MINUTES OF PREBID MEETING FOR TURNKEY CONSTRUCTION OF 2X50 MVA, 132/33 kV GIS AT EXISTING 220/132 kV AMINGAON GIS ON 16.08.2022

Minutes of Pre-Bid Meeting held on	O/o the MD, AEGCL, 1st Floor, Bijulee Bhawan, Paltan Bazar, Guwahati-01 dated 16.08.2022
Name of the Project	North-East Special Infrastructure Development Scheme (NESIDS)
Funding Agency	Ministry of Development of North Eastern Region (MDoNER)
Name of the Work	Turnkey Construction of 2X50 MVA, 132/33 kV GIS at existing 220/132 kV Amingaon GIS
NIT No.	AEGCL/MD/Tech-868/Amingaon GIS/2020/NIT/22 Dated 29.07.2022

NAMES OF THOSE PRESENT:

I. FROM EMPLOYER:

1. CGM (PP&D), AEGCL
2. GM (Non-EAP), AEGCL
3. GM (P&E), AEGCL
4. DGM (EAP-II), AEGCL
5. DGM (F&A), AEGCL
6. DGM (P&E-II), AEGCL
7. AGM (Tariff), AEGCL
8. AGM (BD), AEGCL
9. AM, AEGCL

II. FROM PROSPECTIVE BIDDERS:

A. REPREESNTATIVE OF FOLLOWING BIDDERS WERE PRESENT IN THE PRE-TENDER MEETING:

1. M/s Siemens Ltd.
2. M/s Aradhana Agency
3. M/s Kiran Electronics.
4. M/s T&T Projects Ltd.
5. M/s D. Kumar & Company
6. M/s Schneider Electric
7. M/s Power Network Engineers (P) Ltd.
8. M/s Jayanta Khound

B. FOLLOWING BIDDERS WERE NOT PRESENT IN THE PREBID MEETING, HOWEVER SUBMITTED THE QUERIES VIA E-MAIL.

1. M/s CG Power and Industrial Solutions Ltd.
2. M/s Hitachi Energy (ABB) Ltd.
3. M/s Neccon Power & Infra Ltd.
4. M/s Siddhartha Engineering Ltd.

OPENING REMARKS IN THE MEETING:

Sri Loknath Choudhury, CGM (PP&D), AEGCL extended a worm welcome to all the prospective bidders and introduced his team. CGM (PP&D), AEGCL explained the project's scope and requested the prospective bidders to table their most prioritized queries, considering the bulk of queries already submitted and the limited time. CGM (PP&D), AEGCL assured the prospective bidders that comprehensive reply/clarifications shall be prepared and uploaded in the AEGCL site as well as e-tender portal in response to their raised queries on the bid document.

MEMBERS OF THE PRE-BID COMMITTEE:

1. MD, AEGCL
2. CGM (PP&D), AEGCL
3. CGM (O&M), LAR, AEGCL
4. GM (Non-EAP), AEGCL
5. GM (P&D), AEGCL
6. DGM (EAP-II), AEGCL
7. DGM (F&A), AEGCL
8. DGM (P&E), AEGCL

The queries submitted by the prospective bidders were discussed by the Pre-Bid Committee and the observations made are **as follows in Table-1.**

QUERIES:

TABLE-1:

a) Queries on the Bid document

Sl. No.	Clause No.	Tender Clause/Description	Query	Response
1	Volume-II SECTION-10	4.27. In addition to above suitable portable scissor lift shall be provided for access of distant portion of GIS installation.	Request to please exclude from OEM scope	As per Tender
2	Volume-II SECTION-10	4.31 v) Pole Discordance.	Pole discordance is not applicable for 3- phase gang operated circuit breaker. Request to Please confirm	Accepted
3	Volume-II SECTION-10	xxvi. PD Monitoring System	Request to please exclude from OEM scope	As per Tender
4	Volume-II SECTION-10	6.3. Duty Requirements: Circuit breaker shall be C2 - M2- E2 class as per IEC 62271-100.	As per IEC, E2 Class is not applicable for circuit breakers above 52kV. Kindly accept.	As per Tender
5	Volume-II SECTION-10	TESTING & MAINTENANCE EQUIPMENT	Request to please exclude from OEM scope	As per Tender
6	Volume-I SECTION-1 APPENDIX TO ITB -2: EVALUATION	II. Manufacturer of GIS should also be manufacturer of CRP & SAS.	Query-1 Request to please delete this clause, else bidders will be limited and competition will be low and end result bid value will increase. There are different makes of GIS, CRP & SAS are installed in Amingaon S/S Hence,	Accepted. Manufacturer of GIS may not be manufacturer of CRP & SAS.

	AND QUALIFICATION CRITERIA (ECQ)		request to please allow to quote for different makes of GIS, CRP & SAS Query-2 As per bid, GIS component, C&R Panel and SAS should be from same OEM. Requested to change the clause as "Bidder can propose GIS component, C&R Panel and SAS from separate OEM"	
7	Volume-I SECTION-1 APPENDIX TO ITB -2: EVALUATION AND QUALIFICATION CRITERIA (ECQ)	III. The Manufacturer shall have to furnish type test report of SF6 gas insulated sub-station equipment duly Designed, Manufactured, tested (as per IEC standard and CEA Guidelines) which, shall not be older than 10 (Ten) years, as on date of tender opening. The language of the type test report should be in English only. Type Test should have been conducted at any of the following internationally accredited testing laboratories, (a) KEMA (Holland) (b) CESI (Italy) (c)CERDA (France) (d) PEHLA (Germany) (e) KERI (S. Korea) (f) CPRI/ERDA (India) (g) Intertek (ASTA), UK (h) ESEF ASEFA, France (i) JSTC, Japan (j) SATS Norway (k) VEIKI, Hungary (m) FGH (Germany) (n) VOLTA (France). (o) STLNA, USA. The testing Laboratory shall be accepted only if international accreditation certificate is furnished.	We request you to accept the Type Test Conducted from NABL accredited labs.	As per Tender
8	Volume-I SECTION-1 APPENDIX TO ITB -2: EVALUATION AND	Having Experience as contractor (sole or partner in a JV), in contracts within the last 5 (five) years in India, for complete construction of: " Either, **i. Minimum 2(two) nos. of 132/33kV (or above voltage class) Gas Insulated Substation (with transformer capacity 25MVA and above) in all respect including Substation Automation System in India.**	Query-1 We request you to modify the same as Having Experience as contractor (sole or partner in a JV), in contracts within the last 7 (Seven) years in India, for complete construction of: " Either, **i. Minimum 2(two) nos. of 132/33kV (or above voltage class) Gas Insulated Substation (with**	The Specific Qualification Criteria Requirement of ECQ may be read as follows: "Having Experience as contractor (sole or partner in a JV), in contracts in

