

## IGL Bhawan, 4, Community Center, Sector-9, R.K. Puram, New Delhi - 110022

### TENDER NO. IGL/ET2/CP/CP18542 SUPPLY OF DECOMPRESSION UNITS (DCU)

Sr. no.	Document No.	Page No.	Tender Clause No	IGL Specifications & Requirement	Queries	IGL Reply
1	Tech_Vol_CP18542	Pg.20 of 333	6.0 TECHNICAL REQUIREMENTS	The movable type decompression skid shall consists of strainer/filter, twin stream two stage regulators, gas fired (for 500 and 1000 SCMH) and electric (for 2000 SCMH) water bath heater as per attached typical P&ID, which shall be designed and supplied as a single compact skid.	We understand that skid will be mounted on a fixed platform and shall not be movable type. Hence, this point is not applicable. Kindly confirm bidder understanding is correct.	Skid should have suitable lifting lugs on the top side, which are required in case the skid is to be moved from one location to another.  Bidder understanding is correct
2	Tech_Vol_CP18549	Pg.25 & 278 of 333	7.4 Inspection and Test Plan Inspection And Test Plan (ITP)- Instruments (Doc. No ITP- INST/IGL/ET2/CP/CP18542)	Inspection of the skid shall be carried out as per EN 10204, type 3.2 (EN 10204 - 3.1 certification for bought out materials):  EN 10204, Type 3.2 certificates shall be provided for bought out items. Those shall be inspected by TPI appointed by Vendor.	Bidder understands that Inspection of the skid shall be carried out as per EN 10204, type 3.2 (EN 10204 - 3.1 certification for bought out materials). Please confirm bidder understanding is correct	Bidder understanding is correct
3	Tech_Vol_CP18549	Pg.27 of 333	7.10 Instrumentation Test Parra no.11	The Bidder shall provide any temporary cabling necessary for string testing, (i.e. temporary cabling between skid and off skid panel provided by the Bidder).	Bidder understands that scope of cable shall be within skid to JB only. Please confirm bidder understanding is correct	Contractor shall supply spares and consumables required as part of commissioning process
4	Tech_Vol_CP18549	Pg.242 of 333	PIPING SPECIFICATIONS-3C1	In PMS Pipe sizes mentioned : 1/2" - 2" 4" 6" 8" 12" 16" 18"	Request you to kindly share the thickness/ schedule for 3" size.	For 3" pipe, Schedule 80 should be used.
5					Kindly provide Piping specification for 600#.	For 600#, Bidder to refer Codes and Standards as per SPECIFICATION  NO  3C1. However, deatiled pipe design to be carreied out by bidder in accordance with the process parameters to be submitted during  Documents approval
6	Tech_Vol_CP18549	Pg.252 of 333	INSTRUMENT DATASHEETS	SLAM SHUT OFF VALVE datasheet for Down stream pressure protection, body material mentioned SS 316 or better.	Bidder understand that for second stage of SSV body material shall be ASTM A216 WCB.  Please confirm bidder understanding is correct	Bidder understanding is correct
7	Tech_Vol_CP18549	Pg.254 of 333	INSTRUMENT DATASHEETS	Closing time; Point no. 26 under Datasheet of SELF ACTUATED PRESSURE CONTROL VALVE	Bidder understand that Closing time is applicable for Slam Shut off valve. This point is not applicable for PCV. Kindly confirm	Bidder understanding is correct
8	Tech_Vol_CP18549	Pg.254 of 333	INSTRUMENT DATASHEETS	Accuracy of pressure reguation shall be 2.5% (or better) of the set pressure for the entire inlet pressure and flow range.  Point no. 4 under Notes; Datasheet of SELF ACTUATED PRESSURE CONTROL VALVE	We request IGL to accept Accuracy of +/-1% for SAPCV. Same is in line to FRS wherein Outlet pressure is injected to MDPE pipeline.	Tender Condition Prevails
9	Tech_Vol_CP18549	Pg.254 of 333	INSTRUMENT DATASHEETS	Pressure Regulator valve shall be fail open type. Point no. 4 under Notes; Datasheet of SELF ACTUATED PRESSURE CONTROL VALVE	We understand from P&ID that Intergral SSV is used with PCV for 2nd stage Regulation.  When Integral SSV is used with PCV, PCV shall be fail- close type. Kindly confirm.	PCV in Combination with SSV (which can be integral or separate) shall be Fail-Close Type. Tender Conditions prevail.



