



SUPPLY OF LPG TESTING AND AUXILIARY EQUIPMENT'S FOR LABORATORY WITH TECHNICAL SPECIFICATION

2	Issued for bidding	24-04-2024	UZ	MZ	MAR	
1	Issued for Review and Comments	19-08-21	DK	MAR	MNS	
REV.	DESCRIPTION	DATE	PREP'D	CHK'D	REV'D	APP'D



SUPPLY OF LPG TESTING/AUXILIARY EQUIPMENT'S FOR LABORATORY WITH TECHNICAL SPECIFICATION

CONTENTS

1.	INTRODUCTION	3
2.	VALIDATION OF THE LPG LABORATORY BUILDING DESIGN & UTILITIES...	9
3.	HSE CRITERIA	ERROR! BOOKMARK NOT DEFINED.
4.	COORDINATION PROCEDURE	ERROR! BOOKMARK NOT DEFINED.
5.	SCHEDULE	10
6.	REPORTING.....	10

ATTACHMENTS/ANNEXURES/APPENDIX:

1	Attachment I (Testing Laboratory Layout)
2	Attachment II (Technical Specification for LPG Testing Equipment's)
3	Attachment III (Project Being Executed-Executed in last five years)
4	Attachment IV (PM & QC)
5	Attachment V (Technical Support Services)
6	Attachment VI (Deviations)
1	Annexure-A 061-001-159-RFQ-001 (RFQ for LPG Sampling cylinders)
2	Annexure-B 061-001-159-RFQ-002 (RFQ for Fume Hoods)
3	Annexure-C 061-001-159-RFQ-003 (RFQ for Diesel Generators)
4	Annexure-D 061-001-159-RFQ-004 (RFQ for Instrument Air Compressor)
5	Annexure-E 061-001-159-RFQ-005 (RFQ for Nitrogen Generator)
6	Annexure-F 061-001-159-RFQ-006 (RFQ for Steam Generator)
7	Annexure-G 061-001-159-RFQ-007 (RFQ for Glassware)
8	Annexure-H 061-001-159-RFQ-008 (RFQ for Sampling Cylinders (Bomb) Cleaning Oven)
9	Annexure-I 061-001-159-RFQ-009 (RFQ for Satellite Connection)
10	Annexure-J 061-001-159-RFQ-010 (RFQ for R.O-Demin Water Plant)
11	Annexure-K 061-001-159-RFQ-011 (RFQ for AC & Water Dispenser)
12	Annexure-L 061-001-159-RFQ-012 (RFQ for Utility Gases Cylinders)
A.	Appendix A (Bid Price Schedule for LPG Testing Equipment's/Auxiliary's)



SUPPLY OF LPG TESTING/AUXILIARY EQUIPMENT'S FOR LABORATORY WITH TECHNICAL SPECIFICATION

1.0 INTRODUCTION

The Government of Balochistan (GoB), through the Balochistan Energy Company Limited (BECL), intends to engage a private party on Public Private Partnership (PPP) mode **to establish, operate and maintain LPG Testing Lab at Taftan, Balochistan under Public Private Partnership Mode via design, build, finance, operate and maintenance (DBFOM) modality.** LPG is being imported from Iran on daily basis and the **GoB/BECL**, intends to establish a Testing Laboratory to ensure the quality of the imported LPG is meeting the minimum quality requirements as per OGRA Rules.

Initially LPG Testing/Auxiliary Equipment/Apparatus including all Accessories are required to perform an average of **100 plus tests/day plus** (during general shift of 08 working hours).

Now, **GoB/BECL**, requires Supply of LPG Testing/Auxiliary Equipment/Apparatus including all Accessories with Two Years Warranty, Commissioning Spares, Two Years Spare Parts, Transportation to Site, Installation, Commissioning, Trial Run & One (01) Month Training of the Newly hired Staff for the Laboratory at Taftan Site. As this is a fast-track project and to achieve the target in **six (06) months** (from the date of issuance of work order) and the project is divided in to following phases:

For implementation of the project, BECL intends to engage a competent and experienced **“Company”/Laboratory Equipment Supply Contractor** with track record to execute the “Supply, Installation, Trial Run & Training Project”.

I	Supply of LPG Testing/Auxiliary Equipment/Apparatus/Accessories for 100 plus tests/day at Taftan Border Site (Pak-Iran Border)
II	Installation, Commissioning & Trial Run
III	One Month Training (at site)

1.1. BECL Representative

BECL will appoint a Representative as contact person for communications with bidder.

