



# 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

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## **CORRIGENDUM - 03 TO NIT NO-75838**

**Dated 16.08.2023**

**Subject: Corrigendum-03 to Tender enquiry for Pre-bid Tie up for Supply & Services of 400 kV & 220 KV GIS FOR POWERGRID\_SS30T PROJECT.**

Project : Powergrid\_SS30T (Greater Noida & Jalpura)  
Equipment / Item : SUPPLY & SERVICES OF 400KV & 220KV GIS  
Enquiry No/Date : 61G2400135 Dated 31-07-2023  
BHEL NIT NO : 75838  
**Original Tender due date : 11.08.2023**

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

- a) Issuance of technical pre-bid clarifications (enclosed)
- b) Extension of due date upto **21-08-2023, 11:00 Hrs.**

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\_27237\_1.**

Thanking you

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Gaurav Agarwal  
BHEL TBG, NOIDA

Supply & Services of 400 kV & 220 kV GIS and associated Equipment for POWERGRID Substation Package SS-30T Project				
NIT No. 75838 & Enquiry No. 61G2400135 dated July 31, 2023				
Sl. No.	Clause Ref.	Specification Clause	Pre-bid Query	BHEL Reply 14/08/2023
<b>Technical Specifications</b>				
17	Section-1 (Part A): 3. Note 4	Total contract value may vary up to ±30% at contract stage.	We understand that total contract value may vary up to ±15% which is in line with <b>PGCIL's SCC (Cl. No. GCC 33.2.3)</b> . Please confirm.	Please refer BHEL tender commercial conditions for applicable variations
18	Section-1 (Part A): 3. Notes 6 & 9	Length & route of GIB is purely indicative and same shall be finalized during detailed Engineering Stage.  Main Bus 1/2/Transfer Bus, etc. Gas insulated Bus Bars running across the length of the switchgear to interconnect each of the bay modules(as per layout) and necessary interfaces(as applicable under the technical requirement) is deemed inclusive in the scope.	For both sub-stations, layout drawings have not been shared. We understand that quoting GIB quantity as per Bid Price Schedule and BB quantities as per our indicative layout (which will be submitted along with our technical proposal for GIS building dimensions) is acceptable. Please confirm.	Technical specification is in order and please be followed.
19	Section-1 (Part A): 4. Note 3	Any change in bay pitch (distance between bays): In a case where shifting of GIS bays shall be called by BHEL (during contract stage) due to layout requirement/ cost optimization/ revision/ change in civil architectural requirement or due to expansion joint requirement in the GIS building, Bidder to incorporate the same with full compliance of technical requirement. Payment equivalent of BPS/ BOQ item under head "Gas Insulated Bus Duct" shall be operated for additional length of Main Bus, subject to such shifting is not attributed to bidder.	We request you to share AutoCAD layout drawing with column and beams marked to make precise offer without any assumptions.	The same shall be provided during contract stage.
20	Section-1 (Part A): 12	Site service activities shall be carried out at in stages as per requirement or front availability at site, and hence multiple visits for completion of work are envisaged as per site requirements hence any claim in this regards shall not be admissible on account of multiple mobilization or idling during project execution stage.	In order to take care of additional visits (for reasons not attributable to Seller) for stage wise activities, we suggest seeking per manday rates for erection supervision & testing/ commissioning supervision and hiring charges of HV test kit.	Technical specification is in order and please be followed.
21	Section-1 (Part A): 15	Packing of the equipment shall be suitable for long storage (minimum 1 year).	Packing of GIS and its accessories shall be suitable for 6 months storage subject to Buyer following Seller's storage instructions. We recommend to have closed storage for all GIS materials if stored beyond 6 months. Please confirm.	Technical specification is in order and please be followed.
22	Section-1 (Part B) - Section-Project: 3.1.2, 3.2.2	220 kV, 40kA for 1 Sec GIS Bays • 220kV ICT bays: 2 nos. • 220kV Bus-coupler Bay: 1 no • 400kV Line Bays: 2 nos.	We understand that 220kV Line Bays (2 nos.) are applicable & text "400kV" is a typographical error. Please confirm.	Noted

