



# ASSAM ELECTRICITY GRID CORPORATION LIMITED

## OFFICE OF THE MANAGING DIRECTOR

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No AEGCL/MD/Tech-721/SRSJ/200MVA/2017-18/23

Dtd :13.12.2017

### Corrigendum

IFB No. AEGCL/MD/Tech-721/SRSJ/200MVA/2017-18/5(IFB)

Bid Identification No.: AEGCL/MD/Tech-721/SRSJ/220MVA/2017-18/2(BID)

#### Amendment:

The following clauses of the bid identified against the above referred IFB and Bid identification no. is hereby amended to be read as follows:

#### 5.12.0 WARRANTY

5.12.2. The term "Period of Warranty" shall mean the period of **Thirty Six (36)** months from the date of issue of Completion Certificate in pursuance to SCC Clause 5.6.0.

#### Pre-Bid Query Clarification:

Pursuant to the pre-bid meeting held on 12.12.17, the following clarifications against pre-bid queries raised by intended bidders are to be noted:

Appendix- (A): "Pre-bid Clarification "enclosed.

Annexure- (I): Manufacturer Authorization- Format

#### Time Extension:

Tender submission deadline is extended up to 12:00 Hrs. of **21.12.2017**.

All other terms and conditions shall remain same

S/d

**Chief General Manager (T&T)**  
Assam Electricity Grid Corporation Ltd

**“Pre-bid Query Clarification “**

**Annexure- (A) :**

Sl No.	Vol	Sec	Clause no.	Clause Name	Tender Description	Clarification as sought for	Remarks By AEGCL
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)
1	V-2	sec 1	1.2.4	Scope	245kV, 3150A, 40kA for 1 Second, SF6 HGIS Transformer Feeder Bay Module including Numerical LCC suitable for MAIN-I & MAIN-II Bus & Transformer, comprising of SF6 gas insulated circuit breaker, current transformer, bus-bar disconnectors with common grounding switch, disconnecter with safety grounding switch(es), high speed fault making grounding switch , local control cubicle, SF6 gas monitoring system for complete bay	We feel Numerical Control Cabinet is not required, and hence we will be supplying normal LCC along with the equipment. We will not be providing FAES in our Hybrid switchgear. SF 6 gas monitoring system for complete bay is done by dial type density monitors. Pls confirm the acceptance of the same.	Accepted
2	V-2	sec 1	1.2.4	Scope	245kV, 3150A, 40kA for 1 Second, SF6 HGIS Transformer Feeder Bay Module suitable for MAIN-I & MAIN-II Bus & Transformer...	Based on the site visit done by ABB representatives on 14.11.2017, we understand that the 245 kV s/s is with Single MAIN & TRANSFER Bus bar configuration. Hence the 245 kV Hybrid module to be supplied shall be suitable for connection to Single MAIN Bus bar only(& not transfer bus). Kindly confirm the acceptance of the same.	The original design the bus configuration is Main-I & Main-II. Though presently it is being used as Main & Tr.; in the near future AEGCL intends to convert it into Main-I & Main-II
3	V-2	sec 1	1.2.4	Scope	245kV, 3150A, 40kA for 1 Second, SF6 HGIS Transformer Feeder Bay Module suitable for MAIN-I & MAIN-II Bus & Transformer...	The 245kV Hybrid module shall have the following single line diagram. Pls convey your acceptance of the same. (****)	SLD should be for Main-I & Main-II as stated in slno.2 above.
4	V-2	sec 1	1.2.4	Scope	145 kV , 2000 A , SF6 HGIS Transformer Bay Module including Numerical LCC ( from 220 kV ) , suitable for MAIN-I & MAIN-II Bus & Transformer, comprising of SF6 gas insulated circuit breaker, current transformer, bus-bar disconnectors with common grounding switch, disconnecter with safety grounding switch(es), high speed fault making grounding switch , local control cubicle, SF6 gas monitoring system for complete bay	We feel Numerical Control Cabinet is not required, and hence we will be supplying normal LCC along with the equipment. We will not be providing FAES in our Hybrid switchgear. SF 6 gas monitoring system for complete bay is done by dial type density monitors. Pls confirm the acceptance of the same.	Accepted

