

Clarification No-I_Technical dt 26.05.2026 to the bidding documents for 765kV Reactor Package 7RT-28-BULK for 15x110 MVAR, 765KV (1-Ph) Reactors under Bulk Procurement of 765kV & 400kV class Transformers & Reactors of various Capacities (Lot-7). Spec No. CC/NT/W-RT/DOM/A01/26/05903														
Sr.No.	Ref Section	Provision in bidding document	Bidders Queries	POWERGRID Reply										
1	Cl. No 1.3 of Technical Specification, 765kV Shunt Reactor , C/ENGG/MODEL-SPEC/765kV SR Rev. 08	Any material and equipment not specifically stated in this specification but which are necessary for satisfactory operation of the equipment shall be deemed to be included unless specifically excluded and shall be supplied without any extra cost.	Our offer shall be with fittings & accessories as per technical specification, which is suitable for satisfactory operation of reactor. Any additional material and equipment if required shall be provided with cost implication. Kindly accept.	In this regard, the provisions of Bidding Documents shall remain unchanged.										
2	Cl. No 3.5 of Technical Specification, 765kV Shunt Reactor , C/ENGG/MODEL-SPEC/765kV SR Rev. 08	The Contractor shall despatch the Reactor filled with dry air at positive pressure. The necessary arrangement shall be ensured by the contractor to take care of pressure drop of dry air during transit and storage till completion of oil filling during erection. A dry air pressure testing valve with necessary pressure gauge and adaptor valve shall be provided. The dry air cylinder(s) provided to maintain positive pressure can be taken back by the contractor after oil filling.	Reactor can be stored with dry air filled condition upto 6 months after dispatch from factory. For longer storage, reactor need to be filled with oil as per OEM manual.	In this regard, the provisions of Bidding Documents shall remain unchanged.										
3	Cl. No 7.1.2 of Technical Specification, 765kV Shunt Reactor , C/ENGG/MODEL-SPEC/765kV SR Rev. 08	The requirement of post weld heat treatment of tank/stress relieving shall be based on recommendation of IS 10801.	IS 10801 is applicable to Pressurize Piping and Pressure vessel. As inside pressure of transformer tank is approx. 1 kg/cm2 and hence not come to Pressure vessel category. Hence, Not applicable.	In this regard, the provisions of Bidding Documents shall remain unchanged.										
4	Cl. No 7.1.6 of Technical Specification, 765kV Shunt Reactor , C/ENGG/MODEL-SPEC/765kV SR Rev. 08	The base of each tank shall be so designed that it shall be possible to move the complete transformer unit by skidding in any direction without damage when using plates or rails and the base plate shall have following minimum thickness:<table><tr><th>Length of tank (m)</th><th>Minimum plate thickness (mm)</th></tr><tr><td>Flat bases</td><td></td></tr><tr><td>over 2.5m but less than 5m</td><td>20</td></tr><tr><td>over 5m but less than 7.5m</td><td>26</td></tr><tr><td>exceed 7.5m</td><td>32</td></tr></table>	Length of tank (m)	Minimum plate thickness (mm)	Flat bases		over 2.5m but less than 5m	20	over 5m but less than 7.5m	26	exceed 7.5m	32	MS Plate IS 2062:2011 refer IS 1730:1989 for dimension of steel plate. 26mm thk Plate is not in IS standard, alternate solution is 25mm thk plate. Hence requesting for length of tank over 5m but less than 7.5m plate thickness shall be 25 mm thk. Kindly accept.	In this regard, the provisions of Bidding Documents shall remain unchanged.
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5	Cl. No 7.1.8 of Technical Specification, 765kV Shunt Reactor , C/ENGG/MODEL-SPEC/765kV SR Rev. 08	Tank, tank cover and associated structure should be adequately designed to withstand, without damage or permanent deflection / deformation, the forces arising out of normal oil pressure, test pressures, vacuum, seismic conditions and short circuit forces specified.	There is contradiction in the requirement. We understand the permanent deflection will be acceptable up to the values specified in clause no. 17 (ii) of DOC. No.: POWERGRID/STD/TEST PROCEDURE/TR-RT/REV02. Page No. 52 of 69. Kindly confirm.	In this regard, the provisions of Bidding Documents shall remain unchanged.										