	QUALIFICATION CRITERIA (ECQ)	If the contractor (sole or partner in a JV) does not meet the above experience then the contractor (sole or partner in a JV) can submit experience from manufacturer of Gas Insulated Substation having the above-mentioned experience. In such cases the experience criteria of the contractor (sole or partner in a JV) will be deemed to be fulfilled. However, both contractor (sole or lead partner in a JV) and manufacturer of Gas Insulated Substation must submit the notarized declaration for completion and running of the project upto defect liability period as per bid terms & condition. Further, the contractor (sole or partner in a JV) should alone fulfil the financial criteria. Or, **ii. Minimum 2(two) no. of extension of 132 kV or above voltage class GIS bus along with construction of new GIS bays for transformer at existing GIS including design, supply, erection testing and commissioning of transformer (with transformer capacity 25MVA and above) & 33kV feeder in India**	**transformer capacity 25MVA and above) in all respect including Substation Automation System in India.** If the contractor (sole or partner in a JV) does not meet the above experience, then the contractor (sole or partner in a JV) can submit experience from manufacturer of Gas Insulated Substation having the abovementioned experience. In such cases the experience criteria of the contractor (sole or partner in a JV) will be deemed to be fulfilled. However, contractor (sole or partner in a JV) will solely responsible for completion and running of the project. Manufacturer of Gas Insulated Substation should submit the notarized declaration that they will supply the GIS as per the time schedule and shall undertake supervision of erection testing and commissioning of GIS in case of award of contract. We request you to restrict the scope of GIS manufacturer only to GIS. Query-2 We request you to kindly amend the same as "Must have successfully executed and commissioned at least 1 (one) no. 220/132 KV GIS with transformer capacity 25 MVA and above in all respect within 7 (Seven) years	India, for complete construction of: " Either, **i. Minimum 2(two) nos. of 132/33kV (or above voltage class) Gas Insulated Substation (with transformer capacity 25MVA and above) in all respect including Substation Automation System in India.** If the contractor (sole or partner in a JV) does not meet the above experience then the contractor (sole or partner in a JV) can submit experience from manufacturer of Gas Insulated Substation having the above-mentioned experience. In such cases the experience criteria of the contractor (sole or partner in a JV) will be deemed to be fulfilled. However, both contractor (sole or lead partner in a JV) and manufacturer of Gas Insulated Substation must submit the notarized declaration for completion

				and running of the project upto defect liability period as per bid terms & condition. Further, the contractor (sole or partner in a JV) should alone fulfil the financial criteria. **Or,** **ii. Minimum 3(three) nos. of 33/11kV Gas Insulated Substation in all respect including Substation Automation System in India."** In this case, the respective OEMs of GIS, Transformer, CRP and Indoor VCB will be equally responsible for successful commissioning of the respective equipment and OEMs should submit a notarized declaration in this regard.
9	Volume-II Section 10	Sl. No. 15.2.1: Section 10 (132 GIS SUB-STATION SYSTEM) (constructional features of LCC) Local Control cubicle shall be free standing, floor mounting type (Standalone). Bay mounted LCCs are not accepted.	Query-1 One of the most important features of GIS is compact design. So, in this regard, we would request you to amend the clause for more compact design of GIS: **"Local Control Cubicle shall be Bay Mounted. (Should be type tested design of GIS manufacturer)"**	Accepted. Local Control Cubicle shall either be free standing, floor mounting type (Standalone) or Bay

			Query-2 For and 132 kV GIS system, we understand that integrated LCC can suffice the need and has advantages like compact design, ease of operation and maintenance, less building dimension. Request customer to kindly accept the same. Query-3 As per our understanding specification accepts both type of LCC. Whereas BOQ requirement is standalone. We would like to recommend with integrated type for saving of space at site.	Mounted (Integrated) type.
10	Volume-II Section 10	CL. 15: Section 10 (132 GIS SUB-STATION SYSTEM) General Technical Parameters of GIS SF6 gas leakage rate in years <= 0.5%	SF6 gas being greenhouse gas & as per climate impact, SF6 leakage should be minimum. So, we would request you to amend the clause to: **"SF6 gas leakage rate per year <= 0.1%"**	As per Tender
11	Volume-II Section 10	Section 10 (132 GIS SUB-STATION SYSTEM) System Parameters (132kV GIS) Maximum gas loss per year < 0.5%	SF6 gas being greenhouse gas & as per climate impact, SF6 leakage should be minimum. So, we would request you to amend the clause to **Maximum gas loss per year <= 0.1%**	As per Tender
12	Volume-II Section 10	CL 4.12: Section 10 (132 GIS SUB-STATION SYSTEM) The maximum SF6 gas leakage shall not exceed 0.5% (half percent) per year for the whole equipment and for any individual gas compartment separately. The SF6 gas leakage should not exceed 0.5% per year and the leakage rate shall be guaranteed for at least 10 years. In case the	SF6 gas being greenhouse gas & as per climate impact, SF6 leakage should be minimum. So, we would request you to amend the clause to: **"The maximum SF6 gas leakage shall not exceed 0.1% per year for the whole equipment and for any individual gas compartment separately. The SF6 gas leakage should not exceed 0.1% per year and**	As per Tender

		leakage under the specified conditions is found to be greater than 0.5% after one year of commissioning, the manufacturer will have to supply free of cost, the total gas requirement for subsequent ten (10) years, based on actual leakage observed during the first year of operation after commissioning.	**the leakage rate shall be guaranteed for at least 10 years. In case the leakage under the specified conditions is found to be greater than 0.1% after one year of commissioning, the manufacturer will have to supply free of cost, the total gas requirement for subsequent ten (10) years, based on actual leakage observed during the first year of operation after commissioning."**	
13	Volume-II Section 10	Cl 4: Section 10 (132 GIS SUB-STATION SYSTEM) General Design & Safety Requirement Not Specified	For condition monitoring & preventive maintenance of GIS we would recommend incorporation of the following clause for GIS condition monitoring by digital solutions: **"132 kV Gas Insulated Switchgear: Digital features for predictive maintenance.** **As a predictive maintenance solution for an O&M team of user, there needs to be an automatic and real time status update feature integrated within the switchgear. This feature might be based on stand-alone system or integrated within substation control system/ SCADA. This feature should offer following capabilities and monitoring of parameters digitally on the laptop / tablet / mobile phone of O&M users (authorized by the purchaser) on real time basis, duly complying with latest cyber security norms.** **- SF6 gas density -> Actual value, and email/ SMS notification on the threshold value set by user.** **- Ambient temperature actual value** **- Cubicle temperature of Circuit Breaker** **- CB operating position (ON / OFF)**	As per Tender

