Scope of Work
For
EPA Protocol Gases, Specialty Gas, and Gas Cylinder Management

1.0 General

Vendor to provide all Gases and a gas cylinder management program to support all Environmental Protection Agency (EPA) Air Program and specialty gas requirements for Austin Energy (AE). Supported systems will be Continuous Emission Monitoring Systems (CEMS), Chromatographs, and gas analyzer systems located at our two power plants or at any other AE authorized location.

The locations for service of this contract currently include but may not be limited to:

Decker Power Plant
8003 Decker Lane
Austin, Texas 78724

Sand Hill Energy Center
1101 Falwell Lane
Del Valle, Texas 78617

2.0 Scope of Services

Contract shall include the purchase, stocking, and management of products based on the Scope of Work detailed herein.

2.1 EPA Protocol Gases

2.1.1 Regulations: All EPA Protocol Gases supplied to AE shall be manufactured in accordance with all current and future procedures and requirements set forth in EPA Air Program Regulations. Only Standard Reference Materials (SRM's) from National Institute of Standards and Technology (NIST) for direct traceability and improved accuracy shall be used to produce gas mixtures for Continuous Emission Monitoring Program (CEMS). All EPA Protocols shall be manufactured using Procedure G-1 and analyzed utilizing Fourier Transform Infrared Spectrometry (FTIR) Analysis. Interference effects in multi-component protocols shall be eliminated. Accuracy of EPA RATA gases shall be correct to +/- 2%. Accuracy of all other gases shall be correct to +/- 2%. Gas blend tolerance shall not deviate more than +/- 5%. Cylinders shall be treated with a chemical vapor deposition process to eliminate gas-to-cylinder surface interactions.

2.1.2 The cylinder Vendor shall be registered in EPA's Protocol Gas Verification Program (PGVP)

2.1.3 Certificate of Analysis:

2.1.3.1 Each EPA Protocol Gas Cylinder shall be supplied with a weatherproof Certificate of Analysis adhered to the outside of each cylinder. Cylinder size shall be "AL" unless specified otherwise.

2.1.3.2 EPA RATA Cylinder Shipments will be supplied with two copies of the Certificate of Analysis for each cylinder.

2.1.3.3 An Original EPA RATA Gas Cylinder Certificate of Analysis shall be mailed to AE for each cylinder.

2.1.4 Bar Coding: Each EPA RATA Gas Cylinder shall include a bar coding system for individual cylinder tracking. Each cylinder shall be bar coded with an individual tracking number and accessible through an on-line cylinder tracking and management program. The Vendor shall provide an easily accessible web-based inventory tracking system that can be accessed by AE.

2.1.5 All cylinders are to be equipped with Residual Vapor Pressure Valves (RPV)

2.1.6 All cylinders are to be equipped by the appropriate valves required by the USEPA and the Compressed Gas Association (CGA)

2.1.7 All aluminum cylinders are to be only fitted with stainless steel valves

2.1.8 Shipping Requirements:

2.1.8.1 Full EPA RATA cylinders gases used as Daily Calibration Gases by AE shall be shipped from Vendor's stock within five working days of release. Vendor shall always maintain a minimum stock of eight cylinders each (blend composition) of daily calibration bottles (Reference: Table 1: Current Gas Cylinders In Use. labeled "D") at the Vendor's shipping location.

2.1.8.2 Full EPA RATA cylinder gases used as Quarterly Linearity Calibration Gases by AE shall be shipped from Vendor's stock within 15 working days of release. Vendor shall always maintain a minimum stock of one cylinder each (blend composition) of quarterly linearity calibration bottles

(Reference: Table 1: Current Gas Cylinders In Use. labeled "L") at the vendor's shipping location.

2.1.8.3 All cylinders will be bar coded and logged in and out the same day.

2.1.8.4 All cylinder movements shall be updated in Vendor's on-line web based cylinder management program the same day and made accessible to AE.

2.1.8.5 All cylinders supplied to AE shall be free of dents and other imperfections that may compromise the safety of the cylinders.

2.1.8.6 All cylinders will carry a PGVP identifier

2.1.8.7 The exact concentrations of gases in these cylinders are shown in Attachment A. However, these concentration requirements may change over time and the vendor will be given 30 days advance notice prior to changing concentrations.

3.0 Chromatograph Gases

3.1 Gas mixtures to be certified using mole %.

3.2 DOT Specification 4BW240 or Buyer approved equal.

3.3 DOT Specification 3AA3365 or Buyer approved equal.

3.4 Each cylinder shall be bar coded. A weatherproof Certificate of Analysis shall also be attached to each cylinder.

3.5 Accurate composition values in mole weight and liquid volume percentages shall be supplied for each cylinder.

3.6 Analytical parameter (analytical accuracy of +/- 0.02% absolute, whichever is smaller, depending on the concentration of the component). Actual and analytical data results required for certificate of analysis shall be supplied for each cylinder.

3.7 Gas blend tolerance of +/-2%.

3.8 Copy of the chromatogram shall be supplied for each cylinder.

3.9 Calculated BTU (British Thermal Unit) values, both wet and dry, at various pressures shall be supplied for each cylinder.