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10	Tech_Vol_CP18549				Kindly provide AVL for High pressure filter.	Please refer Note-2 of Doc. No RCVL/IGL/ET2/CP/CP18542 "Vendors outside the list can be accepted subjected to acceptance and approval of Past Track Record (of alteast 1 year) of the vendor by IGL"  Tender Condition Prevails
11	Tech_Vol_CP18549				Kindly provide datasheet of High Pressure Filter.	Refer Tender Clause 6.1.1 of Doc. NoDCU-TS/IGL/ET2/CP/CP18542 in Technical Volumne
12	Tech_Vol_CP18549				Kindly share Ball valve datasheet for 600#.	For 600#, Bidder to refer Codes and Standards as per SPECIFICATION NO  3C1. However, deatiled pipe design to be carreied out by bidder in accordance with the process parameters to be submitted during Documents approval
13	Tech_Vol_CP18549				Kindly share check valve datasheet for 600#.	For 600#, Bidder to refer Codes and Standards as per SPECIFICATION NO  3C1. However, deatiled pipe design to be carreied out by bidder in accordance with the process parameters to be submitted during Documents approval
14	Tech_Vol_CP18549				Bidder understand that, as per standard engineering practice,1/2" to 1.5" all the pipe fitting shall be of socket weld instead of buttweld. Kindly confirm.	Refer Note 7 in P&ID for 500 & 1000 SCMH DCU and Note 3 in P&ID for 2000 SCMH DCU
15	Tech_Vol_CP18549			Droop for second stage regulator shall not be more than 5 % over set point.	Bidder understand that alongwith the droop, lockup also shall be 5% & bidder need to provide type test certification for the same along with the bid.	Tender Condition Prevails
16	Tech_Vol_CP18549	Pg.261 of 333	Datasheet of MANUAL OPERATED BALL VALVES ABOVEGROUND SERVICES DATA SHEET (1C1)		Bidder understand below 2" valve shall be sockeweld.	Refer Note 7 in P&ID for 500 & 1000 SCMH DCU and Note 3 in P&ID for 2000 SCMH DCU
17					Kindly confirm design pressure for the skid.	Skid shall be designed for the maximum working pressure of 250 bar at inlet
18					Kindly provide Bid submission date extension of 3 weeks after receipt of queries reply.	Tender Condition Prevails
19	Comm_Vol_CP18542	Pg.7 of 87	3.0 DURATION OF CONTRACT / DELIVERY SCHEDULE 3.2	IGL shall issue Purchase Order (PO) against the awarded Contract, specifying the quantity to be delivered, on as and when required basis. Delivery of 1st lot shall be done within 20 weeks from the date of PO and for subsequent lot within 16 weeks from the date of PO.	Kindly confirm if there will be a minimum 5-weeks gap between the 1st PO and subsequent POs, in order to support production planning and resource allocation.	It shall be ensured that there is a minimum 4 week gap in the 1st and 2nd lot.



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20	Comm_Vol_CP18542	Pg.37 of 87	20.0 GUARANTEE / WARRANTY	This warranty shall remain valid for at least twelve (12) months from the date of successful commissioning of individual equipment or eighteen (18) months after the date of last shipment whichever is earlier or as specified under the Special Conditions of Contract.	This warranty shall remain valid for at least twelve (12) months from the date of successful commissioning of <b>Decompression Unit (DCU Skid)</b> or eighteen (18) months after the date of last shipment whichever is earlier or as specified under the Special Conditions of Contract.  Please confirm, bidder understanding is correct.	Bidder understanding is correct
21	Comm_Vol_CP18542	Pg.56 of 87	14.0 PRICE REDUCTION SCHEDULE (PRS) sub poinyt 14.3	Price Reduction will be applicable @½% of the total order value (inclusive of taxes) per week of delay or part thereof in supply/completion of work subject to a maximum (ceiling) of 5% of total order value (inclusive of taxes) for orders of goods, works and services.	Bidder understands that Price Reduction, as mentioned, will be applicable on the total order value (inclusive of taxes) of undelievered material of each subsequently issued Purchase Order (PO). Please confirm, bidder understanding is correct.	Bidder understanding is correct. Tender Conditions prevail.
22	Comm_Vol_CP18542	Pg.56 of 87	15.0 TERMS OF PAYMENTS Sub point no.15.3	5% of the invoice value shall be paid within forty-five (45) days after final acceptance of received material by Purchaser on pro-rata basis and submission of final documents.	Kindly accept final acceptance of received material shall be done & intimated within 7 days by Purchaser.	Tender Condition Prevails. Will be ensured at the earliest if the documents are complete and in compliance with tender conditions.