			- Readiness to switch ON the CB (based on Spring charged position and sufficient Gas pressure) - No. of CB operations performed. - Fleet view (GPS based mapping of GIS location) - Weather information (web based) Towards the predictive maintenance approach, the switchgear shall also additionally provide below trending parameters (based on the historical operational statistics), enabling user to plan the maintenance activities proactively in most economical way and avoid any unwanted outage. - SF6 gas density -> Predicted time to next alarm. - Circuit Breaker mechanical life -> prediction of remaining life, before major overhauling. This data should be available on real time basis, and also downloadable with historical logging of above referred KPIs. **Above functionalities must be factory tested during the Routine testing/ Customer inspection, and ready to operate at site."**	
14	Volume-II Section 10	Cl. 10.3.1: Section 10 (132 GIS SUB-STATION SYSTEM) TESTS In accordance with the requirements in Section-GTR, Current Transformer and	We request you to include/add the following clause for better quality control of GIS manufacturing process: **"Routine test on GIS CT and PT performed shall be performed from NABL accredited lab."**	The type test Report (In English Language only) of the GIS shall be of one of the Internationally Accredited Laboratories only: (a) KEMA (Holland), (b) CESI (Italy), (c) CERDA (France), (d) PHELA,

		Voltage Transformer should have been type tested and shall be subjected to routine tests in accordance with relevant IEC.		(Germany), (e) KERI (S. Korea), (f) CPRI/ERDA (India), (g) Intertek (ASTA), UK, (h) ESEF ASEFA, France, (i) JSTC, Japan, (j) SATS Norway, (k) VEIKI, Hungary, (m) FGH (Germany), (n) VOLTA (France), (o) STLNA, USA. The Routine Test of the GIS equipment shall be performed from NABL accredited laboratory.
15	Volume-II, Section-6, Sub Clause-6.5.3	These panels shall be of the following approximate dimensions: i. Height: 2250mm + 15mm anti-vibration pad + 50 mm (base) ii. Depth: 800mm to 1000 mm iii. Width: 800 mm to 1000 mm iv. Operating Height: 1800 mm.	We propose Simplex Type Panel with Height: 2200mm + 15mm anti-vibration pad + 100 mm (base). However, the total height of 2315 will remain same as per spec. Pls confirm	Simplex Panel shall be provided for all voltage classes
16	Volume-II, Section-6, Sub Clause-6.4.2	Tests are conducted in KEMA/NABL accredited laboratory, for GOOSE messaging etc. as per relevant IEC 61850 Standards.	We understand that type tests done in Accredited Labs outside India shall also be acceptable	As per Tender
17	Volume-II, Section-6, Clause-6.14	The ABT compliant tri vector meters	We understand that CRPs are to be supplied with ABT complaint tri vector meters as specified in the Panel BOQ of specification, any scope related to supply/installation/commissioning/integration of AMR/DCU/CDCS/MDAS is not envisaged in the scope of CRP supply, pls confirm.	SAMAST Compliant ABT meters shall be supplied with the CRP as per BID/BoQ

18	Volume-II, Section-6, Clause-Not Specified	iii. The meter shall be capable of data transmission to Gateway in IEC61850 protocol. It shall be responsibility of the tenderer to ensure that meters shall be compatible to the Gateways via MODBUS Protocol. It should have GPS time stamp facility.	Pls clarify the communication protocol to be considered for the meters as both Modbus & IEC 61850 Protocols are mentioned in the specification.	Both MODBUS and IEC 61850 Protocols are acceptable provided that the Metering Servers shall have matching ports.
19	Volume-II, Section-6, Sub Clause-6.15.2	Relays shall have one no. front RJ45 or USB port (for RS 232 port Converter to USB shall be supplied for each substation along with spare) for Local Relay Parameterization and two nos. rear FO port/ Rear RS485 for connectivity to SAS over IEC61850 protocol	Our offered relays shall have 1 No. RS232/USB port on front for local relay parameterization & dual PRP compliant FO ports for connectivity to SAS. Rear RS485 port is not applicable for IEC61850 complaint relays.	Accepted
20	Volume-II, Section-6, Sub Clause-6.15.2	The relays should have self-diagnostic features identifying area of fault or failure of a particular component or card.	Our relay has Self diagnostic feature which will give alarm through separate life contact & LED in case of any internal Software or Hardware failure, pls confirm.	The relays should have self-diagnostic features identifying area of fault or failure of a particular component or card. The relay should be capable of generating error report which could indicate the particular area of failure.
21	Volume-II, Section-6, Sub Clause-6.15.2	Disturbance records – The relay shall have capacity to store disturbance records of at least 10 sec. duration and sampling rate per cycle shall be more than 15.	We understand that sampling rate cycle for the numerical relays is normally 15 samples per cycle is acceptable to user, pls confirm.	As per Tender
22	Volume-II, Section-6, Sub Clause-6.15.2	The direction of power Flow shall be displayed	We understand that this feature is applicable for relays having directional overcurrent protection functionalities, kindly confirm.	The direction of power Flow if displayed with numeric sign is acceptable and this feature is required for all relays.
23	Volume-II, Section-6,	Integrated Numerical Transformer Differential Protection as Main –I & Main-II	We understand that 2 No 2 Winding Transformer Protection Relay in Main I & Main II configuration is to	As per Tender

	Sub Clause-6.15.2		be proposed with inbuilt over flux, high impedance REF & backup non directional protection functions, pls confirm if the bidder's understanding is in line with the project requirement or not.	
24	Volume-II, Section-6, Clause-6.30	The BCU shall have redundant power supply card i.e., in case of failure of one source/Card fail, the redundant shall pick up instantly. Power supply card failure shall generate necessary alarm to local SCADA.	We propose redundant supply source with auto-changeover outside the Relay /IED/BCU. In case of a power failure in one source, Relays/BCU shall get supply from other source through an auto change-over scheme. Any supply failure shall also generate necessary alarm to local SCADA, pls confirm.	Accepted
25	Volume-II, Section-6, Clause-6.30	The BCU shall have back up directional & non-directional back-up protection features in addition to Auto Reclose, LBB, and Synchronization function	Since the system is envisaged with standalone Bay Control Unit & Bay Protection Units, we propose to offer BCUs without protection functionalities like Back up Directional & Non-Directional protections, U/O Voltage Protections.	As per Tender
26	Volume-II, Section-10, Clause-2	The equipment offered shall be protected against all types of voltage surges and any equipment necessary to satisfy this requirements hall deemed to be included.	As per SLD, we could not see requirement of any GIS surge arrestor and the same is not considered in scope of works.	Accepted
27	Volume-II, Section-10, Sub Clause-4.39	Grounding:	Earthing details for GIS shall be provided during detailed engineering stage. However, supply of earthing materials shall be excluded from GIS OEM scope of supply.	Scope of the EPC/OEM
28	Volume-II, Section-10, Sub Clause-5.43.1	The devices shall provide continuous & automatic (ONLINE) monitoring of gas density.	For offered GIS, the DM are such that the pressure status can be continuously monitored on the DM switches. In SCADA the pressure status (Not values) can be monitored online. We hope this suffice the need and no additional requirement is envisaged. Please confirm.	Confirmed

