

Nepal Electricity Authority  
Project Management Directorate  
**Khimti-Barhabise-Lapsipedi 400 kV Substation Project**

OCB No.: PMD/PTDSSP/KBL-75/76-01” Design, Supply, Installation and Commissioning of 400 kV Gas Insulated Substations (GIS) at New Khimti, Barhabise and Lapsipedi”

<b>Clarification No.3</b>			
<b>S.N.</b>	<b>Clause Reference</b>	<b>Queries by Bidder</b>	<b>NEA Response</b>
1	Common	As per tender Amendment 03 requirement , new extension 220kV Power Transformer bays need connect existing 220kV GIS. Please clarify which area we can put new extension 220kV Power Transformer bays .	GIS extension shall be inside the existing 220kV GIS Building
2	Common	As per tender Amendment 03 requirement ,the existing 220kV control and reply panel quantity need add it because of construction new extension 220kV Power Transformer bays.Please clarify existing 220kV control room whether have enough space.	Existing 220kV control room have enough space for new 220kV Transformer bays Control & Relay Panels.
3	Common	Please provide existing 220kV substation layout drawings and existing 220kV GIS detailed design drawings especially 220kV GIS main busbar detailed connect drawings. We shall refer those data to make 220kV GIS layout drawing.	Shall be provided during detail engineering.
4	Common	If existing 220kV GIS have online partial discharge monitoring system . Please clarify how to connect between new extension 220kV GIS system and existing 220kV GIS system.	Detail information shall be provided during detail engineering
5	Common	Please clarify the new extension 220kV bays whether need construction earthing system.	Earthing system for new 220 kV bays shall be under present scope of tender.
6	Common	Please clarify the bidder whether shall quotation and supply 220kV battery and battery charge,communication system and automatic system for new extension 220kV bays.	Bidder is to quote as per the provision of bid document
7	Common	Please provide water supply system docking (list only water supply pipeline quantity without corresponding other items) requirements and basic information.	Bidder is to quote as per the provision of bid document
8	Common	Please provide water supply system docking (list only water supply pipeline quantity without corresponding other items) requirements and basic information.	Bidder is to quote as per the provision of bid document
9	Common	Please provide fire protection system docking (the list only contains fire control pipeline quantity -lot without corresponding other items) requirements and basic data.	Bidder is to quote as per the provision of bid document
10	Common	Please provide lighting system docking requirements and basic information.	Bidder is to quote as per the provision of bid document
11	Common	Please provide lightning protection grounding system docking requirements and basic data.	Bidder is to quote as per the provision of bid document
12	Common	Please provide communication system docking requirements and basic data.	Bidder is to quote as per the provision of bid document
13	Common	Please provide basic information of the expansion of the existing station (electrical, civil and plane related civil information).	Bidder is to quote as per the provision of bid document
14	Common	Please provide 220kV GIB details drawing of the interface.	Shall be provided during detail engineering.
15	Common	Please provide existing station main equipment (GIS ,Power transformer, Control and Relay panel, SAS ,Communication System etc ) company information and existing equipment data.	Shall be provided during detail engineering.



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16	400kV New Khimti GIS Substation 400kV Barhabise GIS Substation 400kV Lapsiphedi GIS Substation Amendment, Chapter-1 - PSR, cl.no.1.4 & Revised BPS sl.no.B	As per referred clause, it is mentioned that supply of 220kV GIS module for two nos. of 400/220kV (LV) Auto transformer bays with busbar extension module are in our scope of work. In this regard, Kindly provide the following details: i) Existing make & model of 220kV GIS module ii) Whether sufficient space is available for accomodating 2 Nos of 220kV ICT modules along with busbar extension module in 220kV GIS building. iii) Whether existing 220kV GIS building to be get extended to accomodate proposed 220kV GIS modules in present scope of work? iv) We presume that illumination,VMS,earthing,cable trench and cable tray for proposed 2 Nos of 220kV bays are already availble in existing 220kV GIS building. Please confirm. v) Please furnish existing Layout plan,Control Building Layout,Cable Trench Layout of 200/132kV GIS vi) End Piece module with the test link for Future extension of Bus bar module is available with existing GIS or Not?	i) Make of Existing 220kV GIS module at New Khimti and Barhabise is TBEA,China and at Lapsiphedi is GE/ABB,China ii) Space is available for new 220 kV bays iii) Extension of Existing 220kV GIS building is not envisaged under present scope of works.iv)Additional illumination, VMS, earthing,cable trench and cable tray required for new 220kV bays is under present scope of works.v) shall be provided during detail engineering. vi) Detail information shall be provided during detail engineering.
17	400kV New Khimti GIS Substation 400kV Barhabise GIS Substation 400kV Lapsiphedi GIS Substation Revised BPS sl.no.I, 2.b	As per referred item, special relay test kit -1 No is mentioned. Kindly confirm whether it is numerical relay test kit or relay tool kit as per cl.no. 31.1.1 of chapter-17, CRP specification.	One relay test kit shall comprise of the following equipment as detailed here under: a) 3 sets Relay tools kits b)2 nos. Test plugs for each type of TTB c)2 nos. Test plugs for using with modular type relays (if applicable). So bidder is to quote accordingly
18	400kV New Khimti GIS Substation 400kV Barhabise GIS Substation 400kV Lapsiphedi GIS Substation Revised Single Line Diagram	As per revised SLD of all 3 substations, 400/220kV(LV) side of ICT has been connected through EHV cable to 220kV GIS ICT module.However, in revised BPS sl.no. B.a.1 & b.1, SF6 to Air bushing and SF6 Gas insulated Bus duct, further as per sl.no. Q, 220kV Cable are also mentioned in our scope.As both the clauses are contradicting each other,please confirm the actual requirement.	Please refer Vol II, Chapter-1 PSR(revised wrt. Amendment no. 3) S.N. 26 page-45
19	400kV New Khimti GIS Substation 400kV Barhabise GIS Substation 400kV Lapsiphedi GIS Substation Amendment, Chapter-1 - PSR, cl.no.7 & Page no.7,19	As per referred clause, For Khimti S/S, as extension of 2 sets of 3150A,220kV, 40kA, SF6 GIS bus bar shall be in scope of work For Barhabise s/s, extension of 2 sets of 3000A, 220kV, 40kA, SF6 GIS bus bar is mentioned in scope of work. For Lapsiphedi s/s, extension of 2 sets of 4000A, 220kV, 40kA, SF6 GIS bus bar is mentioned in scope of work. In each substation, different ratings mentioned. Kindly confirm the actual requirement.	Bidder is to quote as per the provision of bid document



