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.151	CB SPARE - COMPLETE POLE ASSEMBLY (1 PHASE) OF CIRCUIT BREAKER OF EACH TYPE AND RATING COMPLETE WITH INTERRUPTER, MAIN CIRCUIT, ENCLOSURE, MARSHALLING BOX WITH OPERATING MECHANISM (APPLICABLE FOR CB WITHOUT PIR)	item40	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only

Tender Inviting Authority: BHEL TBG NOIDA

Name of Work: 765kV GIS for NLC Talabira TPS

Enquiry/NIT No: NIT No.77851_ Enquiry No. 61Q2400198 Dated 30-10-2023

Name of the Bidder/ Bidding Firm / Company :

PRICE SCHEDULE
 (This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Quoted Currency in INR / Other Currency	Unit RATE In Figures To be entered by the Bidder in Rs. P	GST (in Percentage)	GST Amount (Unit Rate*Quantity* GST) Rs. P	Unit Freight & Insurance Charges in Rs. P	GST (in Percentage)	GST Amount on F&I (Unit Rate*Quantity*GST) Rs. P	HSN / SAC Code	TOTAL Ex-Works + F & I AMOUNT excluding GST in Rs. P	TOTAL Ex-Works + F & I AMOUNT including GST in Rs. P	TOTAL AMOUNT In Words
1	2	3	4	5	12	13	14	15	16	20	21	51	53	54	55
2.152	CB SPARE - COMPLETE POLE ASSEMBLY (1 PHASE) OF CIRCUIT BREAKER OF EACH TYPE AND RATING COMPLETE WITH INTERRUPTER, MAIN CIRCUIT, ENCLOSURE, MARSHALLING BOX WITH OPERATING MECHANISM (APPLICABLE FOR CB WITH PIR)	item41	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.153	CB SPARE - CIRCUIT BREAKER CLOSING AND OPENING COIL ASSEMBLY (ONE OF EACH TYPE & RATING)	item42	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.154	CB SPARE - CIRCUIT BREAKER OPERATING MECHANISM (ONE OF EACH TYPE & RATING)	item43	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.155	CB SPARE - CIRCUIT BREAKER OPERATION COUNTER (ONE OF EACH TYPE & RATING)	item44	3	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.156	CB SPARE - AUXILIARY SWITCH ASSEMBLY (ONE OF EACH TYPE & RATING)	item45	3	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1601	SPARE - COMPLETE SET OF 3 NOS. OF SINGLE PHASE / ONE 3 PHASE ISOLATOR OF EACH TYPE , DIMENSION, CURRENT, & VOLTAGE RATING INCLUDING MAIN CIRCUIT, ENCLOSURE, DRIVING MECHANISM	item46	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1602	SPARE - 3 NOS OF SINGLE PHASE / ONE 3 PHASE MAINTENANCE EARTH SWITCH OF EACH TYPE , DIMENSION, CURRENT, & VOLTAGE RATING INCLUDING MAIN CIRCUIT, ENCLOSURE, DRIVING MECHANISM	item47	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1603	SPARE - 3 NOS OF SINGLE PHASE / ONE 3 PHASE FAST ACTING EARTH SWITCH OF EACH TYPE , DIMENSION, CURRENT, & VOLTAGE RATING INCLUDING MAIN CIRCUIT, ENCLOSURE, DRIVING MECHANISM	item48	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1604	SPARE - OPEN & CLOSE CONTACTOR ASSEMBLY INCLUDING TIMER, INTERLOCKING COILS, KEY INTERLOCK, RELAYS, PUSH BUTTONS, INDICATING LAMPS, POWER CONTACTORS, RESISTER, FUSES, MCB FOR ONE COMPLETE DISCONNECTOR (3 PHASE) (ONE OF EACH TYPE & RATING)	item49	1	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1605	SPARE - OPEN & CLOSE CONTACTOR ASSEMBLY INCLUDING TIMER, INTERLOCKING COILS, KEY INTERLOCK, RELAYS, PUSH BUTTONS, INDICATING LAMPS, POWER CONTACTORS, RESISTER, FUSES, MCB FOR ONE COMPLETE MAINTENANCE EARTH SWITCH (3 PHASE) (ONE OF EACH TYPE & RATING)	item50	1	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only

