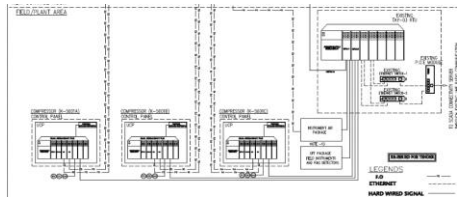




**KPD-TAY COMPRESSION PROJECT**  
 Tender Enquiry No.: PROC/FC/PROJ/KPD-TAY/COMP/5313/2022  
**PRE-BID CLARIFICATION # 37**



One of the bidder has asked following queries, OGDCL/ENAR's response is as follows:

Sr. No.	Tender Documents Reference	Bidder's Query	OGDCL/ENAR's Response																																				
1	Volume-II\4- Volume-IIID (Instrument)\0258-IMA-6004-1	As mentioned in the document 0258-IMA-6004-1 "6.1 Integrated Condition Monitoring System/module shall be provided pre-installed in control panel for machine vibration measurement.". For vibration monitoring system, there are 2 proposals: 1.Independent system with compressor unit PLC; 2.Wire vibration sensors to the compressor PLC system, using the compressor PLC system as the vibration monitoring system. Please confirm which one is acceptable for this project.	Proposal No.2 seems to be more appropriate option. However this shall further be finalized during detailed engineering stage.																																				
2	Volume-II\1- Volume-IIA (Process)\4- P&IDs\0258-PB-2100-0 Volume-II\4- Volume-IIID (Instrument)\0258-IMF-6309-1	As mentioned in the document 0258-PB-2100-0 "NOTE20. COMPRESSORS UCPS SHALL ALSO CONNECT WITH ALREADY INSTALLED EXISTING RTU OVER SOFE-LINK(MODBUS TCP/IP) FOR TRANSFERRING OF COMPLETE COMPRESSION DATA TO PLANT HMIS THROUGH ALREADY ESTABLISHED COMMUNICATION LINK BETWEEN TAY-3 GGS RTU AND PLANT." and in the below picture from the document 0258-IMF-6309-1. There is only hard wire between compressor UCP to existing RTU showing on 0258-IMF-6309-1. And there is MODBUS TCP/IP requirement in 0258-PB-2100-0. Please indicate which communication interface of compressor units should be reserved for the 4 plants(TAY-3,Thora Deep -3,KPD,TAY).And indicate which communication interface will be redundant. 	Preliminary / Indicative Control Architecture layout for all four (04) facilities are attached with tender documents mentioning respective communication requirements. Further EPCC Contractor to develop in detail Control Architecture layout during detailed engineering stage.  Further, Important compressor data shall be required at DCS workstation / HMI at plant GPP, this requirement shall be finalized during detail engineering stage.  Refer 0258-IMF-6309-1 (Control System Architecture TAY-3), 0258-IMF-6312-1 (Control System Architecture Thora Deep -3), 0258-IMF-6313-1 (Control System Architecture KPD), 0258-IMF-6314-1 (Control System Architecture TAY).																																				
3	Volume-II\3- Volume-IIC (Electrical)\SLD	The single line diagram of Thora Deep-3/TAY-3/KPD/TAY shows that there is spare electricity load, please confirm whether these spare loads can supply power to the following equipment on the compressor. <table border="1" data-bbox="657 1044 1262 1138"> <thead> <tr> <th></th> <th>K-4601 (one unit)</th> <th>K-5601 (one unit)</th> <th>K-5701 (one unit)</th> <th>K-5801 (one unit)</th> <th>note</th> </tr> </thead> <tbody> <tr> <td>Compressor oil heater(kW)</td> <td>3</td> <td>1.5</td> <td>1.5</td> <td>3</td> <td>Run for 1 to 2 hours</td> </tr> <tr> <td>Engine oil&amp;water heater(kW)</td> <td>25</td> <td>12</td> <td>12</td> <td>10</td> <td>before starting up</td> </tr> <tr> <td>Pre-lube oil pump motor(kW)</td> <td>2</td> <td>1.5</td> <td>1.5</td> <td>1</td> <td>before starting up</td> </tr> <tr> <td>Heat tracing</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>Running with unit running</td> </tr> <tr> <td>One unit total (kW)</td> <td>34</td> <td>19</td> <td>19</td> <td>16</td> <td></td> </tr> </tbody> </table>		K-4601 (one unit)	K-5601 (one unit)	K-5701 (one unit)	K-5801 (one unit)	note	Compressor oil heater(kW)	3	1.5	1.5	3	Run for 1 to 2 hours	Engine oil&water heater(kW)	25	12	12	10	before starting up	Pre-lube oil pump motor(kW)	2	1.5	1.5	1	before starting up	Heat tracing	4	4	4	4	Running with unit running	One unit total (kW)	34	19	19	16		Please refer to relevant P&IDs and Specification for Reciprocating Compressor Doc# 0258-PU-8602, it is clearly illustrated that Nodal compressor Packages (K-5601A/B/C, K-5701A/B/C, K-5801) will be designed in such a manner that no external power shall be required. All the Compressor / Engine's auxiliaries shall drive their power from respective engine. Only Compressor's UCP & heat tracing (if required) will be powered from external supply source i.e. plant UPS system.  Further, Compressor / Engine's auxiliaries for FEC Compressors at KPD GPP (K-4601A/B/C/D/E) shall be supplied from dedicated field mounted explosion proof Distribution board. This field DB shall be powered from new Switchgear/MCC to be installed in MCC-5 supervisor Room (please refer SLD 0258-ELB-6604). Also, pre / post lube oil pumps shall be pneumatic and process gas coolers of the aforesaid compressors (K-4601A/B/C/D/E) shall be driven from their respective engine.
	K-4601 (one unit)	K-5601 (one unit)	K-5701 (one unit)	K-5801 (one unit)	note																																		
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4	Volume-II\1- Volume-IIA (Process)\4- P&IDs\0258-DS-1003-0 (DS of K-FEC at GPP) and 0258-PB-2106-0 Sheet 1 of 2 (Typical P&ID For Front End Compressors)	Refer to 0258-DS-1003-0 (DS of K-FEC at GPP) 6.2.6 the discharge Scrubber shall be provide, but in 0258-PB-2106-0 Sheet 1 of 2 (Typical P&ID For Front End Compressors) the discharge Scrubber is not mentioned, please confirm whether the discharge Scrubber is needed or not.	Final Stage Discharge Scrubber is not required.																																				



