



Himachal Pradesh State Electricity Board Limited
(A state Government Undertaking)

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PREE-BID-QUERIES CORRIGENDUM

The point wise Reply/Clarifications of the Pre-Bid – Queries raised by the M/s Schneider Electric through email dated 30.08.2022 as received from SE (DSP), HPSEBL, Shimla after vetting for the work “CONSTRUCTION OF FIVE (05) NOS. NEW 33/11 KV SUB-STATION IN DISTRICT KULLU (AT CHRODNALLAH & GUSHAINI), MANDI (AT THACHI), KANGRA (AT DAGWAR), CHAMBA (AT BANIKHET-RAIPUR) OF HIMACHAL PRADESH UNDER REVAMPED REFORMS-BASED AND RESULTS-LINKED, DISTRIBUTION SECTOR SCHEME (PACKAGE-15)” (BID No. CEON-RDSS-19/2022-23) invited through e-tendering mode vide this office letter No. 200761/RDSS/2022-23-10922-36 dated 18.08.2022 with opening date on 17.09.2022 (15:00 Hrs), are attached herewith as Annexure- ‘A’.

All other Terms and Conditions shall remain unchanged.

(Er. Ajay Gautam)
Chief Engineer (OP) North,
HPSEBL, Dharamshala.

No.200829/RDSS/2022-23-1272-64 Dated: 12-9-2022

- 1) The Sr. P.S. to Director (Op) for kind information of Director (Op) please.
- 2) The Chief Engineer (P&M), HPSEBL, Vidhut Bhawan, Shimla-4.
- 3) The Chief Engineer (MM), HPSEBL, Vidyut Bhawan, Shimla-4.
- 4) The Chief Engineer (SP) HPSEBL, Vidyut Bhawan, Shimla-4.
- 5) The Chief Engineer (OP) South Zone/ Central Zone, Shimla & Mandi.
- 6) The Chief Accounts Officers (F&A Wing), HPSEBL, Vidyut Bhawan, Shimla-4
- 7) The Superintending Engineer, (OP) Circle, HPSEBL., Dalhousie, Kangra, Kullu.
- 8) The Superintending Engineer (IT), HPSEBL, Shimla for hoisting on the website with complete tender documents email on seit@hpseb.in.
- 9) The Addl. Superintending Engineer/ Sr. Executive Engineers Electrical Division, HPSEBL, Dharamshala.
- 10) Notice Board

(Er. Ajay Gautam)
Chief Engineer (OP) North,
HPSEBL, Dharamshala.

IT Cell HPSEBL V.B. Shimla-4

Sr. EE/ASE (IT-4)

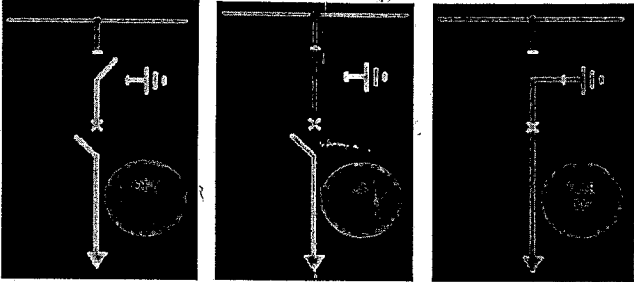
Sr. EE/ASE (IT-4)