5	V-2	sec 1	1.2.4	Scope	145 kV, 2000 A, SF6 HGISTransformer Bay Module, suitable for MAIN-I & MAIN-II Bus & Transformer..	Based on the site visit done by ABB representatives on 14.11.2017, we understand that the 145 kV s/s is with Single MAIN & TRANSFER Bus bar configuration. Hence the 145 kV Hybrid module to be supplied shall be suitable for connection to Single MAIN Bus bar only(& not transfer bus). Kindly confirm the acceptance of the same.	Accepted
6	V-2	sec 1	1.2.4	Scope	145 kV, 2000 A, SF6 HGISTransformer Bay Module, suitable for MAIN-I & MAIN-II Bus & Transformer..	The 145kV Hybrid module shall have the following single line diagram. Pls convey your acceptance of the same.	Accepted
7	V-2	sec 1	1.16.3	Inspection & Inspection Certificate	If desired by AEGCL, the Contractor shall also carry out type tests as per applicable Standards for which AEGCL shall bear the expenses except in cases where such tests have to be carried out in pursuance to Clause 1.17.3.	The offered Hybrid switchgear module has already been type tested as per IEC 62271-205 which is the applicable standard for Hybrid Switchgear. Hence we have not considered any performance or repetition of type/special tests to be in our scope of work.	Valid Type Test Report shall have to be furnished
8	V-2	sec 1	1.16.5	Tests	Type Tests shall mean those tests, which are to be carried out to prove the process of manufacture and general conformity of the material to this Specification. These tests shall be carried out on samples prior to Commencement of commercial production against the order. The Bidder shall indicate his schedule for carrying out these tests.	The offered Hybrid switchgear module has already been type tested as per IEC 62271-205 which is the applicable standard for Hybrid Switchgear. Hence we have not considered any performance or repetition of type/special tests to be in our scope of work.	Factory type test/acceptance test shall have to be carried out in front of AEGCL's representative
9	V-2	sec 1	1.17.0	Type Test Reports	Such type test certificates shall be acceptable only if:- (a) Tests are conducted in an independent and well known testing laboratory, or (b) Tests are conducted in manufacturer's own laboratory. In this case (i) the laboratory must have ISO 9000 (or its equivalent) series certification; and (ii) tests have been witnessed by technically qualified representatives of earlier clients or purchaser.	The offered Hybrid switchgear module has already been type tested as per IEC 62271-205. The tests have been witnessed by	As stated in SI No. 7