1.2. GoB/BECL's Responsibilities

GoB/BECL will be responsible for providing the Contractor the following:

- Providing facilitation letters only for clearances, permits and approvals which Contractor may require for the execution of the Project, but it is the sole responsibility of the contractor to obtain timely clearances, permits and approvals letters from **GoB/BECL** and any delay in this regard shall be on contractor's account. Additionally, the Contractor shall timely submit the list of letters required for clearances, permits/approvals.



SUPPLY OF LPG TESTING/AUXILIARY EQUIPMENT'S FOR LABORATORY WITH TECHNICAL SPECIFICATION

- b) Ensure timely review and approvals of documents submitted by Laboratory Equipment Supply Contractor to execute the “Supply, Installation, Trial Run & Training Project”).
- c) Provide on time space (at Taftan site) for installation of Equipment/Apparatus and required Accessories.

1.3. Project Completion Period

The timely completion of the Project by the Contractor shall be the essence of the Contract, as **GoB/BECL** has to meet its obligations for completion of the Project. Accordingly, the Contractor (Successful Bidder) is required to complete the Supply Contractor to execute the “Supply, Installation, Trial Run & Training Project” within **Six (06) calendar months** (all three phases) from date of establishment of supply contract / Purchase Order.

1.4. Eligibility Requirements

Bidders must meet the following eligibility requirements:

- a) The equipment/Apparatus and Accessories to be supplied under the Contract must be brand new (Certificate to be provided by supplier), suitable for closed environment (inside laboratory building) installation and produced in and supplied from the countries maintaining bilateral trade relation with the Islamic Republic of Pakistan.
- b) Quotation for complete supply (as per this documents) of Testing Equipment/Apparatus including all Accessories is required. Part supply of Testing Equipment/Apparatus and Accessories will not be acceptable.
- c) Quoted prices must be as per **Appendix-A**
- d) Must submit validation as per **para 5.0** of this document.
- e) Applicant must adhere to technical specification / this document.
 - (i) Reference list of respective clients/ owners (Company Name, Persons Name, official email address, phone & cell #'s) shall be attached to whom GC's, Total Sulfur Content and other testing Equipment are supplied in last five (05) years.
 - (ii) Suitability of equipment to **GoB/BECL's** requirements.
 - (iii) Suitable for closed environment (inside laboratory building only).
 - (iv) Reliability and efficiency of the equipment offered.
 - (v) Availability of Technical Staff, spare parts and after sale service facilities.
 - (vi) Bidders may also make any additional enquiries or investigations necessary to become fully informed of all conditions which may affect the effective and successful execution and operation of the Project.



SUPPLY OF LPG TESTING/AUXILIARY EQUIPMENT'S FOR LABORATORY WITH TECHNICAL SPECIFICATION

1.5. Assurance

- a) The successful Bidder will be required to give satisfactory assurance of its ability and intention to “Supply, Installation, Trial Run & Training Project”. Project pursuant to the Contract, within the time set forth therein.
- b) The Bidder shall, whether included in this Document or not, provide the all-Testing Equipment/Apparatus including all Accessories required to complete the Project.
- c) Bidder may propose (separately) any additionally equipment required for successful operation & maintenance of the LPG Testing Facility.

1.6. Acknowledge of Technical Specifications & other requirements

- a) The Bidder shall acknowledge that Technical Specifications provided by **GoB/BECL** has been thoroughly reviewed at the bidding stage and the cost of removing any error, omission and/or discrepancy to make it fit and sufficient for the purpose for which it is intended has been included in the Contract Price for the Testing Equipment/Apparatus including all Accessories accordingly.
- b) A statement of total compliance with the technical and commercial requirement of this Document on company letterhead.
- c) A statement on the validation of this Document. The statement shall confirm that Technical Specifications and other data/information provided to the bidder have been thoroughly checked and the bidder is satisfied with its suitability and sufficiency in order to perform his obligations under the proposed Contract. Any discrepancy and/or anomaly in the Technical Specifications and data/information have been identified and the cost of removing such discrepancies and anomalies is now at the risk of the Contractor.
- d) A list and details as per **(Attachment – III)** of Equipment/Apparatus and All Accessories supplied to different hydrocarbon testing laboratories in Pakistan or projects being executed/executed by bidder during the last **five (05) years** shall be provided.
- e) Please provide details of technical support services as per format given in **(Attachment – IV)**.
- f) Please provide details of your Project Management & Quality Control capabilities as per format given in **(Attachment – V)**.
- g) Any technical Deviations/exceptions (if any) shall be provided as per format given in **(Annexure – VII)**.



