



A Joint Venture of Andhra Pradesh Gas Distribution Corporation Ltd. and
Hindustan Petroleum Corporation Ltd

CORRIGENDUM – 3

Date: 23.03.2019

Tender Document No: GGPL/KKD/C&P/PR 2034/2018-19/26 dated 06.03.2019

Subject: Tender for Supply of CNG Storage Stationary and Mobile Cascades for DBS(s) and Mother Stations of GGPL in East & West Godavari Districts

The following modifications to the subject tender is hereby authorized

S. No.	Description	Page No. / Clause No.	Amendment/Addition/ Modification
1	REPLIES TO BIDDERS QUERIES	-	As per Annexure-I of this document

All other terms and conditions of tender document remain unchanged

Authorized Signatory

ANNEXURE-I

Tender No. : GGPL/KKD/C&P/PR 2034/20118-19/26		REPLIES TO BIDDERS QUERIES				
S. No	Clause No.	Page	Tender Clause	Deviation	Clarification	GGPL Reply
1	1.2	130	The CNG specification should meet the IS 15403:2000 (E) natural gas quality designation for use as a compressed fuel for vehicles.	Standard reference number shall be corrected to "IS 15958" as per clause 3.8.1 of IS 7285 (Part 2):2017	The given reference number is for "Method for Determination of Sulphur Present in Sponge Iron After Separation of Non-Magnetic Materials"	Agreed
2	1.4.2.1,Pt.3	131	Banking cascade storage vessels have a design pressure of 275kg/cm2	The criteria 'Design Pressure' is not mentioned in cylinder standard, i.e. IS 7285 (Part 2):2017. Please refer design calculation formula (1) in clause 6.3.1 of IS 7285 (Part 2):2017	Maximum working pressure for cylinders is 255bar (260kg-f/cm2) at 15°C and the maximum working pressure for cascade is 250bar (255kg-f/cm2) at 15° C	Agreed
3	1.4.2.1, Pt.14	133	The interconnecting tube work shall be minimum of 3/4" OD tubing.	The interconnecting tube work shall be minimum of 3/4" OD tubing, except pressure gauge line and vent manifold loops	1/4" OD SS Tubes for pressure gauge line and 3/8" OD Copper Tubes for vent manifold loops	Agreed
4	1.5, e)	134	An aluminium ring for each cylinder with indentation on cylinder hydro tested month, year is required.	Date of the hydrostatic stretch test shall be permanently stamped on each cylinder as per IS 7285 (Part 2):2017	An aluminium ring is fitted for retested cylinders as per IS 8451	Agreed, if it is as per the PESO

5	1.5 f)	135	<p>A warning in the following terms shall be attached to every cylinder containing Compressed Natural Gas namely:-</p> <p>i) Do not change the color of the cylinder</p> <p>ii) This cylinder should not be filled with any gas other than CNG.</p> <p>iii) No flammable material should be stored in the immediate vicinity of this cylinder or in the same place in which it is kept.</p> <p>iv) No oil or similar lubricant should be used on the valves or other fittings of this cylinder.</p> <p>v) Please look for the next date of test, which is marked on a metal ring inserted between the valve and the neck of the cylinder, and if this date is over, do not accept the cylinder.</p>	<p>A warning in the following terms shall be attached to every cascade containing Compressed Natural Gas namely:</p> <p>WARNING</p> <ul style="list-style-type: none"> • Do not change the colour of this cylinder. • This cylinder shall not be filled with any gas other than CNG. • No flammable material should be stored in the close vicinity of this cylinder or in the same room in which it is kept. • No oil or similar lubricant shall be used on the valves or other fittings of this cylinder. • The next date of test is MM-DDD-YYYY, and if this date is over, do not accept the cylinder for filling. 	<p>Instead of sticker on every cylinder, we propose a warning plate will be bolted on every cascade</p>	<p>Agreed, if it is as per the Standards</p>
6	1.9	137	<p>Safety Relief Devices for cylinder storage</p>	<p>Please include "OR as approved by CCoE, PESO</p>	<p>Parameters of Safety Relief Devices for cylinder storage shall be as per CCoE, PESO approved drawing of cylinder shut-off valve</p>	<p>Agreed</p>