29	Volume-II, Section-10, Sub Clause-4.44	Documentation	Our scope shall be related to GIS +CRP documentation as per our battery limits.	As per Tender
30	Volume-II, Section-10, Sub Clause-4.44	(xxvi) PD Monitoring System	For a 132 kV GIS system, we do not envisage Online PD monitoring system. Portable PD monitoring system shall be provided. Request customer to kindly accept the same. Our scope shall be limited to supply of provision for PD. Supply of PD monitoring system shall be excluded from GIS OEM scope of supply.	Not Accepted
31	Volume-II, Section-10, Sub Clause-6.6.5	The breaker should be able to withstand all dielectric stresses imposed on it in open condition at lockout pressure continuously (i.e., 2 p.u. power frequency voltage across the breaker continuously)	For the offered GIS the breaker should be able to withstand all dielectric stresses imposed on it in open condition at lockout pressure i.e., 2 p.u. power frequency voltage across the breaker for a duration of 15 mins. Request customer to kindly accept the same.	As per Tender
32	Volume-II, Section-10, Sub Clause-6.6.7	Provisions shall be made for attaching an operational analyzer to record travel, speed and making measurement of operating timings etc. after installation at site. The contractor shall supply three set of transducers for each substation covered under the scope.	Supply of any such transducer shall be excluded from GIS OEM scope. Provision is available.	As per Tender
33	Volume-II, Section-10, Sub Clause-11.2	Insulation co-ordination and selection of surge arrestor: The contractor shall be fully responsible for complete insulation co-ordination of switchyard including GIS.	The same shall be excluded from GIS OEM scope of supply. Necessary technical inputs if any shall be provided during detailed engineering stage.	As per Tender
34	Volume-II, Section-10, Sub Clause-11.2	The locations of surge arrestors shown in single line diagram is indicative only.	As per SLD, we could not see requirement of any GIS surge arrestor and the same is not considered in scope of works.	As per Insulation Co-ordination Study

35	Volume-II, Section-10, Sub Clause-11.2	The contractor shall also consider in the studies the open circuit breaker condition, fast transients generated by slow operation of disconnecting switches. The study report and design calculations shall be submitted for Owner's approval.	The same shall be excluded from GIS OEM scope of supply. Necessary technical inputs if any shall be provided during detailed engineering stage.	As per Tender
36	Volume-II, Section-10, Sub Clause-11.3.2	Surge arrestor shall be disconnect-link type and be attached to the gas-insulated system in such a manner that they can be readily disconnected from the system while the system is being dielectrically tested.	Surge arresters are excluded from our scope, hence same is not applicable, please confirm.	As per Tender
37	Volume-II, Section-10, Sub Clause-16.17.19	16. GIS BUILDING 17. ELECTRIC OVER HEAD CRANE: 19. DESIGN REVIEW	The same shall be excluded from GIS OEM scope of supply. Necessary electrical inputs if any like cut out, crane capacity, GIS layout, section & loading details shall be provided during detailed engineering stage.	As per Tender
38	Volume-II, Section-10, Sub Clause-12.3	Each module will have its own Identification & rating plate. The rating plate marking for each individual equipment like Circuit breaker, Disconnect Switch Grounding switches, Current transformer, Voltage transformers, Surge arrester etc. shall be as per their relevant IEC.	Name plate shall be provided for bay, CT and VT. We do not envisage separate name plate for each module. Request customer to kindly accept the same.	As per Tender
39	Volume-II, Section-10, Clause-22	All transport packages containing critical units viz Circuit breakers and Voltage transformers shall be provided with sufficient number of impacts recorders (on returnable basis)	VTs being a critical equipment, shock indicator shall be provided on VT. For any other shipping unit, we do not envisage any other shock indicator. Request customer to kindly accept the same.	As per Tender
40	Volume-II, Section-10, Clause-26	MANDATORY SPARE	As per BOQ, no mandatory spares are mentioned. Request customer to kindly clarify the requirement or provide mandatory spares requirement if any.	There are no mandatory spares for the GIS Modules in the scope of this tender.

41	Volume-II, Section-10, Clause-26	TESTING&MAINTENACEEQUIPMENT Any special tools needed for installation, operation and inspection shall be included in the quotation.	Required tools for Installation & Commissioning shall be brought to site on returnable basis.	As per Tender
42	Volume-II, Section-10, Clause-26	These special tools shall be supplied along with the GIS and shall not be taken back by the Tenderer. For gas handling purpose following tools shall be quoted as a minimum:	Supply of the same shall be excluded from GIS OEM scope of supply.	As per Tender
43	Volume-II, Section-10, Clause-26	SF6 Gas leakage detector. Gas filling and evacuating plant:(Gas Processing unit) SF6 gas analyzer: Online Partial Discharge Monitoring System Video Borescope:	Supply of the same shall be excluded from GIS OEM scope of supply.	As per.Tender
44	Volume-II, Section-10, Clause-26	Training	Noted. However, charges of travel, accommodation, and local conveyance of EPC/customer shall be excluded from GIS OEM scope of supply.	Provided by successful bidder. No price implication will be borne by AEGCL.
45	Volume-II, Section-10,	Rated duration of short circuit s 4	The same shall be 40 kA for 3 sec, as per IEC standards	As per Tender
46	Volume-II, Section-10,	Rated current 3150 A	The same shall be 3150 A @ 40 deg C	As per Tender
47	Volume-II, Section-10,	Type test for Adapters	We do not envisage performing type test on Adapter module used to connect the existing GIS to present GIS. The performance of the adapter shall be verified using simulation results which we shall share for	As per Tender

			customer review. Request customer acceptance on the same.	
48	Volume-II, Section-10,	Availability of sieyuan supervisor + Tools to operated existing sieyuan GIS	We request customer to kindly make available sieyuan supervisor at site for entire duration of coupling of present GIS to existing GIS. Also, the tools, consumables, required to open existing GIS shall be scope of customer/sieyuan. Any charges occurring on account of sieyuan supervisor and tools shall be borne by purchaser. Request customer to kindly confirm the same.	Arrangement of authorized technical personal of Sieyuan (including arrangement of tools & consumables required to open existing GIS) at existing 132kV Amingaon GIS is in the scope of successful bidder. No price implication will be borne by AEGCL.
49	Volume-II, Section-10,	Delivery period	For the offered GIS the delivery timeline shall be as, 8-10 months Ex-Works delivery from the date of receipt of drawing approval/ manufacturing clearance whichever is later.	As per Tender
50	Volume-II, Section-10,	Section view	Please support with the AutoCAD copy of section view and plan view	Existing GIS Auto CAD file will be provided after issue of LoA to the successful bidder.
51	Volume-II, Section-10,	Site photos	Request customer to kindly support with site photos if available.	Site visit was conducted on 08.08.2022.
52	Volume-II, Section-10,	Shutdown	A shutdown plan of the existing substation is mandatory and is required for a maximum of 3 times. A detailed schedule can be furnished during the time of project execution.	Detail shutdown schedule and execution plan may be submitted by the successful bidder after issue of LoA
53	Volume-II,	Responsibility	Siemens will not be held responsible for any failure of the existing switchgear while the mentioned activities	Not accepted.