23			Gas Velocity		Kindly advise the gas velocity limitation to be considered for line sizing calculation.	Gas velocity in pipe must not exceed 30 metres / second
24		254 of 333	Pressure regulator datasheet : Accuracy of pressure regulation shall be 2.5% (or better) of the set pressure for the entire inlet pressure and flow range.		We understand that this +-2.5% accuracy is applicable for second stage pilot operated pressure regulator only because for 1 <sup>st</sup> stage direct acting type regulators with this accuracy is not available , all the direct acting type high pressure regulators provide +-5% accuracy. So we understand that 1 <sup>st</sup> stage PCV is acceptable with +-5% accuracy. Kindly confirm.	Bidder needs to specify the accuracy of first stage PCV in Datasheet during submission of documents. Tender Conditions prevail.
25			P&ID – Design rating		We understand that piping design rating after 1 <sup>st</sup> stage PCV-101 shall be of 300# upto 2 <sup>nd</sup> stage PCV with SSV PCV+SSV-101 and after 2 <sup>nd</sup> stage PCV + SSV design rating shall be of 150# rating. Kindly confirm.	Detailed piping design rating and sizing calculations shall be carried out by the bidder in accordance with the process parameters.
26		21 of 333	Inlet/Outlet Connection Inlet Size – 1", 2500# SS Tube with ferrule fittings Outlet size – Bidder to Provide (Maximum 3" for 500 and 1000 SCMH)		Kindly advise if bidder has to follow 1" 2500# size for all the DCU or bidder has to size considering process parameters and velocity limitation because considering 1" tube size, the gas velocity is coming very high i.e. approx. 28 m/s for 500 SCMH DCU , 55 m/s for 1000 SCMH DCU, 64 m/s for 2000 SCMH DCU at minimum inlet pressure of 20 kg/cm2 & 35 kg/cm2.Kindly clarify.	Bidder to provide 1" high pressure QRC type hose pipes at inlet.  Detailed piping/tubing sizing calculations shall be carried out by the bidder in accordance with the process parameters.
27		21 of 333	For 2000 SCMH DCU: Electric water bath heater shall be used. Heater vessel shall be designed according to ASME Sec VIII.		Since heater shell for water bath heater is a non-pressure part so we understand that code ASME Section VII Div.1 shall not be applicable here. Kindly confirm.	Tender Condition Prevails
28			PCV End Connection		We understand that threaded type PCV & SSV for $1^{\text{st}}$ stage regulation is acceptable. Kindly confirm.	Tender Condition Prevails
29			Material Certification		We understand that 3.1 certification is required for bought out items and TPI shall review the documents during final skid inspection. Kindly confirm.	Bidder understanding is correct
30			Inlet filter		We understand that y-strainer is acceptable in DCU. Kindly confirm.	Bidder understanding is correct
31			Control Panel		We understand that weather proof control panel is required with DCU. Kindly confirm.	Refer Page No. 21 of 333 in Technical Volume "Local control panel shall be suitable for outdoor installation"
32		Pg 6 of 333		General Description - The decompression skid shall consists of complete piping works with twin stream run, mono block burner with inbuilt blower, water bath heater along with Local Control Panel (LCP), electrical system with solar panel and battery backup with solar panel, and all the required instrumentation. The decompression skid shall be complete in all respect, movable and ready to use.	We understand that Solar Panel and Battery Backup shall not be applicable for the DCU skid. Solar panel and battery backup is not shown in P&ID on pg 332 of 333 also. Kindly confirm our understanding is correct.  If solar battery backup is required; then confirm no. of non sunny days/hours required.	Solar Panel is Required for Gas Fired DCU.  The solar panels shall be able to fully charge the battery bank after "3  NO SUN DAYS" cycle as per Tender Clause 4.2.4 (i) of Doc. NoSPEC-  SEPS/IGL/ET2/CP/CP18542 in Technical Volume.  Tender Condition Prevails



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33		Pg 7 of 333		Pt. 4 Description of Goods and Services	We request IGL to kindly confirm whether bidder scope includes erection, installation and commissioning of skids, or supervision of installation and commissioning only.	The scope of Supply, design, engineering, manufacture, integration, inspection, performance testing, shipment, Loading, Unloading & stacking at sites, designated store, supervision of installation, testing, commissioning  Tender Condition Prevails
34		Pg 21 of 333		Pt. 6.1.1 Strainer/Filter	We request IGL to kindly accept filter only at the inlet of DCU skid.	Tender Condition Prevails