7	1.12, Pt.3	139	Bidder to submit 4-G static test. Calculation of one complete assembled cascade with all the cylinders mounted & filled. Bidder to test one frame for satisfactory performance, strength and stability. Test results and report shall be submitted to GGPL	Bidder will submit calculation sheet only, No Test results and/or reports for 4G	Testing facility is not available for same	Clause remain Unchanged
8	1.12, Pt.7	140	An area of at least 1 feet around the cascade shall be provided within the shed	Canopy size shall be equal to length and width of cascade' no extension of 1 foot. GCR 2016 mentions about shade of one metre around cascade and not for canopy	As per gas cylinders rules "An area of atleast 1 meter around the cascade shall be provided within the shed and the same shall be demarcated either by raised platform or by curb wall"	Clause remain Unchanged
9	1.13, Pt.1	140	The piping /tubing material shall be of Sandvik /FAE make.	The piping /tubing material shall be of Sandvik /FAE / Tubacex make	Proposing to add Tubacex make for SS Tubes	Agreed. However bidder should submit supporting documents for approval from GGPL
10	1.13, Pt.6	141	Liquid filled pressure gauge of diameter 4", (0-400 kg/cm ²) with a 3 —way isolating valve on each bank shall be used.	Liquid filled pressure gauge of diameter 4", (0-400 kg/cm ²) with a 3-way isolating valve or 2-valve manifold block on each bank shall be used.	Proposing to add 2-valve manifold block for pressure gauge mounting, which has advantage of block and bleed operation.The Isolation valve shall be Parker/Swagelok make -way ball valve	agreed

11	1.13, Pt.9	141	All end connections, pressure gauges, valves and fittings of cascade shall be within tamper proof, wire cage enclosure.	All end connections, pressure gauges, valves and fittings of cascade shall be within tamper proof, wire cage enclosure or acrylic sheet header box constructed with structural steel.	Proposing to add acrylic sheet header box constructed with structural steel having advantage of transparency for gauge visibility	Unchanged
12	1.13, Pt.10	141	Material of vent tubing shall be Copper & Brass fitting as per ASTM B75, B68 and make shall be of Sandvik/Parker	Vent fittings material Brass as per ASTM B453/B249 Parker/Swagelok make, and Vent tubing material Copper as per ASTM B75 indigeneous make	Standard refererces and makes corrected for brass fittings used with copper tubing	agreed
13	1.13, Pt.11	141	All piping to be tested after assembly to pressure equal to that of the pressure relief device setting and proved leak free.	Pressure Manifold (SS) to tested after assembly at working pressure, i.e., 255 Kg/cm2, and proved leak free, Vent manifold (Copper/Brass) to tested at 5 bar pressure and proved leak free.	The pressure relief device of cylinder shut-off valve operates at 336/399 kg/cm2 as per IS 3224 as approved by CCoE, PESO	Agreed
14	1.13, Pt.12	141	Vendor shall provide a suitable draining arrangement duly certified/approved by PESO for the purpose or removing moisture and other contaminants that may accumulate within the Piping / Tubing.	No draining arrangement; however, vent arrangement shall be provided.	Gas quality shall confirm to IS 15958 for moisture and other contaminates	Agreed

15	1.14, Para 2	142	The paint shall be chosen, primed and applied as to have a service life of five (5) years. The exterior surface is required to be corrosion free for five (5) years and to have fade free life without oxidation of paint surface for five years in an environment of bright sunlight with an intense UV content.	Warranty &/or guarantee shall be as per clause 1.23 of this tender document. No warranty &/or guarantee of five years for paint.	No warranty &/or guarantee of five years for paint.	Agreed
16	1.14, Para 3	142	Surface preparation by Shot Blasting as per grade SA 2 1/2 Swedish Standard SIS055 909	Surface preparation by Shot Blasting as per grade SA 2 1/2 as per IS 9954 (Indian standard) or ISO 8501-1 (International standards)	Standard reference corrected. Mentioned Swedish standard reference is incorrect	Agreed
17	1.14, Para 3	142	Three coats of paint shall be applied with minimum thickness of 300 micron. (Permissible thickness in each coat shall be within 80 to 120 micron).	Cylinder paint DFT shall be 70µ minimum as per clause 3.8.1 of IS 7285 (Part 2):2017	Frame paint DFT can be maintained minimum 300 µm (100 µm minimum per coat)	Agreed
18	1.15, Pt.2	142	Every Mobile cascades used for the transport of compressed gas shall be a type approved, in writing, by the PESO.	Cylinders used in Mobile cascades for the transport of compressed gas shall be a type approved, in writing, by the PESO.	(1) Type approval is for cylinders only, and not for Cascade. (2) CCoE gives written permission for cylinders only, and not for cascade	Agreed
19	1.15, Pt.3	142	Every cylinder used for transportation of compressed gas shall be constructed and tested in	Every cylinder used for transportation of compressed gas shall be constructed and tested in accordance with IS:	Proposing to add standard IS 7235 (Part 2):2017 for cylinder construction of Mobile cascade	Agreed, It is as per the PESO Standards