	Section-10,		are in progress, nor after the installation of the adaptors including the new bays is over, whatsoever.	Any damage partial or full of the existing GIS equipment during coupling process will be the responsibility of the EPC contractor/OEM. Any damage partial or full of the existing GIS adapter and both existing buses after coupling process will be the responsibility of the EPC contractor/OEM till the defect liability period.
54	Volume-II, Section-10,	Layout	Please support with the AutoCAD copy of section view and plan view of existing GIS	Existing GIS Auto CAD file will be provided after issue of LoA to the successful bidder.
56	Volume-II, Section-10,	CT parameters	We understand that CT parameters of Trafo bays as per existing GIS SLD shall be considered for present scope. Please confirm.	As per BoQ
57	Volume-I Section-5 (SCC) 5.8.1 PERFORMANCE SECURITY DEPOSIT (PSD)	The Supplier shall have to deposit to the extent of 10% (ten percent) of the total value of the order as performance security Bank Guarantee (BG)/ Demand Draft (DD)/ Fixed Deposit (FD) from a nationalized or scheduled Bank of RBI for a period of sixty (60) months from the date of supply or fifty-four (54) from the date of commissioning of the project, whichever is later. This is to be submitted within ten (10) days of receipt of notification of award and before signing of the contract, duly pledged in favor of the Purchaser.	Query-1 As per standard utility/DISCOM practice, Defect liability period (DLP) is one year from the date of commissioning of the project. All the equipment accordingly carry warranty and guarantee as per OEM norms. We Request you to amend the DLP to 1 year from the date of commissioning of the project. Query-2 We request you to kindly amend the same as "3%" PBG	As per Tender

58	Volume-I Section-2 (Bidding forms) 2.5.1 (Item-1, Point-V) DEFECT LIABILITY PERIOD	The Tenderer shall furnish performance guarantee for an amount of 10% of the ex-works cost of GIS equipment(s) for a period of five (5) years after completion of the defect liability period. This performance guarantee shall be in addition to Contract Performance Guarantee to be submitted by the tenderer to cover the Contractor's extended defect liability. If the tenderer is not the manufacturer, the agreement between the tenderer and the GIS manufacturer containing the terms and conditions pertaining to this performance guarantee for 10% of the ex-works cost of GIS equipment(s) for a period of five (5) years after completion of the defect liability period shall be submitted to AEGCL, 3 months prior to the expiry of the defect liability period.	Already successful bidder shall be submitting 10% Performance Security Deposit till Defect liability period. Therefore, additional BG is not required. We request you to remove the clause of additional BG.	The Tenderer shall furnish performance guarantee for an amount of 10% of the ex-works cost of GIS equipment(s) for a period of five (5) years after completion of the defect liability period to AEGCL, 3 months prior to the expiry of the defect liability period.
59	Volume-I Section-5 (SCC) 5.7.5 ADVANCE PAYMENT	No advance payment is applicable for this contract.	This is a High valued project where huge amount will be kept as PSD as well as we need to give advance (30%-40%) to all the Manufacturer as advance against procurement which results huge financial burden on TKC. We request you to amend the clause and provide 15% mobilization advance which shall be paid on ex-works supply amount against BG.	As per Tender
60	Volume-I Section-5 (SCC) 5.7.2 (A) 1 PAYMENT TERM (SUPPLY)	Within 60 (sixty) days from the date of submission of the invoice against supply (Subjected to availability of NESIDS fund), not more than 60% (sixty percent) payment of the total supply invoice value would be made on receipt and acceptance of materials in full and good condition. However, GST amount on invoice would be paid 100% or as per Govt. Rules.	As the payment is depending on availability of funds from NESIDS and also only 60% of the supply is to be paid, the same will attract negative cash flow in the project execution. Time bound availability of funds to be ensured. We request you to amend the payment terms as: - a) 80% of supply payment shall be released after receipt of materials at site.	As per Tender

			b) 10% of supply payment will be released after erection of equipment at site. c) Balance 10 % of supply amount shall be released after commissioning of the equipment.	
61	Volume-I Section-5 (SCC) 5.7.2 (A) 3- (a & b) PAYMENT TERM (SUPPLY)	Remaining 40% (forty percent) retention amount would be released subject to fulfillment of the following conditions: a) 50% of balance supply amount would be paid on completion of 50% of the total erection works of the project. b) Remaining 50% of the supply amount would be paid on completion of 100% erection, testing and commissioning activities of the project, which should be certified by the project manager.	Holding of 40% supply payments linked with ETC of equipment will also attract negative cash flow in the execution of the Contract. We request you to amend the payment terms as: - a) 80% of supply payment shall be released after receipt of materials at site. b) 10% of supply payment will be released after erection of equipment at site. c) Balance 10 % of supply amount shall be released after commissioning of the equipment.	As per Tender
62	Volume-I Section-5 (SCC) 5.7.2 (B) -1 PAYMENT TERM (ERECTION)	Within 60 (sixty) days from the date of submission of invoice against foundation, erection, testing, commissioning and civil works (Subjected to availability of NESIDS fund), not more than 80% (eighty percent) of the total verified invoice would be made. However, GST amount on invoice would be paid 100% or as per Govt. Rules.	Time bound availability of Funds to be ensured and payment terms shall be changed for smooth execution of the project. We request you to amend the erection payment as: - a) 90% of total verified erection invoice shall be paid. b) Balance 10% payment will be released on completion of 100% erection, testing and commissioning activities of the project.	As per Tender
63	Volume-I Section-5 (SCC) 5.7.2 (B) -5 PAYMENT TERM (ERECTION)	Remaining 20% of the erection value would be paid on completion of 100% erection, testing and commissioning activities of the project, which should be certified by the project manager.	We request you to amend the erection payment as: - a) 90% of total verified erection invoice shall be paid. b) Balance 10% payment will be released on completion of 100% erection, testing and commissioning activities of the project.	As per Tender
64	Volume-I SECTION-1	Not Specified	Query-1 Request for finance amendment i.e., 30% turnover required for lead partner for last three financial year which is 40% as per the tender	30% turnover is considered for lead partner for last three

	APPENDIX TO ITB -2: EVALUATION AND QUALIFICATION CRITERIA (ECQ)		Query-2 Request for finance amendment i.e., 30% turnover required for lead partner for last three financial year i.e., Rs.1000 Lakh average turnover for three years. Query-3 Main bidder can also allow to submit financial turnover from O.E.M. as asked for 132kV GIS Or 30% of the project cost for bidder.	financial year instead of 40% as per the tender
65	Volume-II Section-10 Sub Clause-12.2.0	Scope	We would like to inform that our scope is limited to the design, engineering, manufacture, fabrication, testing at manufacturers works, delivery Ex-works at Factory, Supervision of erection, testing and commissioning at site for 145kV GIS.	As per Tender
66	Volume-II Section-10 Clause-3	Not specified Cast Aluminum: Internal surfaces (cast-aluminum): Seevenax protective paint RAL 7038 (grey) Shade: RAL 9010 (white)	We request that the internal Surface shall be unpainted and outside shade shall be RAL 7035 as per manufacturer design.	Painting Procedure shall be as per Type Tested Design
67	Volume-II Section-10 Clause-4.27	In addition to above suitable portable scissor lift shall be provided for access of distant portion of GIS installation.	We would like to inform you that portable scissor lift is not under GIS Supplier scope.	Scope of EPC
68	Volume-II Section-10	The GIS equipment shall be provided with one enclosure per phase for all gas compartments. The electrical ratings are provided at the end.	We would like to inform that the offered GIS is of 3Phase encapsulated.	Accepted
69	Volume-II Section-10	Complete station assembly in the factory for testing purpose and dis assembly for shipping are not preferred.	We understand that GIS shall be tested and shipped as per the shipping units considering transport restrictions. Further, VT / SA shall be installed at site after dielectric test at site.	Accepted
70	Volume-II Section-10	Tenderer shall confirm the nominal rating of GIS components at 50°C and as per clause no. 11.4,	As per both the clauses, there is discrepancy. Hence nominal rating of GIS components at 50 deg C can be	Design Temperature shall be 50 deg