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Sr. No.	Tender Documents Reference	Bidder's Query	OGDCL/ENAR's Response								
5	Volume-II\1- Volume-IIA (Process)4-P&IDs\0258-DS-1003-0 (DS of K-FEC at GPP) and 0258-PB-2106-0 Sheet 1 of 2 (Typical P&ID For Front End Compressors)	Refer to 0258-DS-1003-0 (DS of K-FEC at GPP) Page 7 Note 1 VENDOR SHALL PROVIDE INLET ESDV OF 900# FLANGE RATING, but in 0258-PB-2106-0 Sheet 1 of 2 (Typical P&ID For Front End Compressors) Note 8 Compressor inlet ESDV & PCV shall be 600# rating. And in 0258-PB-2105-0 (P&ID For Front End Compressors at KPD GPP) the upstream pipeline pressure level of the K-4601 compressors unit is D2 corresponds to 600#, we recommend 600# for Inlet ESDV & PCV for K-4601 compressors, please confirm.	Confirmed.								
6	Volume-I\SEC - III (Scope of Work) Volume-II\1- Volume-IIA (Process)6-Datasheets\0258-DS-1000-0 (DS of Nodal Compressor at Thora Deep-3 GGS), 0258-DS-1001-0 (DS of Nodal Compressor at TAY-3 GGS), 0258-DS-1002-0 (DS of Nodal Compressor at TAY GPP), and 0258-DS-1003-0 (DS of K-FEC at GPP)	<p>As mentioned in the SEC - III (Scope of Work) "A steel structure shed shall also be provided on the compressor packages", and the requirement defined in the compressor's datasheet is that vendor to ensure that noise limit of 85 db. As per our design calculation and OEM feed back, Operational Noise Level for different stations shall be as follows:-</p> <table><tr><td>1. KPD-GPP:</td><td>121 db</td></tr><tr><td>2. TAY-GPP:</td><td>102 db</td></tr><tr><td>3. THORA DEEP-3 GGS:</td><td>101 db</td></tr><tr><td>4. TAY-3 GGS:</td><td>104 db</td></tr></table> <p>(A) Confirm acceptance of noise levels as mentioned above with Steel Structure Shed on all stations or on some of the stations. (B) Confirm acceptance of addition of Sound Proof Enclosure to ensure 85db noise limit which will have considerable cost impact on all stations or on some of the stations. (C) Confirm requirement of Steel Structure Shed in case Sound Proof Enclosure is installed to maintain 85db. as if Sound Proof Enclosure is installed, addition of steel structure shed would be useless.</p>	1. KPD-GPP:	121 db	2. TAY-GPP:	102 db	3. THORA DEEP-3 GGS:	101 db	4. TAY-3 GGS:	104 db	<p>Bidder to provide Steel structure Shed with bolted connections on all the stations for the Compressor Packages. However, the noise level mentioned by the Bidder is too high (specially for KPD-GPP). In this regard, Bidder to ensure noise limit as close as possible to 85 db(A) and maximum by 110 db (A).</p> <p>Further, Bidder shall provide shed alongwith lifting telfer system. Also the sheds should be adequately designed and spaced to ensure sufficient air flow across the covered areas without the potential of engines' heat traps within shed.</p> <p>Moreover, refer to Clause 3.8 of Section-III (Scope of Work) of Tender Documents</p>
1. KPD-GPP:	121 db										
2. TAY-GPP:	102 db										
3. THORA DEEP-3 GGS:	101 db										
4. TAY-3 GGS:	104 db										