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20	400kV Barhabise GIS Substation Revised BPS sl.no.F.1	As per referred item, 336kV Surge arrester -19Nos. mentioned.However, In revised SLD,Barhabise-GIS-SLD-1, surge arrester has shown in 4 Nos. of line bays, 2 Nos. of ICT bays & in one number of reactor bay. Hence, 7x3=21Nos +1 for spare transformer. In total, 22Nos. of surge arresters are required.Kindly confirm & revise the schedule accordingly.	Bidder is to quote as per BPS
21	400kV New Khimti GIS Substation 400kV Barhabise GIS Substation 400kV Lapsiphedi GIS Substation General	We presume that sufficient no of AC /DC feeders for 2 Nos of 220kV ICT bays are already available in the existing LT switchgear. Our scope of work is limited to supply of LT power & control cable from existing AC/ DC board to proposed bays. we are not envisaging any augumentation of existing AC/DC panel, Battery & Battery Charger in our scope.Please confirm.	Bidder is to quote as per the provision of bid document
22	Section 3 - Evaluation and Qualification Criteria(Revised wrt. Amendment 1) CI-2.5 (1)	<p>As per referred clause, it is mnetioned that , "Must have successfully carried out the complete type test including Dynamic Short Circuit (DSC) test as per IEC over last 10 years period as on the originally scheduled date of bid opening in Short-Circuit Testing Liaison (STL) - Accredited Laboratory on :</p> <p>- 400 kV voltage class, three phase 315 MVA (or single phase 3 X 105 MVA ) Transformer.</p> <p>(a) However, IF the Bidder/Manufacturer has not conducted the complete type tests including DSC in Short-Circuit Testing Liaison (STL) - Accredited Laboratory THEN the bidder has to submit undertaking letter along with bid to carry out the complete type test on the above mentioned ratings of transformers including DSC in Short-Circuit Testing Liaison (STL)- Accredited Laboratory without any extra cost to the employer.</p> <p>(b) However, IF the Bidder/Manufacturer has conducted the type test including DSC in STL but it is beyond the 10 years as on the date of bid opening and or of the higher rating of Transformer THEN the bidder has to submit undertaking letter along with bid to carry out the complete type test on the above mentioned ratings of transformers including DSC in Short-Circuit Testing Liaison (STL)- Accredited Laboratory or in NABL Accredited Laboratory witnessed by - authorized STL and NEA authorized representatives without any extra cost to the Employer.</p> <p>With reference to the above clause it is to be noted that various manufacturers have done DSC test in STL accredited laboratory and the other type tests in the NABL accredited laboratory.</p> <p>Hence in this, we request you to kindly accept the manufacturers to carry out only DSC in STL lab and the other type tests in NABL accredited laboratory.</p> <p>The above clause was accepted in other tenders of NEA such as 400/220kV GIS Hetauda &amp; Inaruwa and 220kV GIS Substation tenders in Manag / Khudi</p>	shall be as per the Provision of Bid documents