3.10 Calculated relative density, both real and ideal shall be supplied for each cylinder.

3.11 Compressibility factor, average molecular weight and response linearity plot shall be supplied for each cylinder.

4.0 Analyzer Gases

4.1 Gas mixtures shall be certified using mole %, +/-2%.

4.2 Gas blend tolerance of +/-5%.

4.3 Actual analytical data results required for certificates of analysis.

4.4 Cylinders volume shall be 240 cubic feet, size a.

4.5 DOT Specification 3AA2265 or Buyer Approved Equal.

4.6 Each cylinder shall be bar. A weatherproof Certificate of Analysis shall also be attached to each cylinder.

5.0 Internet-Based Management Services

Vendor shall provide an internet-based management system or mobile solution, which includes as a minimum, the following features:

5.1 On-line purchasing, ordering status, and scheduled shipping dates.

5.2 Automatic cylinder expiration reporting and electronic notification to individual users and support personnel.

5.3 On-line Certificate of Analysis with electronic downloading and printing functions.

5.4 On-line Safety Data Sheets (SDS) with electronic downloading and printing functions.

5.5 On-Line Inventory Control to include as a minimum:

5.5.1 Bar coded cylinder records and reports on cylinder locations, shipments and returns.

5.5.2 Indicate locations where cylinder use charges are spent.

5.5.3 Assist in effective control of product quantities on hand at AE locations.

5.5.4 Indicate products and product quantities available at Vendor location(s) available for immediate shipment.

5.5.5 Vendor shall identify product shelf life and report on expiring products by cylinder and location at AE. Flag expiring dates of cylinders well before the expiry date. Notification of the expiration dates shall be sent via email to ravi.joseph@austinenergy.com.

5.5.6 Include AE user-definable data fields to track cylinder pressures and AE locations.

5.5.7 Identify idle cylinders that could be returned to Vendor or used by AE at another location. Provide number of days on-site for all cylinders.

5.5.8 Empty cylinders shall be returned upon delivery of replacement specialty gases to the plants, or the Vendor shall be called to pick up empty cylinders.

5.6 Automatic reordering of contract products.

5.7 Trend/consumption analysis and reporting.

5.8 On-line cylinder pressure and usage information

5.9 On-line security access (password protected).

5.10 Disseminate updated safety and bottle/valve design information and also send e-mails to the affected parties of these changes

6.0 Product Quality Assurance and Quality Control (QAQC) Program

Vendor shall have a Product Quality Assurance and Quality Control (QAQC) Program in place at all times to ensure product quality is per EPA and AE specifications. All Vendor Manufacturing locations and Laboratories providing EPA Protocol Gases to AE shall be ISO 9002 Certified.

7.0 Invoicing

Vendor shall provide the following details on all invoices:

- Unique Invoice Number
- Item Number
- Item Description (type of bottle and contents)
- Delivery date
- Serial Number of bottle
- Price
- Quantity of each type of bottle delivered

- For daily rent, invoice shall also provide information on beginning and ending balance, returns, number of billable days and applicable daily rent

Vendor shall submit invoices directly to the plant environmental coordinators for payment.

8.0 Audit of Cylinders

Vendor shall conduct a quarterly audit of gas cylinders at both facilities. The Vendor shall coordinate the scheduling of the audit with appropriate plant personnel. An AE employee from the plant may, at their discretion, accompany the Vendor during the audit. After the conclusion of the audit, the Vendor shall update their inventory to reflect the findings from the audit.

9.0 General

9.1 Vendor shall ensure that all employees, agents and subcontractors (including employees and agents of subcontractors) are equipped with appropriate footwear (safety toe, rubber boots, etc.) with a defined heel, appropriate eyewear (i.e., safety glasses with side shields, goggles, hoods, etc.), hard hats, respiratory protection, safety belts and harnesses, and such other health and safety related apparel as may be specified and/or required by statute, regulation, rule, ordinance, or jobsite conditions. Such equipment shall be furnished by Vendor at Vendor's expense.

9.2 Vendor shall insure that any product sold to Austin Energy which contains or was manufactured using Chlorofluorocarbons (CFC's) be clearly labeled in accordance with Federal Environmental Regulations.

9.3 As soon as an order for cylinder(s) is placed with the Vendor, the Vendor shall confirm the order (using e-mail, text, software, etc.) detailing the number of cylinders, types, name of the ordering facility, name of the City employee placing the order and shipment date and shipping carrier. It is Vendor's responsibility to keep AE informed about any changes to the shipping date and shipping carrier.

9.4 Vendor shall furnish, erect, and maintain warning notices, signs, signals, lights, protective guards, enclosures, platforms and other devices as necessary to adequately protect all personnel on site; including but not limited to employees, subcontractors, other contractors, AE workers, and the public.

9.5 Vendor shall recertify calibration gases if the pressure is greater than 1000 psi. The cost shall be half the supplied cost (listed in the Bid Sheet) for the particular cylinder

9.6 Vendor shall provide pricing information on the bid sheet (Section 0600-Calibration Gases Pricing). Table 1 is the current list of as cylinders in use at Decker and Sand

Hill. The City of Austin reserves the right to change the blend concentrations in Table 1 after giving advance notice in writing to the Vendor of four weeks. The change (if required) in blend concentrations in Table 1 will still be within the range of blend concentrations listed on the bid sheet.

9.7 The Total number of calibration gases listed in Table 1 is just an estimate. Actual usage quantities of cylinders may very different from the estimate.

9.8 Vendor should provide copy of current PGVP certification as part of this solicitation. Vendor shall immediately inform Austin Energy if they fail PGVP certification.