23	Section-1 (Part B) - ANNEXURE-III: I i) ii; II i) ii	<b>One (1) number 3-phase</b> , single pole, group operated safety grounding switches, complete with manual and motor driven operating mechanisms	GIS design being single phase encapsulated, isolator switches/ safety grounding switches/ high speed fault making grounding switches shall be single phase, single pole, group operated type & accordingly the quantities of these devices per bay shall be as given below. Please confirm.  <b>Three (3) number 1-phase</b> , single pole, group operated safety grounding switches, complete with manual and motor driven operating mechanisms	Noted subject to customer approval during contract stage
24	Section-1 (Part B) - ANNEXURE-III: I ii) i, I iii) i, I iv) i, I v) i; II ii) i, I iii) i, I iv) i	<b>One (1) number 3-phase</b> , SF6 insulated circuit breaker with/ without PIR, complete with operating mechanism	GIS being single phase encapsulated type, there shall be three (3) number 1-phase, SF6 insulated circuit breaker with/ without PIR, complete with operating mechanism. Please confirm.	Noted subject to customer approval during contract stage
25	Section-1 (Part B) - ANNEXURE-III: I) ii), iii) & iv)	<b>Three (3) numbers 3-phase</b> , single pole, group operated isolator switches, complete with manual and motor driven operating mechanisms  <b>Two (2) numbers 3-phase</b> , single pole, group operated safety grounding switches, complete with manual and motor driven operating mechanisms  <b>One (1) number 3-phase</b> , single pole, group operated high speed fault make grounding switch, complete with manual and motor driven operating mechanisms	GIS design being single phase encapsulated, isolator switches/ safety grounding switches/ high speed fault making grounding switches shall be single phase, single pole, group operated type & accordingly the quantities of these devices per bay shall be as given below. Please confirm.  <b>Nine (9) numbers 1-phase</b> , single pole, group operated isolator switches, complete with manual and motor driven operating mechanisms  <b>Six (6) numbers 1-phase</b> , single pole, group operated safety grounding switches, complete with manual and motor driven operating mechanisms  <b>Three (3) numbers 1-phase</b> , single pole, group operated high speed fault make grounding switch, complete with manual and motor driven operating mechanisms	Noted subject to customer approval during contract stage

26	Section-1 (Part B) - ANNEXURE-III: II) ii), iii) & iv)	<p><b>Three (3) numbers 3-phase</b>, single pole, group operated isolator switches, complete with manual and motor driven operating mechanisms</p> <p><b>Two (2) numbers 3-phase</b>, single pole, group operated safety grounding switches, complete with manual and motor driven operating mechanisms</p> <p><b>One (1) number 3-phase</b>, single pole, group operated high speed fault make grounding switch, complete with manual and motor driven operating mechanisms</p>	<p>GIS design being single phase encapsulated, isolator switches/ safety grounding switches/ high speed fault making grounding switches shall be single phase, single pole, group operated type &amp; accordingly the quantities of these devices per bay shall be as given below. Please confirm.</p> <p><b>Six (6) numbers 1-phase</b>, single pole, group operated <b>isolator switches cum safety grounding switches</b>, complete with manual and motor driven operating mechanisms</p> <p><b>Three (3) numbers 1-phase</b>, single pole, group operated isolator switches, complete with manual and motor driven operating mechanisms</p> <p><b>Three (3) numbers 1-phase</b>, single pole, group operated high speed fault make grounding switch, complete with manual and motor driven operating mechanisms</p>	Noted subject to customer approval during contract stage
27	Section-1 (Part B): Typical Module	765 kV and 400 kV (I-type layout)	As per corrigendum for 400 kV, we understand that double main bus bar scheme has to be followed. Please confirm.	Technical corrigendum shall supersede technical specification
28	Section-1 (Part B) - ANNEXURE_BoQ: 1.08 & 9.08; 2.06 & 10.02	<p>420kV, 3000A, 63kA, Single phase, SF6 Gas Insulated Bus Duct (GIB) outside GIS Hall along with associated support structure – 300 M</p> <p>245kV, 1600A, 40kA, Single phase, SF6 Gas Insulated Bus Duct(GIB) outside GIS Hall along with associated support structure - 200 M</p>	<p>We understand that quantity variations in GIB shall be settled commercially as per the quoted unit rates. Please confirm.</p> <p>Further, please clarify whether are road crossings or level differences at site. For better understanding, we request you to share AutoCAD layout drawing.</p>	<p>(1.) Noted</p> <p>(2.) The same shall be provided during contract stage.</p>
29	Section-1 (Part B) - ANNEXURE_BoQ: 3.08 & 11.08; 4.09 & 12.09	LOCKING DEVICE TO KEEP THE DISCONNECTORS (ISOLATORS) AND EARTHING/ FAST EARTHING SWITCHES IN CLOSE OR OPEN POSITION IN CASE OF REMOVAL OF THE DRIVING MECHANISM – 3 SET	We wish to clarify that upon removal of operating mechanism of disconnecter or earthing switch, the contacts cannot be disturbed from outside in our design of GIS. And hence, locking device is not applicable in our case. Please consider acceptance.	Technical specification is in order and please be followed. Further discussion may be carried out during contract stage and the same shall be subject to customer approval.
30	Section-1 (Part B) - ANNEXURE_BoQ: 3.21 to 3.30 & 3.32 to 3.34; 4.23 to 4.32 & 4.34 to 4.36  11.21 to 11.30 & 11.32 to 11.34; 12.23 to 12.36 & 12.38 to 12.40	<p>400KV GIS CIRCUIT BREAKER-HYDRAULIC OPERATING MECHANISM WITH DRIVE MOTOR (FOR HYDRAULIC OPERATED MECHANISM, IF APPLICABLE).....</p> <p>220KV GIS CIRCUIT BREAKER-HYDRAULIC OPERATING MECHANISM WITH DRIVE MOTOR (FOR HYDRAULIC OPERATED MECHANISM, IF APPLICABLE).....</p>	We wish to clarify that hydraulic mechanism & hydraulic-spring operated mechanism (including accessories) are not applicable for our design of GIS. And hence, the same cannot be quoted. Please consider acceptance.	Noted subject to customer approval during contract stage