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23	Section 3 - Evaluation and Qualification Criteria(Revised wrt. Amendment 1) CI-2.5 (1)	<p>As per referred clause, it is mentioned that , "Must have successfully carried out the complete type test including Dynamic Short Circuit (DSC) test as per IEC over last 10 years period as on the originally scheduled date of bid opening in Short-Circuit Testing Liaison (STL) - Accredited Laboratory on :</p> <p>- 400 kV voltage class, three phase 315 MVA (or single phase 3 X 105 MVA ) Transformer</p> <p>(a) However, IF the Bidder/Manufacturer has not conducted the complete type tests including DSC in Short-Circuit Testing Liaison (STL) - Accredited Laboratory THEN the bidder has to submit undertaking letter along with bid to carry out the complete type test on the above mentioned ratings of transformers including DSC in Short-Circuit Testing Liaison (STL)- Accredited Laboratory without any extra cost to the employer.</p> <p>(b) However, IF the Bidder/Manufacturer has conducted the type test including DSC in STL but it is beyond the 10 years as on the date of bid opening and or of the higher rating of Transformer THEN the bidder has to submit undertaking letter along with bid to carry out the complete type test on the above mentioned ratings of transformers including DSC in Short-Circuit Testing Liaison (STL)- Accredited Laboratory or in NABL Accredited Laboratory witnessed by - authorized STL and NEA authorized representatives without any extra cost to the Employer.</p> <p>We understand that if we submit Type test reports for 105 or 315 MVA Transformer, submission of Type Test Reports including Dynamic Short Circuit Tet reports for 53.33 MVA or 160MVA tranformer shall be waived off from conducting the tests. Please confirm.</p>	shall be as per the Provision of Bid documents
24	Vol-II Chapter 5 – Auto Transformer CI-3.13.1.	<p>As per referred clause, it is mentioned that "Bidder / Manufacturer should have successfully carried out Dynamic Short Circuit Test on any rating of 400 kV or above voltage class transformer as on the originally scheduled date of bid opening and shall enclose the relevant Test Report / Certificate along with bid. In case bidder has not successfully tested 400 kV or above voltage class transformer for Dynamic Short Circuit Test, their bid shall be considered technically non-responsive. Further design review of offered 400 kV class transformers shall be carried out based on design of short circuit tested 400 kV or above voltage class transformer."</p> <p>However bidder shall conduct design review of offered 400 kV class transformers shall be as per IEC60076-5 A.3.1 (Design review by check against manufacturer's design rules.) Please confirm</p>	shall be as per the Provision of Bid documents



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25	Section 3 - Evaluation and Qualification Criteria(Revised wrt. Amendment 1) CI-2.5(2)	<p>As per referred clause, it is mentioned that " Must have successfully carried out the complete type test as per IEC over last 10 years period as on the originally scheduled date of bid opening in Short-Circuit Testing Liaison (STL) – Accredited Laboratory on 400 kV voltage class GIS Switchgears (Circuit Breaker, Disconnecter, Grounding Switches, Instrument Transformers, SF6/Air &amp; Oil Bushing etc.);.</p> <p>However if the manufacturer has not conducted complete type tests in Short-Circuit Testing Liaison (STL)–Accredited Laboratory over last Ten (10) years as on the originally scheduled date of bid opening, bidder has to submit undertaking letter along with bid to carry out the complete type test in Short-Circuit Testing Liaison (STL) – Accredited Laboratory from offered Manufacturer without any extra cost "</p> <p>However, we request you to accept the type test reports witnessed by Short-Circuit Testing Liaison (STL) – Accredited Laboratory instead of conducted in Short-Circuit Testing Liaison (STL) – Accredited Laboratory.</p>	shall be as per the Provision of Bid documents
26	Chapter 1 –Project Specific Requirement (Revised wrt. Amendment 1) Clause No. 4.1 (ii)	As per referred clause, we understand that the Minimum ambient air temperature (°C) is -5.5 for Barhabise substation. Hence, kindly clarify if normal HT/MS steel or grade C structural steel as per IS 2062 is required to be used for Barhabise substation.	Bidder is to quote as per the provision of bid document
27	Chapter 1 –Project Specific Requirement & 01_BOQ-New Khimti_amend no.3 02_BOQ-Barhabise_amend no.3 03_BOQ-Lapsiphedi_amend no.3 Clause no-4.1 & Item no. 6	<p>As per referred clause, seismic requirement for proposed substation is 0.5g which is very Severe and much higher than the maximum critical value in IS:1893.</p> <p>As per referred BOQ, the type of reinforcement is given as Fe 500. Kindly clarify if Fe500 or Fe500D is required and amend the same accordingly, if required.</p>	Bidder is to quote as per the provision of bid document
28	400kV New Khimti GIS Substation 400kV Barhabise GIS Substation 400kV Lapsiphedi GIS Substation Amendment, Chapter-1 - PSR & Revised BPS Clause no. 1.4	As per referred clause, it is mentioned that supply of 220kV GIS module for two nos. of 400/220kV (LV) Auto transformer bays with busbar extension module are in our scope of work. Kindly clarify if the extension of the existing 220kV GIS building to house the new modules is in bidder's scope. If yes, kindly add separate item for 220kV GIS building in the price schedule.	Extension of Existing 220kV GIS building is not envisaged under present scope of works.



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29	General	<p>While going through the tender we observed that the following documents are not available in the tender documents.</p> <ol style="list-style-type: none"> <li>1. Format for Joint Venture Agreement</li> <li>2. Format for Joint venture - Power of Attorney</li> <li>3. Format for Letter of intent to enter into JV</li> </ol> <p>We request you to kindly arrange to issue the documents at the earliest.</p>	<p>Bidder shall prepare these documents by itself as per requirement of bidding document.</p>