			accordance with IS: 2825, as amended from time to time, or BS5045:Part1 or (US) D.O.T 3AA	2825, as amended from time to time, or BS5045:Part1 or (USA D.O.T 3AA or IS 7285 (Part 2):2017		
20	1.18, Pt.3	144	Upon delivery to the site, all the equipment should be assembled in a complete system.	Upon delivery to the site, all the equipment should be assembled in a complete system except 3 metre Vent Pipe. Vent Pipe shall be 3m (1.5+ 1.5) high, one vent pipe of 1.5 m long shall be delivered loose and to be bolted at site by owner.	3-metre-high vent pipe may get damaged during transit	Agreed
21	1.18, Pt.6	145	Bidder shall furnish record of storage capacity check of each cylinder in a cascade and the same need to be demonstrated to Owner or their authorized representative.	Bidder shall furnish record of storage capacity check of each cylinder in a cascade and the reports for same need to be given to Owner or their authorized representative for review	Demonstration of water capacity check is not possible after cascade assembly. BIS representative scientist witnesses the same as per their scheme of inspection and testing. Same reports shall be made available to Owner &/or their authorised representative for review	Agreed
22	1.19, Pt.7	146	Record of storage capacity check of each cylinder in a cascade shall be furnished and same shall be demonstrated to the Owner/ its representative.	Record of storage capacity check of each cylinder in a cascade shall be furnished and the reports for same need to be given to the Owner/ its representative for review	Demonstration of water capacity check is not possible after cascade assembly. BIS representative scientist witnesses the same as per their scheme of inspection and testing. Same reports shall be made available to Owner &/or their authorised representative for review	Agreed

23	1.24.2, Pt.1	149	Detailed quality control procedure/QAP, duly approved by PESO, for manufacture of cylinder, fabrication of frame etc within two weeks of release of order.	Quality control procedure/QAP for cascade shall be submitted to tenderer for approval within two weeks of release of order.	(1) CCoE, PESO do not approve quality control procedure/QAP for Cylinders &/or Cascades (2) Cylinders will be manufactured under BIS inspection and certification as per BIS scheme of testing and inspection. (3) Quality control procedure/QAP for cascade shall be submitted to tenderer for approval	Agreed
24	Section-IV Scope of Supply & SCC	104	point 2 Delivery schedule	Delivery schedule-12 weeks from the receipt of Purchase Order and Approved Drawing whichever is later	Actual Manufacturing process will start, after the receipt of Approved Drawing from Customer only	Delivery schedule clause remains unchanged
25	1.3.1 and 1.3.2	130	Design Pressure and Design temperature	There is no concept of Design Pressure and Design temperature in IS 7285 Part 2. It will be Cylinder Working Pressure 260 kgf/cm ² at 15°C		Agreed
26	1.9	138	Burst disc pop up pressure shall be close to 280 kg/cm ² g.	It should be "SRV pop up pressure shall be close to 280 kg/cm ² g."		Agreed
27	1.13	140	All fittings including valve shall be -----	ASTM A269 is for tubes. Fitting shall be SS 316 as per ASTM A182 (for fittings made from Forgings) / A276.for fittings made from Bar Stock),		Agreed
28	1.13	141	Vendor shall provide a suitable draining arrangement duly approved by PESO for the purpose of removing moisture and -----".	As per cylinder filling permission the cylinder is to be fitted with CCoE approved valve as per IS 3224. So this provision is not possible to make.		Agreed

29	1.14	142	The paint shall be chosen, primed and applied as to have a service life of five years.	Painting is not covered under warranty & / or guarantee for five years. After surface preparation by shot blasting, frame will be applied with Zinc Phosphate primer 2 coat and Epoxy Finish Paint - 2 coat. Coating thickness of each coat 35 µm DFT. Total coating thickness will be minimum 140 µm. Similarly cylinder will be applied one coat of primer paint followed by one coat of finish paint and total coating thickness of cylinder shall be above 70µ. At the time of periodic testing of cylinder, since cylinders are removed from the frame as well as cylinder can be repainted.	Refer Query.No. : 15
30	1.15	142	Every mobile cascade used for the transport of compressed gas shall be type approved by PESO.	PESO approves cylinder only.	As per the Standards/requirement of regulatory bodies