6	Cl. No. 7.2.7 & 14.7.1.7 of Technical Specification,SECTION- 765 KV SHUNT REACTOR, C/ENGG/MODEL-SPEC/765kV SR Rev. 8 S. No. R - 3 of Specific Requirement (Section - Project) Rev. No. 10	S. No. R (Section-765kV Shunt Reactor, Rev. 08) - 3 of Specific Requirement (Section - Project) Rev. No. 10 says that the Reactor shall be provided with a 150 mm nominal diameter butterfly valve and bolted blanking plate, gasket and shall be fitted at the highest point of the Reactor for maintaining vacuum in the tank. Clause No.14.7.1.7: Valve for vacuum application on Tank : Type Gate Clause no 7.2.7 (As per Annexure - 10 - Specific Requirement) The Reactor shall be provided with a 150 mm nominal diameter Gate valve and bolted blanking plate, gasket and shall be fitted at the highest point of the Reactor for maintaining vacuum in the tank.	Since there is contradictory requirement in the specification in three different clauses. Our preference is 100 mm Gate valve as per our all previous supplies to PGCIL. Customer acceptance required.	Gate type valve shall be provided for vacuum application.										
7	Cl. No. 7.4 of Technical Specification,SECTION- 765 KV SHUNT REACTOR, C/ENGG/MODEL-SPEC/765kV SR Rev. 8	7.4 Foundation, Roller Assembly & Anti Earthquake Clamping Device The Reactor shall be placed directly on concrete plinth foundation. To facilitate the movement of reactor to its foundation over rail track, bi-directional flanged rollers shall be provided. It shall be suitable for fixing to the under carriage of Reactor. The rail track gauge shall be 1676 mm. Two rails shall be provided as per the drawing mentioned at Annexure-C.	Rails shall not be in bidder scope. Also, drawing referred in Annexure C is not available with the given specification Rev08. Kindly provide the drawing.	It is confirmed that rails are not in bidder scope. Further, standard foundation drawing shall be shared with successful bidder during detailed engineering										
8	Cl. No. 7.8, 7.9, 7.10 & 22.1 (i) of Technical Specification,SECTION- 765 KV SHUNT REACTOR, C/ENGG/MODEL-SPEC/765kV SR Rev. 8	7.8 Pressure Relief Device suitable canopy shall be provided to prevent ingress of rain water. 7.9 Sudden Pressure Relay suitable canopy shall be provided to prevent ingress of rain water. 7.10 Buchholz Relay suitable canopy shall be provided to prevent ingress of rain water. 22.1 (i) Magnetic oil level gauge	Canopy shall be provided as per bidder standard practice. If any specify requirement, kindly share the drawing of canopy to consider in our scope of supply.	In this regard, the provisions of Bidding Documents shall remain unchanged.										
9	Cl. No. 7.19.14 of Technical Specification,SECTION- 765 KV SHUNT REACTOR, C/ENGG/MODEL-SPEC/765kV SR Rev. 8	Winding paper moisture shall be less than 0.5%	Noted, However testing shall be done with Karl fischer method. Kindly confirm.	In this regard, the provisions of Bidding Documents shall remain unchanged.										

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10	Cl. No. 14.1 of Technical Specification,SECTION- 765 KV SHUNT REACTOR, C/ENGG/MODEL-SPEC/765kV SR Rev. 8	All valves upto and including 100 mm shall be of gun metal or of cast steel/cast iron. Larger valves may be of gun metal or may have cast iron bodies with gun metal fittings. They shall be of full way type with internal screw and shall open when turned counter clock wise when facing the hand wheel.	As all Butterfly valve above 100mm are of Cast Iron bodies and brass fittings. For 100mm and 80mm Butterfly valve used at radiator also need to supply as Cast Iron bodies and brass fitting which is superseding the technical specification requirement of Cast Iron valve(i.e cast iron bodies and mild steel fittings). As we are superseding the technical specification requirement. Customer acceptance required.	In this regard, the provisions of Bidding Documents shall remain unchanged.
11	Cl. No. 14.6 of Technical Specification,SECTION- 765 KV SHUNT REACTOR, C/ENGG/MODEL-SPEC/765kV SR Rev. 8	Gland packing/gasket material shall be of “O” ring of nitrile rubber for all the valve"s flanges. All the flanges shall be machined.	All “O” ring used for Valve mounting flange are as per technical specification and of “NBR” material. Valve Gland Packing is of “PTFE” (Teflon) material suitable to transformer oil and atmospheric air. PTFE required for better Oil sealing purpose compared to NBR as per Approved valve supplier. Customer acceptance required.	In this regard, the provisions of Bidding Documents shall remain unchanged.