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Document	Clause		Specification Requirements	Self Comments/ Clarifications	HPSEBL Clarifications
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 1.1	1	SF6 Gas Insulated, 33kV Double bus bar system	As per the tender BOQ the AIS substation is with single bus bar (S.B.B.) system, however for GIS substation the requirement is for double busbar system (D.B.B.) which is not clear. Even till date all the GIS s/s under HPSEBL is with Single bus bar system only and the tender BOQ already comprises of Bus-coupler. Previous commissioned and under execution GIS project within HPSEBL has been with Single Bus bar system only. Eg. (GMC, Shimla; Idgah, Shimla; Summerhill, Shimla; Chamain & Maliana, Shimla; Pontasahib, Solan. Attached are the recent Tender specification of HPSEBL, South (Chamiana & Maliana) and HPSEBL design (Pontasahib). Across all the Discom utilities pan India, single bus bar system is considered. Another factor on cost is that SBB is 25-30% lesser than DBB. Request the department to kindly review.	The GIS shall be SBB as per HPSEBL requirement.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 1.2	2	The Scope also include the Installation and Commissioning of SF6 Gas Insulated Switchboard Panels along with Inter Connection / Inter Panel Wiring from 132 OR 220 kV Panels as well as 36 kV Terminal Ends Jointing / Connection with 36 kV XLPE Cables along with terminal kits outdoor/indoor, in Incoming (Transformer) and Outgoing Feeder panels	We understand that the s/s is 33/11kv instead of 220/132/33kv. Please confirm.	The sub-station shall be 33/11kv only.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 4.1.6.a	3	Bus Bar Compartment containing the Bus Bars and the Bus Bar Side Isolator (in SF6 Gas Enclosure)	Busbar & Busbar side isolator (disconnecter) are mounted in separate gas compartment. With above design, future extension of the panel is possible without complete bus shutdown. Hence request department to kindly consider the design as per OEM/manufacture type tested design. Please review.	As per approved OEM type tested design.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 4.1.6.c	4	Current Transformer Compartment (in SF6 Gas Enclosure)	Current Transformers shall be Ring Core CTs mounted outside gas compartment. Benefit of Ring core CTs are as below: i) In case of change in load requirement, CTs can be changed at site. ii) Failure rate of CTs is less. CTs in contemporary medium voltage GIS designs are located outside the SF6 filled compartment. It ensures that the secondary is easily accessible, if required. Any repair and replacement activities of these components can also be carried out with ease with significant lesser downtime contrary to any design where these are located inside SF6 filled compartments, necessitating gas handling for any such activity. Already in Clause 5.3.1.a, the TS mention CT to be located inside/outside the Gas compartment. Request department to kindly review.	CT can be Air/SF6 Gas Insulated as per OEM type tested design.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 4.1.6.d	5	Voltage Transformer Compartment (in SF6 Gas Enclosure)	VTs are metal enclosed plug-in type and enclosed outside SF6 gas compartment. The plug-in type design of VT outside the SF6 compartment also provides the flexibility to disconnect it in case of cable testing. Already in Clause 5.3.2.b, it is already mentioned that Plug-in type to be mounted outside the Gas compartment. Request department to kindly review.	PT can be Air/SF6 Gas Insulated as per OEM type tested design.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 4.1.10	6	The Circuit Breakers shall be a VACUUM Circuit Breaker with Horizontal Pole Arrangement; they shall be placed in the Central front Part of the Cubicle.	Pole arrangement of the circuit breaker shall be as per OEM/ manufacturer type tested design. Request department to review.	As per approved OEM type tested design.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 4.1.12	7	Internal Parts of the Circuit Breakers shall be accessible for maintenance. The latter shall be removable keeping Bus Bars and Cables energised, after Opening of Bus Bar and Cable Side Isolators.	As per the clause, cable side isolator is required. We understand after opening busbar and cable side isolator (ear position), the feeder and connected cables shall be de-energised with circuit breaker of OFF condition. We confirm that the Circuit breaker is removable under such conditions in our type tested design as well. Please confirm.	As per approved OEM type tested design.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 4.2.i	8	Bus bar shall be tubular type in construction	We understand that the STC of 25kA/3s is to be considered. As per our design, the busbar shall be rectangular type. Request department to kindly consider both the design.	As per approved OEM type tested design. The STC of 25kA/3 s is to be considered.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 4.2.i	9	Bus bar to support STC of 40kA/3 sec.	We understand that the STC of 25kA/3s is to be considered. Please confirm.	The STC of 25kA/3 s is to be considered.

Document	Clause		Specification Requirements	SEL Comments/ Clarifications	HPSEBL Clarifications
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 4.4	10	In particular, the following Mechanical Interlocks atleast shall be provided to prevent: - a. Operation of Bus Bar and Cable Side Isolators if the Current Breaker is CLOSED b. Operation of the Circuit Breaker during Bus Bar and Cable Side Isolators operation c. Closing of the Earthing Switch when Bus Bar and Cable Side Isolators are CLOSED and in Incoming Unit without consent from the upstream Switchboard	These interlocks are only possible when cable side isolator is inside GIS panel. However as per new generation GIS switchgear of any OEM/manufacturer of GIS the isolation is provided on bus side only and during maintenance the CB is part of earthing circuit which provides better isolation instead of disconnection. Attached is the typical SLD for reference. 3 Position Switch Functions 	The Line side isolator can be inside or outside GIS module as per GIS vendor type tested design.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 5.1	11	The Vacuum Circuit Breaker shall form a completely independent and interchangeable module so that in case of failure the VCB can be replaced in least time	The VCB in GIS is a fixed type switchgear and hence cannot be interchanged. Please review.	VCB shall be fixed type. However individual feeder need to be modular type i.e. in case of any fault/failure in particular feeder the complete feeder is drawout and interchangeable type without any displacement of adjacent panel/feeder.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 5.6	12	PROTECTION AND SUPERVISION SYSTEM	The Technical specification of Numerical relays and BCU for 33kv GIS switchgear differs from that of 33kv CRP that are required in AIS s/s. Please confirm which one we need to consider.	Consider TS of 33kv CRP which is part of 33/11kv AIS sub-station as per RDSS scheme.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 6.01.ix	13	Switchgear Rating (General Characteristics) Rated STC - 40kA/3s Rated peak withstand current - 100kA (2.5 times of STC)	We understand that the STC of 25kA/3s is to be considered. Please confirm.	STC of 25kA/3 s is to be considered.
Technical Specification of 33 KV Gas Insulated Switchgear	Vol.-II, Section - 3A, 6.03.iii	14	Technical data of circuit breaker iii) Rated current a. Feeder - 600A b. Bus-coupler - 1200A c. Transformer incomer - 600A d. LT Transformers - 300A	As per the tender BOQ for Outdoor type breaker the , VCB rating shall be 1250A and STC of 25kA/3 s as per GIS bom. Please confirm.	The breaker rating are as follows: Incomer - 1250A Bus-coupler - 1250A Outgoing feeder - 1250A