35		Pg 25 of 333 Pg 277 of 333		Pt. 7.4 Inspection and Test Plan Section XXVI - ITP (DOC No ITP-INST/IGL/ET2/CP/CP18542)	As per pt. 7.7 ITP - Inspection of the skid shall be carried out as per EN 10204, type 3.2 (EN 10204 - 3.1 certification for bought out materials). However as per ITP on pg 278 of 333, EN 10204, Type 3.2 certificates shall be provided for bought out items. Those shall be inspected by TPI appointed by Vendor. Request you to kindly clarify type of certification required (3.1 or 3.2) for skid and bought out items.	Inspection of the skid shall be carried out as per EN 10204, type 3.2 (EN 10204 - 3.1 certification for bought out materials) as per Tender Clause 7.4 of Doc. NoDCU-TS/IGL/ET2/CP/CP18542 in Technical Volume
36		Pg 324/327 of 333		Recommended Vendor List	As per AVL pg 324 of 333, list of vendors for <b>INSTRUMENT FITTINGS</b> , <b>TUBE</b> , <b>VALVES AND MANIFOLDS</b> are given. Also, on pg 327 of 333 list of vendors for <b>SS Tube and Fittings</b> are given. Both the lists have some different list of vendors. We understand that list given on pg 327 needs to be followed for High Pressure SS 316 fittings. Kindly confirm our understanding is correct.	List at Page 324 to be refferd for Instrument Valves and Manifolds and list at Page 327 to be referred for SS Tube and Fittings
37		Pg 324/327 of 333		Recommended Vendor List	We understand that list of vendors given on pg 327 of 333 for SS Tube and Fittings needs to be followed for High Pressure SS 316 skid inlet and first stage ball valves also. Kindly confirm our understanding is correct.	Bidder understanding is correct
38		General		Datasheet for High Pressure SS 316 Ball Valves	We request IGL to kindly share datasheet for High Pressure SS 316 Ball Valves that would be required at skid inlet and first stage pressure regulation as same is not available in tender document.	SS ball valves shall be of ASTM A479/A351 Gr. CF3M Type 316 construction, full floating design, tested per ASME B31.3, MSS-SP99 or equivalent standards.  However, deatiled pipe design to be carreied out by bidder in accordance with the process parameters to be submitted during Documents approval
39		General		Mandatory Spares	We request to share mandatory spare list, if any, that is to be considered for the skids.  Also confirm whether spares cost would be part of bid evaluation or not.	Contractor shall supply spares and consumables required as part of commissioning process with no cost to Owner  Tender Condition Prevails
40		pg 7 of 87 Commercial Document		GA location allotment	Kindly share location wise allotment of type of skids enable us to consider freight accordingly.	Location-wise allotment of skids shall be provided as per IGL's requirement
41		pg 7 of 87 Commercial Document		Pt. 3.2 Delivery Schedule	Request to kindly share lot wise distribution for skid delivery.	Lot-wise distribution shall be done as per IGL's requirement
42		pg 7 of 87 Commercial Document		Pt. 3.2 Delivery Schedule	We request IGL to kindly accept delivery period of 24 weeks for lot 1 and 20 weeks for subsequent lots as delivery for most bought out items like meters, valves, high pressure regulators itself take 16 weeks.	Tender Condition Prevails
43		pg 56 of 87 Commercial Document		Pt. 15.4 Terms of Payment	For 10% payment release against ITC & FAT, we request IGL to accept following clause: In case Installation, Testing & Commissioning and Field Acceptance Test could not be executed within 03 months (instead of 12 months) from the date of receipt of skid at site/ store due to reasons attributable to Purchaser, above 10% payment shall be released on submission of CPBG of equivalent amount and undertaking by vendor for installation, Testing & Commissioning and Field Acceptance Test. The CPBG shall be valid for one year.	Tender Condition Prevails
44			P&ID		Kindly confirm at skid inlet Y strainer is applicable	Refer Clause 6 of (Doc. NoDCU-TS/IGL/ET2/CP/CP18542) in Technical Volume
45			Gas Detector		Please confirm Gas Detector is required or not.	Gas Detector is not required
46			Vendor List		Kindly confirm High Pressure ball Valve, Tube fittings Vendor List.	Refer SS Tube and Fittings in Doc. No RCVL/IGL/ET2/CP/CP18542 under Technical Volume
47			Canopy Skid		Please confirm skid canopy is required or not.	Skid Canopy is not required
48			Control, Panel		Kindly confirm Control panel weatherproof IP65 is acceptable or we have to provide Explosion proof panel with PESO certificate.	Refer Page No. 21 of 333 in Technical Volume "Local control panel shall be suitable for outdoor installation"