

Driplex Ref.: T694/DWE/17-642/1613
Project: CONDENSATE POLISHING UNIT AS PER TECHNICAL SPECIFICATION NO.PE-TS-423-155A-A001 FOR 1X800 MW NORTH CHENNAI STAGE-III BTG
Tender No.: PE/PG/TAN/E-5612/2017 DATED MAY 06, 2017
Doc. Title: **PRE-BID QUERIES (TECHNICAL)**

Sr. No.	Volume/Section	Sub Section	Clause No.	Page No.	Specification Requirement	Clarification	Reason for Clarification / Bidder's Assumption	BHEL Reply dated 20-Jun-2017	Driplex Queries dated 06-Jul-2017	BHEL Reply dated 15-July-2017
Mechanical Clarification										
1.	Section I	IA	4.0, A, Serial No. 14	12 of 633	Total Nos. of Resin Charge	Total resin charges shall be mentioned for the project is twelve (12) numbers as per Technical specification however as per our assumption total 6 Nos. resin charges is required which is as follows. (i) 3 Nos. resin charges for 3 Nos. service vessel (ii) 1 No. resin charge for cation regeneration cum mixed resin storage vessel (iii) 2 Nos. resin charge for commissioning (iv) 1 No. Resin charge for mandatory spare. Hence only 6 Nos. of resin charges is required.	M/s BHEL is requested to confirm the Nos. of resin charges required for the project.	Regarding Total Nos. of Resin Charges, bidder to follow the tender specification.	Noted	Point closed.
2.	I	IA	5.05.17 and 3.0, 3.1, d	43 of 633 and 266 of 633	Resin traps at the common outlet header of regeneration vessels	As per technical specification Page No. 43 of 633 Resin trap shall be of steel construction and internals shall be of SS-316 construction. As per technical specification Page No. 266 of 633 Housing: MSRL-IS1239 (with RL-3 mm in two layers), lining Shore	Contradiction in MOC of resin trap in specification M/s BHEL is kindly clarify.	Bidder to follow the tender specification.	Noted	Point closed.

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						hardness of 65 ± 5 on Shore 'A' scale as per IS 4682 Part I. with SS 316 Internals.				
3.	Volume II Section 2	Part 2.1 Mechanical Works	2.1.7.7	327 of 633	DM Water for Regeneration	As per M/s TANGEDCO Technical specification DM water required shall be drawn from nearest terminal point in pipe rack 1 or 2. In case separate DM Water Storage tank is required for CPU same shall be provided. The separate DM (CPU) tank, if required, tank shall be of mild steel construction with epoxy coating and necessary DM tank accessories like CO2 absorber, polypropylene ball layer etc. shall be provided. As per M/s BHEL Technical specification and scope of supply DM Water Storage tank is not included in bidder scope.	M/s BHEL is requested to clarify.	DM Water Storage tank is not included in bidder scope.	Noted	Point closed.
4.	Volume II Section 2	Part 2.1 Mechanical Works	2.1.7.8	327 of 633	Effluent Disposal System	As per M/s TANGEDCO Technical specification Two (2x100%) capacity Waste Recirculation / Disposal pumps of horizontal centrifugal type with priming arrangement shall	M/s BHEL is requested to clarify.	Waste Recirculation / Disposal pumps of horizontal centrifugal type with priming	Noted	Point closed.

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						be supplied for waste recirculation and disposal Effluent Treatment Plant. As per M/s BHEL Technical specification and scope of supply Waste Recirculation / Disposal pumps of horizontal centrifugal type with priming arrangement is not included in bidder scope.		arrangement is not in bidder scope.		
5.	Volume II Section 1	Chapter 6	9.0	226 of 633	CENTRAL DOCUMENTATION FACILITY	Bidder shall provide a Central Documentation Facility in the room identified at TANGEDCO /Headquarters, which shall be designed to store all the technical documents, drawings, manuals, data sheets etc., as given in respective chapters of Technical Specifications. This room shall be equipped with adequate facilities for reading as well as duplication of the drawings, data sheets etc. these facilities shall include but not limited to the following for carrying out works related to this project exclusively at TANGEDCO / HQ:	M/s BHEL to clarify that this facility is not in bidder scope.	The CENTRAL DOCUMENTATION FACILITY shall be not part of bidders scope of supply.	Noted	Point closed.