SUPPLY OF LPG TESTING/AUXILIARY EQUIPMENT'S FOR LABORATORY WITH TECHNICAL SPECIFICATION

1.7. Technical Details

The technical proposal shall contain following information/details and documents as a minimum:

- Bidder's project execution plan and human resource deployment plan for all stages of the "Supply, Installation, Trial Run & Training Project"
- A statement of total compliance with the technical and commercial requirement of this Document on company letterhead.
- An undertaking that all equipment and material to be supplied by the Contractor shall be "Brand New" & are suitable for closed environment (inside laboratory building) installation.
- List of start-up & commissioning spares (**without prices in technical & with prices in commercial bid**).
- List of OEM recommended spare parts (on OEM letterhead) for two (2) years continuous operation of Equipment to be supplied, (**Without prices in technical & with prices in commercial bid**).
- All the equipment shall be latest & respective spare parts shall be continued at least for next Twenty (20) years. In this regard OEM Certificate of each equipment will be submitted with the technical bid.
- Other technical or other information/details, which in Bidder's opinion is necessary for a better assessment of his Bid proposal.

2.0 PHASES

2.1. Phase-I – Supply & Installation of Equipment/Items.

Supply & Installation of following Equipment/Items (minimum) is under Contractor's scope as per Technical Specifications for LPG Equipment's (**Attachment-II**):

S. No.	Equipment	As per ASTM Method
(i)	Gas Chromatograph	ASTM D-2163
(ii)	Vapour Pressure	ASTM D-1267
(iii)	Volatile Residue	ASTM D-1837
(iv)	Residual Matter	ASTM D-2158
(v)	Corrosion, Copper strip	ASTM D-1838
(vi)	Total volatile Sulphur	ASTM D-6667
(vii)	Moisture Content	ASTM D-2713

Above mentioned equipment's are minimum, Supply & Installation Contractor may use additional equipment's for complete testing as per requirements of OGRA Rules.



SUPPLY OF LPG TESTING/AUXILIARY EQUIPMENT'S FOR LABORATORY WITH TECHNICAL SPECIFICATION

2.2. Phase-II – Installation, Commissioning & Trial Run

- a) Obtaining necessary insurances/permits/approvals from the relevant authorities for the transportation and other items/works.
- b) The Supply & Installation Contractor shall visit (on his own expense) the site and review all matter related to area prior to submission of his bid to familiarize with the location.
- c) The scope of work of this contract consists of Installation, Commissioning, Trial Run (including performance testing's) at Taftan Site.
- d) Provision of all skilled/unskilled workers, tools, tackles, consumables, testing equipment/gases etc. required for the successful commissioning of the project will be responsibility of the Supply & Installation Contractor.
- e) The Work shall be performed to the current industrial standards, practices, methods procedures and project specifications which shall meet all Contract requirements and recognized international industry quality levels, such that the facilities are safe, operable, and reliable.
- f) All aspects of the Work such as, but not limited to supply, transportation, installation of equipment with accessories, quality assurance, safety etc. shall be the responsibility of Supply & Installation Contractor.
- g) Development of detailed Standard Operating Procedures (SOP's) for each Testing Methods during trial run.
- h) Any other works required for successful completion & commissioning of the project.

2.3. Phase-III – One (01) Month Training

- a) As soon as Supply & Installation Contractor receives the go-ahead for the project, contractor shall submit a detailed plan for one-month comprehensive training from sampling procedures to testing and tabulation of the results.
- b) After Commissioning & Trial Run (minimum one week), one (01) Month Training of The Newly hired Staff for the Laboratory at Taftan Site is mandatory.
- c) Submit detailed record/report of the training.