		Circuit breaker, Sl no.4, Nominal operating current of 132kV circuit breaker is 2000A at 40°C.	confirmed for current rating up to 2000A. However, the design temperature of the GIS is 40 deg C.	centigrade and Nominal Current shall be 3150A as per BID.
71	Volume-II Section-10	Bus Potential Transformer (PT) shall be provided with additional disconnector and grounding switch.	Please note that since the VT provided is of GIS-VT (i.e., Electro Magnetic type) and there is no need of additional grounding switch as the VT primary winding will be itself earthed. Also, please note that in case of CVT, there is need to earth the capacitance charges, so additional grounding switch is required. Further, to ground the bus bars, a dedicated earthing switches shall be provided for both the buses.	Type Tested Design shall be accepted. (132kV VT is not in the scope of the tender)
72	Volume-II Section-10 Clause-4.21	The GIS shall be designed, so as to take care of the VFT over voltages generated as a result of pre-strikes and re-strikes during isolator operation. Manufacturer shall submit the study report of VFTO generated for GIS installation.	We do not envisage any VFTO studies for the subject voltage level.	As per Tender
73	Volume-II Section-10	Support Insulators and Section Barriers: Its safety factor shall be no less than 4.5.	Safety factor for Support Insulators and Section Barriers insulators shall be as per IEC standards only.	As per Tender
74	Volume-II Section-10 Clause-4.35	For sliding type compensators, markers/ pointers shall be provided to observe expansion or contraction during climatic conditions.	The requirement of compensators shall be finalized during the detail engg. However, no any markers/pointers shall be available for any compensators.	As per Tender
75	Volume-II Section-10 Sub Clause-5.7.3	Any failure shall be immediately signaled by the systems inherent self-supervision with clear description of the nature and the location of this failure.	As per OEM standard design, we do not envisage any inherent self-supervision feature.	As per Tender

76	Volume-II Section-10 Sub Clause-5.7.2	As minimum flexibility in the layout arrangement, it shall be possible to remove the circuit breaker with both bus bar remaining in service. For Double Main bus switching scheme during a fault in CB compartment, no bus bar permitted out of service during maintenance and repair/replacement.	We would like to inform that; active part of the circuit breaker is removed without removing another element. In standard practice, there is no need of removing entire CB assembly (i.e., in the event of repair on interrupter, busbar will be remained in service. But it is not possible in the case of replacement / removal of entire Circuit Breaker assembly).	As per Tender
77	Volume-II Section-10	Earthing of the Switchgear	Please note that the earthing connection from the GIS earthing terminal (at GIS structure) to main earth mat will be in the scope of MC. However, all the earthing between GIS equipment and till GIS earthing terminal shall be in GIS manufacturer scope.	To be decided between Vendor and EPC
78	Volume-II Section-10 Sub Clause-5.39.6	The manufacturer shall provide suitable barrier of non-linear resistor/counter discontinued SF6/Air termination SF6/HV cable bushing etc. to mitigate transient enclosure voltage.	We would like to inform that non-linear resistor shall be in the scope of Main contractor.	To be decided between Vendor and EPC
79	Volume-II Section-10 Clause-26	Special Tools: Any special tools needed for installation, operation and inspection shall be included in the quotation. These special tools shall be supplied along with the GIS and shall not be taken back by the Tenderer. For gas handling purpose following tools shall be quoted as a minimum: SF6 Gas Processing, Drying, Storage & Filling Unit Online Partial Discharge Monitoring Unit SF6 gas quality testing unit SF6 Gas Leak Detector Precision Pressure Gauge SF6 Gas Evacuation Plant (One mobile cart and one static cart) Video Borescope	Being Brought Out items request to please keep in the scope of MC. Hence, Excluded.	To be decided between Vendor and EPC

80	Volume-II Section-10	Further, the manufacturer shall furnish the following information during detailed engineering: b) Calculation for adequacy of UHF sensors to be provided in GIS Installation as per clause no 4.41. c) The calculations and documents in support of the average intensity of electromagnetic field on the surface of the enclosure. d) Calculations to show that there is no Ferro resonance due to capacitance of GIS for the voltage transformers. e) Calculations in support of touch & step voltages in all enclosures and earthing of complete GIS installation. f) Measures to mitigate transient enclosure voltage by high frequency currents. g) The acceptance criteria and limits of impact (of impact recorder) in all three directions which can be withstood by the equipment during transportation and handling.	b. As the design calculations are done via software tool, APPSIL field experience, therefore request to exempt us from submission of design calculation report. c., d., e., f., g. We confirm to submit our standard General Technical Information for your review	As per Tender
81	Volume-II Section-10	The circuit breakers shall be designed for high-speed single and three phase reclosing with an operating sequence and timing as specified.	We understand for 145kV GIS, CB shall be of three phase reclosing type only.	Accepted
82	Volume-II Section-10	Breaker disposition must be horizontal to provide higher mechanical stability and ease in maintenance.	We understand that for 145kV GIS vertical CB arrangement is allowed as it reduces the footprint in GIS building. Also, vertical interrupter is our standard manufacturing design which is globally accepted.	Type Tested Design may be accepted. Feasibility at site shall be checked by the OEM.
83	Volume-II Section-10	Withstanding all dielectric stresses imposed on it in open condition at lock out pressure continuously (i.e., shall be designed for 2 p.u. across the breaker	We would like to inform that our offered product is designed and type tested as per IEC standards only.	As per Tender

