EUROPEAN UNION
DELEGATION TO THE REPUBLIC OF SERBIA

CONTRACTING AUTHORITY'S CLARIFICATIONS No. 4

Project title:
Electrical equipment for the reaction in emergency situations

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No.	Question	Answer
1.	Are the I/O details needed for dimensioning of RTUs also part of the Corrigendum No1?	Technical specifications for dimensioning of RTUs have been attached to the clarifications as annex to CORRIGENDUM No 1 to the Tender Dossier: S3_L3_01 TDS_RTU RTU for remote supervision and control over the 10kv line disconnector with a cabinet-mounted powering system S3_L3_02 TDS_RTU RTU for remote supervision and control over the 10kV SF6 load break switch with a cabinet-mounted powering system S3_L3_11 TDS_RTU RTU for 10 kV RMU block (1T+3F)
2.	Power transformer Requested is power transformer YNyn0d5, but only two winding will be used. Please confirm that is acceptable to deliver two winding power transformer Yd 110/35kV, with necessary elements for assuring of neutral point 35kV. Is it acceptable to predict two winding power transformer Yy0 110/35kV? Please confirm that ODAF solution instead of OFAF is acceptable. In such case, guaranteed temperature rises would be revised according to IEC 60076-2: Oil Temperature Rise: 60K, Average Winding Temperature Rise: 70K Please confirm that oil tub below transformer has to be for spillage only and will not be dimensioned for the full quantity of transformer oil (oil has to be transferred to oil pit – out of this Tender).	We confirm that it is acceptable to deliver two winding power transformer Yd5 110/35 kV, with all necessary elements for assuring of neutral point 35 kV. It is **not** acceptable to predict two winding power transformer Yy0 110/35 kV. We confirm that ODAF solution istead of OFAF is acceptable. We confirm that oil tub below transformer has to be for spillage only.

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	Since HV Neutral point shall be directly connected to earthing, please confirm that graded HV insulation is acceptable instead uniform HV insulation (this request have big impact on the dimension and weight of PT). Therefore proposed insulation levels for HV-N terminal would be: LI 250 AC 95. OLTC rated voltage shall be hence reduced to 72.5kV instead of requested 123kV. Please confirm that guaranteed Noise Level (78dB) shall be considered at 2m distance from transformer surface, as per IEC 60076-10. Please confirm that connection between 123kV Switchgear and power transformer can be realised with 123kV cables and Plug-in type HV Terminals (Pfisterer) at power transformer. Please confirm is it acceptable to predict arrival of HV cables from the bottom side of PT. Requested voltage drops at 2.20 and 2.21 of TDS are not compatible with requested short circuit impedance and losses. Therefore these values would be revised in technical documentation.	We confirm that graded HV insulation is acceptable instead of uniform HV insulation, but proposed insulation level of LI 250 AC 95 is not acceptable. Instead, HV neutral point can have rated voltage of 72,5 kV, and accordingly insulation level LI 325 AC 145. OLTC rated voltage **can** be reduced to 72,5 kV instead of requested 123 kV. We confirm that guarenteed Noise Level (78dB) shall be considered at 2m distance from transformer surface, as per IEC 60076-10. We confirm that connection between 123 kV SWG and power transformer can be realized with 123 kV cables and Plug-in type HV Terminals (Pfisterer) at power transformer. It is acceptable that HV cables go from the bottom to the upper parts of the transformer, and thus be connected either on the side or on the top of the transformer, but it is not acceptable their arrival into the transformer from the bottom due to difficulties in later maintenance (replacement). It is important to respect values for short circuit impedance and losses and accordingly offered values for voltage drops will be accepted.
3.	<u>SLD</u> Please confirm that is acceptable to deliver voltage transformers which are AIS type (out of the SF6 gas, as surge arresters). There is no switching element for direct earthing of the OHL (for safety purpose, before any works at phase conductors). Please confirm that you do not ask for any fast earthing switch, by which can be also discharged OHL. Please confirm that position of the CT can be other than shown at SLD.	We confirm that it is acceptable to deliver voltage transformers which are AIS type (out of the SF6 gas, as surge arresters). There was a mistake in technical specification. Appropriate fast earthing switch is necessary and it should be included in mobile substation. We confirm that position of the CT can be other than shown at SLD, but should be optimal in the way that normal operation and protection of the mobile substation mustn't be violated.

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4.	Please confirm that Reference of the parent company could be acceptable for proofing of the company Technical capacity.	Reference of the parent company is acceptable to prove the company Technical capacity, but its specific confirmation in writing is necessary that the bidder may use it. Please refer to Article 16, point 3 of the Contract Notice (capacity-providing entities).
5.	Power Cables Lot1: In Item 8.11 (Annex II: Technical Specification) is mentioned the necessary cable connectors. In our interpretation the Power cables (XHE) shouldn't be included. If not please inform the necessary quantity and length.	Power cables XHE 49z for connection between secondary side of the transformer and transformer bay 35 kV should be included. The length should be sufficient to connect transformer secondary winding with the transformer bay. However power cables for 35 kV outgoing bays shouldn't be delivered.
6.	Power transformer Lot 1: Regarding the 20MVA transformer. It is requested in the specification that the HV neutral should have uniform insulation. We propose non-uniform insulation (BIL=170kV) in order to achieve a lighter and smaller transformer. Please confirm.	It is accepted to have non-uniform insulation on HV side, and thus insulation level of HV neutral point can be reduced, but acceptable rated voltage is 72,5 kV, LI 325 AC 145.
7.	Power cables Lot2: In Item 7.11 (Annex II: Technical Specification) is requested 2 cable drums with 1x95mm2, 12kV cable. In our interpretation is necessary to include in total 6x1x95mm2, 12 kV cables, and each cable will have 1000m. Please confirm the cable quantities, and the maximum dimensions for the cable drums. Confirm if the following cable quantities should be transported in the trailers are correct: 35 kV cables: 3x1x150mm2 (each cable with 50m length); 10 kV cables: 3x1x240mm2 (each cable with 50m length);	It is necessary to deliver 2000m mining cable 1x95 mm^2, 12 kV. Due to the fact that this is quite length for only 2 drums, it is acceptable to deliver 4 drums with 500m of cable. These drums are not predicted to be on the trailers, but deliver separately. There are no specific limitations for drums' dimensions, they only have to be delivered to warehouse. We confirm that these quantities are correct. It is envisaged that those cables are on the drums on the transformer's trailer.