10	V-2	sec 1	1.17.0	Type Test Reports	Type Test Reports older than five (5) years on the date of Technical bid opening shall not be accepted.	The offered Hybrid switchgear module has been type tested as per IEC 62271-205 which is the applicable standard for Hybrid switchgear. Hybrid switchgear being a high end technical product doesn't call for the frequent design modifications. Repetition of the type tests every five years is not feasible. Request to accept the type test validity for 10 years prior to bid due date. We have not considered repetition or performance of any type tests or special tests to be in our scope.	Furnish Type Test report. However, you are to certify clearly and in no uncertain terms that no design changes have been made in the offered product since the "type test" date for which the type test report is being submitted.
11	V-2	sec 1		Annexure-I	Schedule of Qty of (Supply) Not Applicable	Pls clarify whether the schedule is applicable or not.	Price Schedules are included separately in the e-tender.
12	V-2	sec 1	11	Annexure-I	Testing & Maintenance Equipment for GIS 21.1 SF 6 gas filling and evacuating plant - 1 set; Partial discharge monitoring system - 1 set; SF 6 gas leak detector - 1 no. ; Dew Point meter - 1 no.	All these spares are not in scope of PGHV-PASS.	Prices against the items are to be quoted.
13	V-2	sec 1		Annexure-III	SCHEDULE OF QUANTITY (MANDATORY SPARES)	Please furnish the details of spare to be quoted.	Mandatory Spares shall be as per the Price Schedules included in the e-tender
14	V-2	Sec 4	4.1.0	Scope	In general, the scope covers the design, engineering, manufacture, assembly, inspection and testing before dispatch, supply, transportation, delivery at given destination, unloading and storage at site, erection, testing and commissioning and putting into successful operation of integrated multifunctional "HYBRID" modules having combination of HV switchgears along with clamp connectors and accessories, tools, tackles, support structure, anchoring bolts, SF6 gas for first filling etc.	Transportation, delivery at given destination, unloading & storage at site, erection, testing and commissioning & putting into operation the Hybrid module is excluded from PGHV-PASS scope of work. Clamps, connectors, accessories, tools, tackles, anchor bolts is excluded from PGHV-PASS scope of supply. All the civil work activities are excluded from PGHV-PASS scope of work.	As per bid document, Erection, testing and commissioning shall be under the scope of the bidder
15	V-2	Sec 4	4.2.5	General Requirements	Foundation details with calculations shall be submitted with the offer	Foundation calculations shall be excluded from PGHV-PASS scope.	Foundation drawing shall have to be furnished.
16	V-2	Sec 4	4.2.15	General Requirements	Also the live part to ground clearance shall be maintained as per relevant standards for safe operating conditions.	The live part to ground clearance of the offered Hybrid switchgear shall be as per the tender purpose General Arrangement of Hybrid switchgear modules which is a part of our offer.	Accepted

17	V-2	Sec 4	4.2.23	General Requirements	Also portholes shall be provided at an easily accessible place to allow visual inspection of the position whether the component is closed or open.	View ports are provided to allow visual inspection of Isolator and Earthswitch position.	Accepted
18	V-2	Sec 4	4.2.24	General Requirements	Main contact position of all three poles must be indicated by directly activated auxiliary position switches with at least 8 NO + 8 NC contacts wired to terminal block in the local control panel for purchaser's use.	In Hybrid switchgear module, the electrical interlocks between breaker & isolators are in-built unlike conventional schemes. Hence, only 5NO+5NC contacts shall be provided for CB as per our standard design which shall be sufficient for purchaser's use. Requirement of additional contacts shall be decided during detail engineering at the time of execution and shall be provided via contact multiplier relays if required.	Accepted
19	V-2	Sec 4	4.2.26	General Requirements	The actual position of each disconnecter and each earthing switch shall be indicated by mechanically coupled auxiliary switches with at least 8 NO+ 8 NC contacts.	In Hybrid switchgear module, the electrical interlocks between breaker & isolators are in-built unlike conventional schemes. Hence, only 3NO+3NC contacts shall be provided for combined disconnecter/earthing switch as per our standard design which shall be sufficient for purchaser's use. Requirement of additional contacts shall be decided during detail engineering at the time of execution and shall be provided via contact multiplier relays if required. Pls confirm the acceptance for the same.	Accepted
20	V-2	Sec 4	4.2.30	General Requirements	The gas handling kit shall be supplied along with the module.	Gas Handling kit is excluded from PGHV-PASS scope of supply.	Prices against the items are to be quoted.
21	V-2	Sec 4	4.3.0	Standards	IEC 62271-203	The offered Hybrid switchgear complies to IEC 62271-205 which the applicable standard for Hybrid switchgear	Both IEC- 62271 and IEC-62271-105 shall be admissible
22	V-2	Sec 4	4.5.3	Interlocking systems	The CB can be operated also in case of the gas pressure drop down to the atmospheric value. In this case, the power frequency withstand voltage (1 min) must be guaranteed.	The requirement of Hybrid switchgear to operate below minimum functional pressure or at atmospheric pressure of SF 6 gas is not a service condition. as per IEC 62271-100 and hence cannot be confirmed.	Accepted