Tender Inviting Authority: BHEL TBG NOIDA

Name of Work: 765kV GIS for NLC Talabira TPS

Enquiry/NIT No: NIT No.77851_Enquiry No. 61Q2400198 Dated 30-10-2023

Name of the Bidder/ Bidding Firm / Company :	
--	--

PRICE SCHEDULE
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Quoted Currency in INR / Other Currency	Unit RATE In Figures To be entered by the Bidder in Rs. P	GST (in Percentage)	GST Amount (Unit Rate*Quantity* GST) Rs. P	Unit Freight & Insurance Charges in Rs. P	GST (in Percentage)	GST Amount on F&I (Unit Rate*Quantity*GST) Rs. P	HSN / SAC Code	TOTAL Ex-Works + F & I AMOUNT excluding GST in Rs. P	TOTAL Ex-Works + F & I AMOUNT including GST in Rs. P	TOTAL AMOUNT in Words
1	2	3	4	5	12	13	14	15	16	20	21	51	53	54	55
2.1606	SPARE - OPEN & CLOSE CONTACTOR ASSEMBLY INCLUDING TIMER, INTERLOCKING COILS, KEY INTERLOCK, RELAYS, PUSH BUTTONS, INDICATING LAMPS, POWER CONTACTORS, RESISTER, FUSES, MCB FOR ONE COMPLETE FAST ACTING EARTH SWITCH (3 PHASE) (ONE OF EACH TYPE & RATING)	item51	1	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1607	SPARE - ISOLATOR CONTACTS (ONE OF EACH TYPE & RATING & CURRENT RATING)	item52	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1608	SPARE - MAINTENANCE EARTH SWITCH CONTACTS (ONE OF EACH TYPE & RATING & CURRENT RATING)	item53	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1609	SPARE - FAST ACTING EARTH SWITCH CONTACTS (ONE OF EACH TYPE & RATING & CURRENT RATING)	item54	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.161	SPARE - ISOLATOR OPERATING MECHANISM (ONE OF EACH TYPE & RATING)	item55	3	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1611	SPARE - MAINTENANCE EARTH SWITCH OPERATING MECHANISM (ONE OF EACH TYPE & RATING)	item56	3	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1612	SPARE - FAST ACTING EARTH SWITCH OPERATING MECHANISM (ONE OF EACH TYPE & RATING)	item57	3	Nos.	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1613	SPARE - LIMIT SWITCH ASSEMBLY FOR DISCONNECTOR (ONE OF EACH TYPE & RATING)	item58	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.1614	SPARE - LIMIT SWITCH ASSEMBLY FOR MAINTENANCE EARTH SWITCH (ONE OF EACH TYPE & RATING)	item59	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only