3.0 PERFORMANCE GUARANTEES

- a) The Contractor shall guarantee satisfactory performance of the new LPG Testing Equipment so that the new LPG Testing Equipment meets the performance requirements laid-down in



SUPPLY OF LPG TESTING/AUXILIARY EQUIPMENT'S FOR LABORATORY WITH TECHNICAL SPECIFICATION

- the respective Technical Specifications and this document. The Contractor shall also provide and prove during commissioning the performance parameters of all major equipment.
- b) If the new LPG Testing Equipment do not achieve satisfactory performance or otherwise adhere to the requirements outlined in the Contract, the Contractor shall promptly analyze the cause of failure. The Contractor shall take all necessary corrective measures in a prompt manner to ensure such that the new LPG Testing Equipment gives satisfactory performance.
 - c) If the new LPG Testing Equipment still fail to give satisfactory performance or otherwise adhere to the requirements outlined in the Contract, in a subsequent Performance Test the date of which will be mutually agreed then Contractor shall determine the cause of this failure and advice changes/modifications or addition. **GoB/BECL** can also independently determine the cause of such failure. The Contractor shall be liable to estimated loss of business to **GoB/BECL** due to delay in project completion and also bear all expenses of the purchase, delivery and installation of such equipment's. The liability of such additions, modifications shall be un-limited.
 - d) If after all such additions/modifications the new Testing Equipment still fail to meet performance in a final test to be demonstrated within one (01) month of the agreement to changes to be made to the Testing Equipment, the Contractor shall pay to **GoB/BECL** as liquidated damages an amount equal to ten percent (10%) of the Contract Value.

4.0 WARRANTIES

- a) The Contractor warrants that the equipment and material supplied under the Contract shall be new & latest (while respective spare parts shall be continued at least for next Twenty (20) years), having good title and fit for the use intended. The Contractor further warrants that:
- b) Equipment & materials supplied against the Contract conforms in all respects with the specifications and requirements contained in contract document.
- c) Equipment supplied under this Contract shall be of good quality and free from all defects arising from design, materials or workmanship.
- d) The Contractor shall also obtain and provide to **GoB/BECL/SPV** Company original manufacturer's warranty of the equipment supplied by it from vendors and manufacturers.
- e) The Contractor warrants that the supplies/installation shall be of good quality, free from faults or defects and shall perform so as to comply with the specifications contained in the contract documents or with any revisions thereof pursuant to any changes. The Contractor



SUPPLY OF LPG TESTING/AUXILIARY EQUIPMENT'S FOR LABORATORY WITH TECHNICAL SPECIFICATION

further warrants that all work performed under the Contract shall be in accordance with industry's recognized codes and standards.

- f) The supply contractor shall also give warranty for a period of Twelve (12) months for supplied Testing Equipment/Apparatus including all Accessories and spare parts and services for a period of 12 months from the date of Taking over Certificate by SPV Company.
- g) If the supplied equipment/installation fail to meet the warranty conditions set forth in **para 3.0 & 4.0**, **GoB/BECL/SPV** will promptly notify the Contractor in writing about the defects and claims under the warranty. Upon receipt of such notice the Contractor shall within the time specified by **GoB/BECL/SPV** repair/replace the defective equipment (s) with no cost or expense to **GoB/BECL/SPV**. The repaired or replaced equipment(s) shall be warranted by Contractor for Twelve (12) months from the date of repair(s) or replacement(s).
- h) If the Contractor having been notified, fails to remedy the defect(s) within the specified time, **GoB/BECL/SPV** shall proceed to take remedial actions as may be necessary, at the Contractor's risk and cost. **All costs thereof shall be charged to the Contractor or recovered from retention money/performance bond**. The Contractor shall have no objection to the above and he hereby acknowledges the rights of **GoB/BECL/SPV** to recover such sums as a debt due to **GoB/BECL/SPV** from defaulting Contractor. It is understood that in this case the Contractor shall not be relieved from the provided warranties and contractual obligations.

5.0 VALIDATION OF THE LPG LABORATORY BUILDING DESIGN & REQUIRED UTILITIES.

An Initial layout of LPG Testing Laboratory with dimensions are attached as **Attachment-I**, bidder must revalidate (with technical bid) the following:

- a) Dimension (space) provided for each testing equipment.
- b) Minimum electrical supply required for each equipment with type of connections like socket type or breaker type and amp.
- c) Utility Gases required for each equipment with required flow, pressure & purity shall be clearly mentioned in the technical bid.
- d) Any other missing requirements for successful commissioning of each testing equipment and their operational performance.



SUPPLY OF LPG TESTING/AUXILIARY EQUIPMENT'S FOR LABORATORY WITH TECHNICAL SPECIFICATION

6.0 SCHEDULE

The work shall be completed within a period of **six (06) Calendar Months** from the date of issuance of notification of award without any exception. Supply & Installation Contractor shall submit the detailed working schedule and clearly mention all the activities in the project schedule including list of drawings, documents, etc.

7.0 REPORTING

The Supply & Installation Contractor shall, for the duration of the Contract, provide accurate and timely Weekly and Monthly report covering all activities.