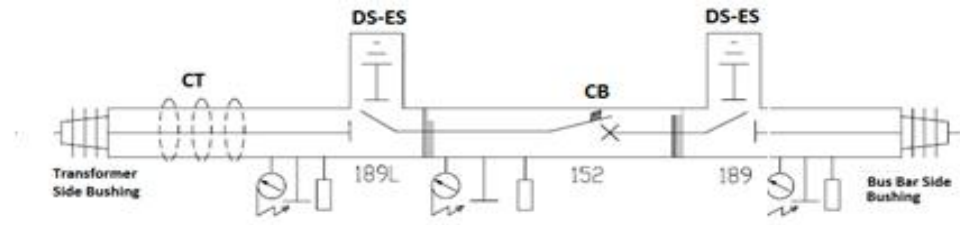
23	V-2	Sec 4	4.7.0	Type Tests	The type test reports shall not be older than five years and shall be valid up to expiry of validity of offer.	The offered Hybrid switchgear module has been type tested as per IEC 62271-205 which is the applicable standard for Hybrid switchgear. Hybrid switchgear being a high end technical product doesn't call for the frequent design modifications. Repetition of the type tests every five years is not feasible. Request to accept the type test validity for 10 years prior to bid due date. We have not considered repetition or performance of any type tests or special tests to be in our scope.	Accepted
24	V-2	Sec 4	4.7.0	Type Tests	Following type test reports from NABL laboratory, as specified in IEC standards (amended up to date) shall be submitted	Test reports from NABL/International laboratory shall be submitted. Pls confirm.	Accepted
25	V-2	Sec 4	4.7.0	Type Tests		The types tests shall be furnished as applicable as per IEC 62271-205 for Mixed technology switchgear (Clause 6.1 - Table 101). Following type tests shall not be applicable as per IEC 62271-205 for Mixed technology switchgear: - Additional tests on auxillary and control circuits - Tests to prove performance under thermal cycling and gas tightness tests. - Corrosion test on earthing connections - Tests to assess the effects of arcing due to an internal fault. - Tests on solid dielectric components(operating rods, spacers etc) Electromagnetic compatibility test is not applicable.	Accepted

26	V-2	Sec 4	4.8.0	Routine/Acceptance Testing		Following tests are not part of routine/acceptance tests for hybrid Switchgear as per IEC 62271-205: 1) PD Test 2) Pressure test of enclosures, 3) Pressure test on partitions. Since enclosures & Partitions are bought out items for us, the routine tests reports carried out at respective Vendor's facility can be submitted.	Accepted
27	V-2	Sec 4	4.10.0	Tests after installation of complete module at site	7) On site , Power frequency Voltage withstand test with PD test	We perform Power frequency voltage withstand test as part of our standard routine test plan at factory under controlled and dust free environment. Such factory pre-assembled tested modules are dispatched to site without requirement of any gas handling site assembly. Hence it is not envisaged to repeat these tests at site.	Standard procedure to carry out HV test as a pre-commissioning test. HV testing shall be applicable , in case of loss of gas pressure or exposure to any light part
28	V-2	Sec 4	4.10.0	Tests after installation of complete module at site	1) Dielectric Test on the main circuit 2) Dielectric Test on the auxiliary circuit	We perform Dielectric test on main and auxiliary circuit as part of our standard routine test plan at factory under controlled and dust free environment. Such factory pre-assembled tested modules are dispatched to site without requirement of any gas handling site assembly. Hence it is not envisaged to repeat these tests at site.	Accepted
29	V-2	Sec 4	4.10.0	Tests after installation of complete module at site	6) Gas quality Verifications	The gas for first filling in the Hybrid module is fresh SF 6 gas. We do not envisage the requirement of gas quality verifications at site. The certificate of purity from SF 6 gas supplier shall be submitted for scrutiny if required during the factory inspection.	Gas quality must be checked by Gas Analyser at site.