Tender Inviting Authority: BHEL TBG NOIDA

Name of Work: 765KV GIS for NLC Talabira TPS

Enquiry/NIT No: NIT No.77851_Enquiry No. 61Q2400198 Dated 30-10-2023

Name of the Bidder/ Bidding Firm / Company :															
PRICE SCHEDULE (This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)															
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Quoted Currency in INR / Other Currency	Unit RATE In Figures To be entered by the Bidder in Rs. P	GST (in Percentage)	GST Amount (Unit Rate*Quantity* GST) Rs. P	Unit Freight & Insurance Charges in Rs. P	GST (in Percentage)	GST Amount on F&I (Unit Rate*Quantity*GST) Rs. P	HSN / SAC Code	TOTAL Ex-Works + F & I AMOUNT excluding GST in Rs. P	TOTAL Ex-Works + F & I AMOUNT including GST in Rs. P	TOTAL AMOUNT in Words
1	2	3	4	5	12	13	14	15	16	20	21	51	53	54	55
2.1615	SPARE - LIMIT SWITCH ASSEMBLY FOR FAST ACTING EARTH SWITCH(ONE OF EACH TYPE & RATING)	item60	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.17	SPARE - STATIC FILTER(ADSORBENT) (5% OF TOTAL POPULATION)	item61	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.18	SPARE - GAS BARRIER & RUPTURE DISK (ONE OF EACH TYPE & RATING) (5% OF TOTAL POPULATION)	item62	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.19	SPARE - GAS DENSITY MONITOR (PRESSURE SWITCH WITH GAUGE) (5% OF TOTAL POPULATION)	item63	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
2.2	SPARE - COUPLING DEVICES ONE OF EACH TYPE & RATING OF PRESSURE GAUGE CUM SWITCH FOR CONNECTING GAS HANDLING PLANT	item64	2	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
3.1	SPARES- GIS : REFERENCE UNIT PRICE FOR ADDITION / DELETION OF SUPPLY ITEMS ADDITION / DELETION OF 1 PHASE 1 CORE GIS CURRENT TRANSFORMER (IF REQUIRED IN DETAILED ENGINEERING)	item65	12	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
3.2	SPARES- GIS : REFERENCE UNIT PRICE FOR ADDITION / DELETION OF SUPPLY ITEMS ADDITION / DELETION OF 1 PHASE 1 CORE / WINDING GIS VOLTAGE TRANSFORMER (IF REQUIRED IN DETAILED ENGINEERING)	item66	6	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
4.01	SERVICES- GIS : 765KV, SUPERVISION OF ERECTION OF GIS	item67	1	Lot	INR			0.00			0.00		0.000	0.000	INR Zero Only
4.02	SERVICES- GIS : 765KV, SUPERVISION OF ERECTION OF GAS INSULATED BUS DUCT	item68	1	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
4.03	SERVICES- GIS : 765KV, SUPERVISION OF ERECTION OF SF6 TO AIR BUSHING	item69	40	Set	INR			0.00			0.00		0.000	0.000	INR Zero Only
4.04	SERVICES- GIS : 765KV, TESTING & COMMISSIONING OF GIS	item70	1	Lot	INR			0.00			0.00		0.000	0.000	INR Zero Only
4.05	SERVICES- GIS : 765KV, FINAL SUCCESSFUL HV/ POWER FREQUENCY TESTING OF GIS INCLUDING ARRANGING OF HV TEST KIT ALONG WITH OPERATOR	item71	1	Lot	INR			0.00			0.00		0.000	0.000	INR Zero Only
4.06	SERVICES- GIS : STUDIES INSULATION CO-ORDINATION VFTO REPORT e.t.c. complete	item72	1	Lot	INR			0.00			0.00		0.000	0.000	INR Zero Only
4.07	SERVICES- GIS : TRAINING AT GIS FACTORY	item73	2	Days	INR			0.00			0.00		0.000	0.000	INR Zero Only
4.08	SERVICES- GIS : TRAINING AT SITE	item74	2	Days	INR			0.00			0.00		0.000	0.000	INR Zero Only

Tender Inviting Authority: BHEL TBG NOIDA

Name of Work: 765kV GIS for NLC Talabira TPS

Enquiry/NIT No: NIT No.77851_ Enquiry No. 61Q2400198 Dated 30-10-2023

Name of the Bidder/ Bidding Firm / Company :															
PRICE SCHEDULE (This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)															
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Quoted Currency in INR / Other Currency	Unit RATE In Figures To be entered by the Bidder in Rs. P	GST (in Percentage)	GST Amount (Unit Rate*Quantity* GST) Rs. P	Unit Freight & Insurance Charges in Rs. P	GST (in Percentage)	GST Amount on F&I (Unit Rate*Quantity*GST) Rs. P	HSN / SAC Code	TOTAL Ex-Works + F & I AMOUNT excluding GST in Rs. P	TOTAL Ex-Works + F & I AMOUNT including GST in Rs. P	TOTAL AMOUNT In Words
1	2	3	4	5	12	13	14	15	16	20	21	51	53	54	55
5.1	SERVICES- GIS : REF. UNIT PRICE OF GIS INDIVIDUAL ITEM/ EQUIPMENT - SERVICES FOR SUPERVISION OF ERECTION OF GIS	item75	10	MANDAY	INR			0.00			0.00		0.000	0.000	INR Zero Only
5.2	SERVICES- GIS : REF. UNIT PRICE OF GIS INDIVIDUAL ITEM/ EQUIPMENT - SERVICES FOR TESTING & COMMISSIONING OF GIS	item76	10	MANDAY	INR			0.00			0.00		0.000	0.000	INR Zero Only
5.3	SERVICES- GIS : 765KV, REF. UNIT PRICE OF GIS INDIVIDUAL ITEM/ EQUIPMENT - CHARGES OF HV TEST KIT WITH OPERATOR	item77	1	Lot	INR			0.00			0.00		0.000	0.000	INR Zero Only
Total in Figures													0.000	0.000	Zero Only
oted Rate in Words		INR Zero Only													