		continuously, for validation of which a power frequency withstand test conducted for a duration of at least 15 minutes is acceptable).	We confirm that our offered product is type tested at Power Frequency Withstand voltage as per IEC.	
84	Volume-II Section-10	220/132kV transformer - 50 to 200 MVA 132/33kV transformer - 10 to 50 MVA	The offered GIS circuit breaker shall be capable for switching of transformers as per specification requirement in line with IEC. However, type test for the same is not required as per IEC.	Decided during Detail Engineering
85	Volume-II Section-10	Discrepancy circuit shall be provided which shall detect pole position discrepancy.	We would like to inform that the offered design is of three phases encapsulated and mechanically ganged operated for three pole circuit breaker, pole discrepancy is not applicable.	Accepted
86	Volume-II Section-10	ii. The type test report of Electromagnetic Compatibility Test (EMC) of CSD shall be submitted for approval iii. Circuit breakers meant for controlled switching shall conform to requirements of IEC/TR-62271–302. The contractor shall submit test reports to demonstrate that the offered CB conforms to the requirements of performance verification tests and parameter definition tests as per IEC/TR 62271-302. The contractor shall also furnish the report for the re-ignition free arcing window for switching 3-phase shunt reactor as demonstrated in the shunt reactor switching test.	We understand that CSD is not required for the subject project. Hence, TTR for the same shall not applicable. We understand that application of reactor switching is not envisaged in this project. Hence, understand the subject clause is not applicable. However, in case required, the test reports with breaking current in line with IEC 62271-110, clause 4.4.6 table 8 shall be submitted by us in the event of order.	Accepted
87	Volume-II Section-10	The common point of the two bus bars along with earth switch shall be designed and housed in a separate compartment so as to avoid complete shutdown of the system in case of maintenance required in any disconnector.	We would like to inform you that the offered GIS is of modular design and the Bus side earth switch offered is not placed in separate compartment. However, we confirm meeting the required service continuity requirements.	Accepted

88	Volume-II Section-10	However, CT ratio shall be finalized during detailed engineering.	Unlike AIS systems, it is not necessary in GIS to place CTs on either side of CB. Thus, we request customer to kindly accept CTs located after circuit breaker. Further, Feasibility for any change in CT parameter shall be checked during detail engineering & the same will have price implication.	CT Bifurcation is required. No price implication will be borne by AEGCL.
89	Volume-II Section-10	Each voltage transformer shall be an electromagnetic, dry type SF6 –enclosed single-phase unit with the specified ratings.	Offered GIS VTs are three phases encapsulated as required.	VT is not in the scope of this tender
90	Volume-II Section-10	Voltage transformers secondary shall be protected by Miniature Circuit breakers (MCBs) with monitoring contacts for all the windings.	We would like to provide MCB on LCC side for protection of secondary of VT. To meet the requirement.	VT is not in the scope of this tender
91	Volume-II Section-10	Insulation co-ordination and selection of surge arrestor: The contractor shall be fully responsible for complete insulation co-ordination of switchyard including GIS.	We would like to inform you that, Insulation Coordination study (EMTP study) for SA consideration is not included in GIS scope of supply.	As per Tender
92	Volume-II Section-10	The contractor shall also consider in the studies the open circuit breaker condition, fast transients generated by slow operation of disconnecting switches. The study report and design calculations shall be submitted for Owner's approval.	We do not envisage these testing on 132kV GIS.	As per Tender
93	Volume-II Section-10	ELECTRIC OVERHEAD CRANE / 5 Ton EOT Crane for 145kV GIS Building	We would like to inform you that the EOT crane is not in GIS supply scope.	EOT Crane is not in the scope of this Tender
94	Volume-II	Rated operating sequence: O-0.3s-CO-3 min-CO Time for recharging CO cycle: CO-15sec-CO	As per referred clause, recharging CO cycle is mentioned as CO-15sec-CO. and rated operating sequence is	As per Tender

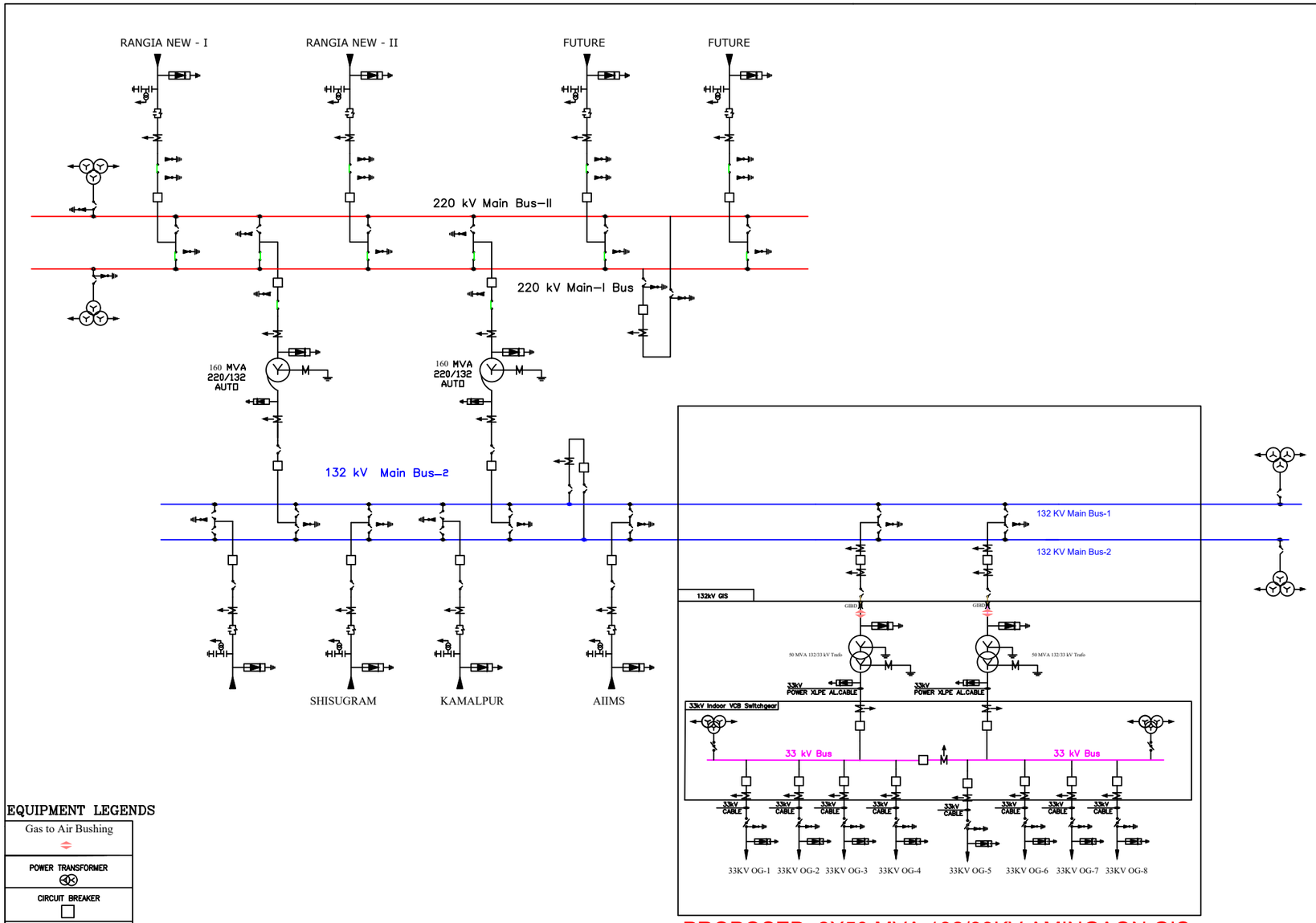
	Section-10		mentioned as O-0.3s-CO-3 min-CO. Hence, we understand the recharge of CO should be 15sec instead of 3min. Please confirm.	
95	Volume-II Section-10	Ambient Minimum Temperature = -20deg C	Our offered GIS for indoor application minimum ambient temperature is -5degC as per IEC standards.	Accepted
96	BOQ	Three (3) numbers 1-phase Potential Transformers, Gas monitoring devices, barriers, pressure switches, UHF PD Sensors, support structure etc. as required, local bay control cubicle for VT (Stand Alone)	We would like to inform you offered GIS VT is of 3phase encapsulated type. We would like to inform you as per the standard practice of GIS Manufacturer, the separate LCC for Bus VT is not required as all the connection of Bus VT are wired with Bus coupler LCC and the same is accepted to various state and central utilities.	VT is not in the scope of this tender
97	BOQ	Nominal operating current (at 40°C) :2000 A Three (3) number 1-phase, 3150A, SF6 insulated circuit breaker complete with operating mechanism and capable of three/one pole auto-reclosing	As per both the clauses, there is discrepancy. Hence nominal rating of GIS components 2000A at 50 deg C or 3150 A at 40 deg C can be confirmed. However, the design temperature of the GIS is 40 deg C.	Design temperature shall be 50 deg centigrade and Nominal Current 3150A.
98	BOQ	Supply, Testing and Maintenance Equipment Spares	Comments on the same shall be submitted in BOQ.	There are no mandatory spares for the GIS Modules in the scope of this tender.
99	Volume-II Section-4	Online DGA	Inbuilt display: We can provide access to the remote display on PC or laptop through a web browser or if required we can install the external display unit which can be installed at the control room also and connected to the DGA installed near the transformer. So, please amend this point as 'inbuilt display or external HMI'. SMS alert for at least three users when any fault gas violates the	As per Tender