31	Section-1 (Part B) - ANNEXURE_BoQ: 3.38, 3.39 & 3.40; 4.42, 4.43 & 4.44  11.38, 11.39 & 11.40; 12.42, 12.43 & 12.44	OPEN/ CLOSE CONTACTOR ASSEMBLY, TIMERS, KEY INTERLOCK, INTERLOCKING COILS, RELAYS, PUSH BUTTONS, INDICATING LAMPS, POWER CONTACTORS, RESISTORS, FUSES, MCBS & DRIVE CONTROL CARDS, ETC. (AS APPLICABLE) ONE OF EACH TYPE FOR ONE COMPLETE MOM BOX FOR DISCONNECTOR SWITCH, MAINTENANCE EARTH SWITCH, FAST EARTHING SWITCH	We wish to clarify that proposed interlocks are all electrical with pad locking arrangement. And hence, key interlock & drive control cards are not applicable which cannot be quoted. Please consider acceptance.	Technical specification is in order and please be followed. Further discussion may be carried out during contract stage and the same shall be subject to customer approval.
32	Section-2: 5.27/ 5.28	In addition to above suitable portable scissor lift shall be provided for access of distant portion of GIS installation.	We understand that items other than those listed in Bid Price Schedule shall remain excluded from Bidder's scope of supply. Please confirm.	Technical specification is in order and please be followed. Please also refer Section-1 clause 16 for SPECIFIC- EXCLUSIONS. Bidder to offer complete system as per technical specification.
33	Section-2: 27	TESTING & MAINTENACE EQUIPMENT	We understand that testing & maintenance equipment have to be quoted as per Bid Price Schedule. Please confirm.	Noted. Testing & Maintenance equipment shall be offered, as per relevant schedule of BPS.
34	Section-3: 6.2.1.2	One or more adequately rated thermostatically connected heaters shall be supplied to prevent condensation in any compartment. The heaters shall be installed in the compartment and electrical connections shall be made sufficiently away from below the heaters to minimize deterioration of supply wire insulation. The heaters shall be suitable to maintain the compartment temperature to prevent condensation.	Space heaters shall be provided in local control & operating mechanism cabinets only. Please consider acceptance.	Noted subject to customer approval during contract stage