30	V-2	Sec 4	4.10.0	Tests after installation of complete module at site	10. Demonstration and operational compatibility with SCADA	SCADA system is connected to the C&R panel in the control room. Hence the operational compatibility with SCADA is to be checked with C&R panel.	Accepted
31	V-2	Sec 4	4.10.0	Tests after installation of complete module at site	Test on CTs	The modules are transported from factory to site with CTs fitted on it. Hence we don't envisage the requirement of CT testing at site. Pls confirm.	Shall have to be carried out
32	V-2	Sec 4	4.10.0	Tests after installation of complete module at site	Insulation Resistance measurement tests	Insulation resistance measurement test is not applicable for offered Hybrid switchgear as per IEC 62271-205.	Accepted
33	V-2	Sec 4	4.10.0	Tests after installation of complete module at site	Additional information	Following tests will be performed on the offered Hybrid modules at site. 1) Physical examination for complete unit 2) Check the contact alignment for Disconnecter. 3) SF6 gas filling & Leakage test. 4) Module local operation 5) Interlocks 6) Circuit Breaker operation timing test 7) Contact resistance measurement for Breaker Kindly confirm	Accepted
34	-	-	-	-	Additional information : Control Circuit, Motor circuit and auxiliary supply voltage values.	Please furnish the control circuit Voltage, motor voltage & auxiliary supply voltage.	
35	-	-	-	-	Additional Information : Qualification Requirement	In line with the advisory issued by Central Electricity Authority, Delhi pertaining to procurement of equipment for domestically funded project, we would request "Make in India" to be incorporated in the tender conditions. We request to pls incorporate the clause that the 132 kV Hybrid switchgear module to be supplied shall be manufactured in India. Please confirm.	Cannot be considered at this point as the same is not yet incorporated in the "GCC- Supply & Erection " of AEGCL.



(\*\*\*\*)  
SLD as mentioned in SI-3  
Column (vii)



**Manufacturer's Authorization**

**[The Bidder, in pursuant to ECQ Clause 2.1.2 (if applicable) shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. Please refer to notes at bottom]**

**(Manufacturer's Letterhead)**

Date: *[insert date (as day, month and year) of Bid Submission]*

Bid No.: *[insert number of bidding process]*

**To: *[Insert: full name of Purchaser]***

WE *[insert: name of Manufacturer]* who are established and reputable manufacturers of *[insert: name and/or description of the Goods]* having production facilities at *[insert: address of factory]* do hereby authorize *[insert: name & address of Bidder]* (hereinafter, the "Bidder") to submit a bid the purpose of which is to provide the following goods, manufactured by us, and to subsequently negotiate and sign the Contract:

- 1. -----
- 2. -----
- 

We hereby extend our full guarantee and warranty in accordance with **Clause 5.12.0** of the Special Conditions of Contract, for the above specified Goods supporting the Supply of specified Goods and fulfilling the Related Services by the Bidder against this Bidding Documents, and duly authorize said Bidder to act on our behalf in fulfilling these guarantee and warranty obligations. We also hereby declare that, we will furnish the Performance Guarantee in accordance with **SCC Clause 5.9.1**. Further, we also hereby declare that we and ..... *[insert: name of the Bidder]* have entered into a formal relationship in which, during the duration of the Contract (including related services of supervision of erection, testing & commissioning of the equipments and warranty / defects liability) we, the Manufacturer or Producer, will make our technical and engineering staff fully available to the technical and engineering staff of the successful Bidder to assist that Bidder, on a reasonable and best effort basis, in the performance of all its obligations to the Purchaser under the Contract.

For and on behalf of the Manufacturer

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

In the capacity of *[insert: title of position or other appropriate designation]*(and this should be signed by a person having the power of attorney to legally bind the manufacturer).

Date:.....

Place:..... (Signature).....

(Printed Name).....

(Designation).....

(Common Seal).....

**Notes:**

- 1. The letter of Undertaking should be on the letterhead of the Manufacturer and should be signed by a person competent and having **Power of Attorney to sign on behalf of the Manufacturer**(to be attached with this MA) to legally bind the Manufacturer. It shall be included by the bidder in its bid.
- 2. **Above undertaking shall be registered or notarized so as to be legally enforceable.**