12	Cl. No. 14.7.2 of Technical Specification,SECTION- 765 KV SHUNT REACTOR, C/ENGG/MODEL-SPEC/765kV SR Rev. 8	All valves shall be painted with a shade (preferably red or yellow) distinct and different from of main tank surface and as per the painting system and procedure specified.	There is no such painting system and procedure specified in technical specification and in Annexure- E. Painting specification shall be followed as per PGCIL approved supplier recommendation. Customer acceptance required.	Bidder understanding is in order
13	Cl. No.17.1.1 & 17.1.2 of Technical Specification, 765kV Shunt Reactor , C/ENGG/MODEL-SPEC/765kV SR Rev. 08	17.1.1. All required power & control cables including optical cable, patch chord (if any) upto Common MB shall be in the scope of contractor. Further, any special cable between CMB to switchyard panel room/control room shall be under the present scope. 17.1.2. Fiber optic cable, power cable, control cables, as applicable, between CMB to switchyard panel room/control room and power supply (AC & DC) to MB and integration of above said IEC-61850 compliant equipment with Substation Automation System shall be under the scope of EPC contractor.	17.1.1. We will supply all required power & control cables including optical cable, patch chord (if any) upto Common MB. Further, for any special cable between CMB to switchyard panel room/control room - We will follow BPS. We will supply only thosed cables mentioned in BPS. 17.1.2. We will supply fiber optic cable - 100 m per 1-phase 765KV class Reactor unit as mentioned in Section - Project	Bidder understanding is in order
14	Cl. No. 22.(xxix) of Technical Specification,SECTION- 765 KV SHUNT REACTOR, C/ENGG/MODEL-SPEC/765kV SR Rev. 8	xxix) All Cables (Power, control and shielded / twisted pair for 4-20mA cable from Reactor MB, etc. (as applicable) to CMB and CMB to employer"s C&R panell shall be under the present scope. Any special cable if required to be included upto employer"s C&R panel.	We will supply cables as mentioned in Bid Price Schedule.	In this regard, the provisions of Bidding Documents shall remain unchanged.
15	GTR Rev 15, Annexure B	SEISMIC WITHSTAND TEST PROCEDURE	Seismic withstand test is not applicable on offered reactors. Kindly confirm.	Seismic withstand test is not applicable on offered reactors. However Reactors shall be designed for Seismic Level of Zone-V (as per IS 1893)
16	Section Project Clause No. 2.2 e	One No. CMB shall be supplied for 2 x 1-Ph or 3 x 1-Ph 765KV Class Reactor unit at one location.	Our offer is for 15 Nos. shunt reactors and we are considering only 5 No. CMB against 15 Nos. Shunt reactors. Based on 3 x 1 Phase 765 kV class reactor.	In this regard, the provisions of Bidding Documents shall remain unchanged.
17	Section Project Clause No. 9.2 i	Buchholz Relay (including GCD), Pressure Relief Device, Sudden Pressure Relay, Magnetic Oil Level Gauge, Aircell rupture relay, Oil Temperature Indicator and Winding Temperature Indicator shall comply with requirement of IEC 60076-22-1 and shall be suitable for 220V DC application.	We are complying this clause for WTI & OTI. Our vendor for Buchholz Relay (including GCD), Pressure Relief Device, Sudden Pressure Relay, Magnetic Oil Level Gauge, Aircell rupture relay have done type test of switches as per IEC standard. Type test of the same will be submitted to you shortly	In this regard, the provisions of Bidding Documents shall remain unchanged.
18	Section Project Clause No. 9.2 iii (b)	Double compression type metallic cable gland to be provided	PRD, SPR, B/R, MOLG's comes with plug-in socket type arrangement instead of double compression gland at device end and enclosure side conduit connector shall be used as per PGCIL specification.For aircell rupture relay both end double compression type gland are used.	Double compression type metallic gland are to be ensured at device end (PRD, SPR, Buchholz Relay, Aircell rupture relay and MOLG)
19	Section Project Clause No. 9.2 iv (d)	Double compression type metallic cable gland to be provided.	This is not applicable for WTI & OTI	In this regard, the provisions of Bidding Documents shall remain unchanged.

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20	Clause No. 25 (ITB cl. No. 11.3)	# Bidders are not required to quote the Local Transportation, In-transit insurance, loading and unloading charges (hereinafter referred to as F&I charges) in their bid. Prices regarding F&I charges shall be finalized with the Contractor based on actual destination decided by Employer prior to scheduled dispatch of the equipment in the following manner: After decision in respect of Destination has been taken by Employer, Contractor shall be asked to submit F&I charges for the finalized destination along with documentary evidence towards justification of prices such as copy of Rate Contract entered into by Contractor, Quotation etc. This activity shall be started preferably five months prior to the scheduled dispatch of the Equipment.	As site is not known to us at bidding stage, we are considering all 15 reactors are required for one site. If there are multiple site, PGCIL to provide additional charges for site ETC activities. Request PGCIL to provide storage charges for site delay cases	In this regard, the provisions of Bidding Documents shall remain unchanged.