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						(i) Three (3) Nos. work stations (ii) Three (3) Nos. Laser Printer A4 Size Coloured (iii) Two (2) Nos. Laser Colour Plotters of A0 Size, (iv) Two (2) Nos. of Heavy Duty Photo Copier of A4 Size, (v) Two (2) Nos. of Heavy Duty Photo Copier of A4 Size with sorting facility.				
						Specification for above Hardware shall be furnished in line with the specification considered in Control & Instrumentation Volume II Section 2 Part 2.3. Complete consumables for the above, with necessary racks (Min. 06 Nos.), Special Cabinets (Min.06 Nos. made of 18 SWG sheet thickness) for Storage. Modular furniture, tables, chairs etc., shall be provided.		The same shall be not part of bidders scope of supply.	Noted	Point closed.
6.	Volume II	Part 2.1 Mechan	2.1.5.6.22 ii.	406 of 633	Control Valve	As per As per M/s TANGEDCO Technical specification following	M/s BHEL to confirm.	The Bypass control valve station provided for CPU	Noted	Point closed.

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	Section 2	ical Works				Control valve system is mentioned 1. One (1) pneumatically/hydraulically operated control valve. 2. One (1) motor operated isolation valve at the upstream side of control valve. 3. One (1) manual operated isolation valve at the downstream side of the control valve. 4. One (1) motor operated inching type regulating bypass valve. 5. One (1) motor operated isolation valve at the upstream side of the bypass valve. 6. One (1) manual operated isolation valve at the downstream side of the bypass valve. As per M/s BHEL technical specification only one (1) No. Control valve along with One (1) No. manual operated isolation valve at the downstream side & One (1) No. manual operated isolation valve at the		shall be as per CPU P&ID. Bidder to follow the same.		

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						upstream side of the control valve is required.				
C & I Clarification										
1.	Volume II Section 2	Part 2.5 Mechanical Works	Type test Requirement	17 of 30	Type test of LIE/LIR, to be specifically conducted for degree protection	Degree of protection test is applicable only for enclosure but we are using LIR and hence it is not applicable.	Please confirm.	LIRs shall be provided for covered areas only. For LIR degree of protection test is not required.	Noted	Point closed.
2.			Specific Technical Requirements (C&I), point No.1	313 of 633	DCS and all related panel and mimic, OWS/EOWS etc to be supplied by BHEL as per specification. Wherein point No.2 of same page i.e. "The_ vendor_ shall_ provide_ complete_ Instrumentation_ for_ control_ monitoring_ and_ operation_ of_ entire_ CPU.". Both statements are contradictory. We suppose that Automation related items i.e DCS/PLC/ related	Please clarify the scope.		Instrumentation shall be provided by Bidder. However, controls shall be DCS based, which shall be in BHEL's scope.	Noted, for DCS and all related items as list out left side along with UPS.	Point closed.

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					panel /OWS/EOWS/ mimic panel / GIU etc are not in Driplex Scope of supply					
3.			Point No.11	340 of 530	Specification is not clear for the MOC of Junction box as specification has specified both MOC i.e. CRCA and FRP. MOC of Junction box as specification has specified both MOC i.e. CRCA and FRP.	Please clarify		Bidder query is not clear. However, Bidder to follow Tender Specification SUB-SECTION IIC - GENERAL TECHNICAL REQUIREMENTS (C&I) – Clause 2.3.2.12 Junction Box Specification, Page 570 of 633.	Noted	Point closed.
4.			Point No.11 & 12	314 of 633	Redundancy of sensor	Unclear	Please mark on the P &ID where redundancy of sensor is required.	Instruments have been marked on P&ID as minimum requirement. However, Bidder to take care of other specification requirements. Any instruments required for completeness of the system shall be provided by Bidder.	As per specification redundancy 2 out of 3 and 1 out of 2 are to be followed. (1) As per our past experience and our plant criticality, we never advised nor offered triple redundancy unless asked by the client and hence we are not considering triple redundancy in this project. In case M/s BHEL wants please specify the area.	Bidder to follow CPU tender P&ID in general. However, any instrument shown as single in the CPU-P&ID, if used for interlock purpose shall be considered as dual

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									(2) It is understood that redundancy whether it is dual Or triple, it is not applicable for any type of analysers. Please confirm or specify type of analyser and area along with type of redundancy (3) Technical specification also calls for 1 out of 2 logic and the clause is "sensors with 1 out of 2 logic for all other control & interlock (Analog & Binary) application / service. If we consider this clause then instruments shown in the P & ID do not match with the requirement and the areas are: - DPT across service vessel - Common Inlet header temp. Transmitter. - Resin transfer line pressure transmitter. N. pit both chamber level transmitters. - DM water pump common header flow transmitter.	redundant. Bidder to consider the same in their scope.

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									f. Acid and alkali dilution water flow transmitter.	
5.			2.3.3.1	546 of 633	Instruments requirement in term of instrument is not matching with P&ID	Unclear	Please mark the instruments on the P&ID as per requirement.	Instruments have been marked on P&ID as minimum requirement. However, Bidder to take care of other specification requirements. Any instruments required for completeness of the system shall be provided by Bidder.	Refer Point no-4	Please refer BHEL reply of Point no-4 above.