			predefined limit: We can interface the DGA with existing SCADA. So, please amend the clause as 'SMS Alert or Integration in existing SCADA for alerts. Transfer oil temperature range required -20 degree to +120 degree: Sir, generally transfer OTI protection settings are kept at 95 degrees. If the temperature exceeds this limit, then it gets tripped. Hence 100 degrees	
100	Volume-II, Section-5, Clause-5.3.2-f & 5.7.4(iii)	TS calls for 1250 & 1600 Amps rated VCB for Outgoing Feeder.	Please clarify the exact requirement	1600 Amps
101	Volume-II, Section-5, Clause-5.3.2-f & 5.7.4(iii)	TS calls for 2500 Amps rated VCB for Incomer & Bus Coupler Feeder.	Considering 50 MVA Transformer the calculated Full Load Current will be 874 Amps for one Incomer. Even if we consider a loading of 10% for the CT calculation - the Full Load Current do not exceed 1000 Amps. Therefore, use of 1250/1600 Amps VCB is sufficient as per the load calculations for each Incomer & Bus Coupler. However, Busbar rating can be kept at 2500 Amps. We request AEGCL to review the same and provide the required ratings for the VCB's (Incomer & Bus Coupler).	Incomer VCB 1600A, Bus Coupler VCB 1600A, Bus Bar Rating 2500A
102	Volume-II, Section-5, Clause-5.3.2-g&j	TS calls for both 25 kA & 31.5 kA breaking current.	Please clarify the STC to be considered and also the duration	31.5 for 3 secs
103	Volume-II, Section-5, Clause-5.4.3	As per TS The switchgear assembly shall be dust, moisture, rodent and vermin proof, with the truck in any position SERVICE, ISOLATED, TEST or removed, and all doors and covers closed.	Complied for TEST & SERVICE Position. Not applicable for Isolated/disconnected Position where an isolating distance or segregation is established in the circuits (Main & Auxiliary) of the withdrawable part as per Clause no 3.129 of IEC 62271-200. The CB door need to be opened to establish isolation in the auxiliary circuit of the withdrawable part. Request AEGCL to amend the same	Accepted

104	Volume-II, Section-5, Clause-5.4.4	IP 52 report for Bus VT compartment and IP 42 test report for another compartment shall be provided.	We would like to inform that requirement for IP 52 is generally applicable for application which has exposure to dust and water (Protection against falling water drops when panel is tilted 15Deg on either side of the vertical). Also, the standard IS: 2147 referred in clause no 5.4.4 under this section is applicable for Low Voltage Switchgear only. It is not applicable for HV metal enclosed switchgear. Also, IP42 degree of protection is applicable for installations which has exposure to water ((Protection against falling water drops when panel is tilted 15Deg on either side of the vertical). But as per IEC 62271-200:2011 (applicable standard for indoor metal enclosed switchgear which is installed inside control rooms) the minimum degree of protection required for a metal enclosed switchgear is IP2X (i.e. prevent access to hazardous parts with fingers and protects the equipment inside the enclosure against ingress of solid foreign objects having a diameter of 12.5 mm and greater). Offered panels are tested for IP4X degree of protection (Any object probes greater than 1.0 mm Ø shall not penetrate). Therefore, we request you to accept the ingress protection as IP 4X for the enclosure.	Accepted
105	Volume-II, Section-5, Clause-5.9.0	PT burden shall be 100 VA as per Bid	Due to Design constraint, it is not possible to provide 100 VA PT with accuracy class 0.2. The size of the PT increases substantially due to which it cannot be accommodated in the panel. Therefore, in line with the earlier approved drawings aby AEGCL we request you to accept 50 VA burden for the PT's.	Accepted

106	Volume-II, Section-5, Clause-5.18.0	The panel should be type tested within 5 years of opening of tender from any of the following testing laboratory: CPRI/ ERDA/ KEEMA/ KERI/ PHELA/ CESI/NABL accredited laboratory.	We request you to accept the type test validity as per the latest CEA guidelines i.e., validity of the type test shall be within 10 years of opening of the tender.	Accepted
107	Volume-II, Section-5,	As per this section we need to refer volume III for the Drawings related to 33 kV AIS panels.	We request AEGCL to provide the SLD for 33 kV AIS portion as the same is not available along with the Bid.	Attached with pre bid MoM

Note: The CRP supplied under the project must be integrated with existing CRP & SAS of ABB make at 220/132kV Amingaon GIS. The Bidders are requested to visit the site along with officials of CGM(PP&D), AEGCL and check the compatibility with the existing CRP & SAS of ABB make. The AGM(BD), AEGCL, Ph No.9706420782 may be contacted for site visit.



PROPOSED 2X50 MVA 132/33KV AMINGAON GIS

EQUIPMENT LEGENDS

Gas to Air Bushing
POWER TRANSFORMER
CIRCUIT BREAKER
ISOLATOR WITHOUT EB
ISOLATOR WITH EB
CURRENT TRANSFORMER
POTENTIAL TRANSFORMER
LIGHTNING ARRESTER
WAVE TRAP
CVT

ASSAM ELECTRICITY GRID CORPORATION LTD.	DRAWING_TITLE SINGLE LINE DIAGRAM
220/132/33 KV AMINGAON GIS SUBSTATION	