ATTACHMENT J2

Vance AFB Natural Gas Distribution System

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J2.1 Vance AFB Overview

Vance AFB, located three miles south-southwest of Enid in Garfield County, Oklahoma, is an Air Education and Training Command (AETC) installation that conducts joint specialized undergraduate pilot training (JSUPT). The Installation is essentially a single-mission base with the primary organization, the 71st Flying Training Wing (71st FTW), graduating about 250 pilots from its pilot training program each year. T-37, T-38, and T-1 aircraft are assigned to the 71st FTW.

Vance AFB occupies 2,000 acres. Recent land acquisitions include 130 acres on the north side of installation given to the Installation by the City of Enid in 1999 and another 10 acres given by the City of Enid in 2001. Vance AFB has a total population of approximately 3,500, including military personnel, civilian employees and support personnel, students, and dependents. Facility space totals approximately 1.94 million square feet (msf) (Industrial: 1.19 msf; Administrative: 0.20 msf; Military Family Housing (MFH): 0.38 msf; Unaccompanied Housing: 0.16 msf; Transient Quarters: .01 msf). The annual payroll at Vance AFB is approximately $65 million (combined military, civilian, and retirees), and the Base is vital to the local economy through civilian employment, contracting, and purchases from local businesses.

There are no known factors that would effect any significant changes in total Vance building space and the consequent impact on Vance utility requirements.

Kegelman Auxiliary Airfield is a small training airfield, about 45 miles northwest of Vance AFB and west of Oklahoma Highway 38, that covers 1,076 acres with only nine buildings totaling approximately 8,135 square feet of industrial/administrative space.

J2.2 Natural Gas Distribution System Description

J2.2.1 Natural Gas Distribution System Fixed Equipment Inventory

The Vance AFB natural gas distribution system consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Installation and Government ownership currently starts to the point of demarcation, defined by the Right of Way. The system may include, but is not limited to, pipelines, valves, regulators, meters, and cathodic protection. The actual inventory of items sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any service charge adjustments based on the accuracy of the following description and inventory.

Specifically excluded components from the natural gas distribution system privatization are:

- Compressed Natural Gas Vehicle Fueling Station.
- Kegelman Auxiliary Airfield fire station propane system.
- Natural gas system within the Military Family Housing area.

J2.2.1.1 Description

Oklahoma Natural Gas (ONG) supplies natural gas to Vance AFB through a single regulator and master meter station located on the north side of the Base near Hairston Gate. The supply pipe is a four-inch high-pressure (200 pounds per square inch gauge (psig)) line owned and operated by ONG. At the ONG regulator station the gas is odorized and reduced to normal Base distribution pressure of 16 psig. The natural gas is supplied to the Base on an interruptible rate; however, the Base has never experienced a gas supply outage.

In addition to space and water heating requirements on Base, the natural gas system also serves a compressed natural gas vehicle filling station that supplies fuel to 34 natural gas-fueled government vehicles. The compressed natural gas vehicle filling station will remain the property of the Government and is excluded from privatization consideration.

Eighty-seven (87) percent of the Base facilities (326 of 375) are connected to the natural gas distribution system. The system consists of approximately 60,000 lineal feet of gas lines. About 75 percent of the system is installed in the main cantonment area and the remaining 25 percent in the family housing area. The gas lines in each area are in a looped configuration, which can be interconnected. This enables the isolation of line segments for repairs with minimal interruption of gas service to customers. The gas mains vary between eight inches to 4 inches. Building services range in size from 1-inch for some residences to 3 inches for large industrial buildings. Average burial depth is 4 feet for mains with building services average depth at 2 feet 6 inches. The original gas lines are coated and wrapped steel pipe with cathodic protection provided by impressed current. As deteriorated sections of pipe are replaced, polyethylene pipe is used. Approximately 14 percent of the steel pipe on the main Base has been replaced in recent years with polyethylene pipe. Where polyethylene pipe has been installed, a loop wire has been installed to maintain cathodic protection for the steel pipe.

At Kegelman Auxiliary Airfield, about 30 miles northwest of Vance AFB, the fire station is served by a small propane gas system. This small, isolated system is excluded from the privatization package. There are no natural gas components at Kegelman.

There is currently one unfunded operation and maintenance (O&M) project programmed to replace 73 gas valves (2-inch – 8-inch) throughout the Installation. Details on this project will be available in the technical library. (See Paragraph J2.11.)

J2.2.1.2 Inventory

Table 1 lists the major natural gas distribution components included in the privatization package. Drawings used to develop the inventory were the Vance Comprehensive Plan Tab G-5, Sheet 1 (1958) and Cathodic Protection Plan Tab G-8, Sheet 1 (1998). A list of the

existing utility meters and isolation valves for the natural gas system was provided by the Installation and was also used in the development of the inventory components.

TABLE 1
Fixed Inventory
Natural Gas Distribution System - Vance AFB

Component	Size	Unit	Quantity	Construction Date
Pipe				
Black/C&W Steel	1½″	LF	4,510	1942
Black/C&W Steel	2″	LF	7,500	1942
Black/C&W Steel	2½″	LF	4,500	1942
Black/C&W Steel	2½″	LF	8,160	1960
Black/C&W Steel	3″	LF	740	1942
Black/C&W Steel	4″	LF	8,980	1942
Black/C&W Steel	4″	LF	140	1960
Black/C&W Steel	6″	LF	5,430	1942
Black/C&W Steel	8″	LF	770	1942
PE	1¼″	LF	1,120	1994
PE	2″	LF	3,160	1994
PE	3″	LF	190	1994
PE	4″	LF	2,290	1994
PE	6″	LF	1,350	1994
PE	8″	LF	190	1994
Regulators				
Pressure	1½″	EA	230	1960
Pressure	4″	EA	100	1942
Valves				
Isolation Valve, BS	1″	EA	1	1942
Isolation Valve, BS	1¼″	EA	1	1942
Isolation Valve, BS	1½″	EA	4	1942
Isolation Valve, BS	1¾ “	EA	8	1942
Isolation Valve, BS	2″	EA	9	1942
Isolation Valve, BS	4″	EA	28	1942
Isolation Valve, BS	6″	EA	16	1942
Isolation Valve, BS	8″	EA	3	1942
Isolation Valve, PE	1″	EA	1	1994
Isolation Valve, PE	1½″	EA	6	1994
Isolation Valve, PE	1¾ “	EA	2	1994
Isolation Valve, PE	2″	EA	5	1994
Isolation Valve, PE	4″	EA	4	1994
Isolation Valve, PE	6″	EA	8	1994
Isolation Valve, PE	8″	EA	2	1994
Service Valve, Ind, Plug	2½″	EA	200	1942

Component	Size	Unit	Quantity	Construction Date
Meters				
800 CF/Hr	#20	EA	49	1942
Cathodic Protection				
Anodes, Graphite	32#	EA	169	1998
Rectifier, air cooled	28V/10A	EA	19	1998
Conductor, Copper	#8/600V	LF	6,600	1998
Test Station		EA	3	1998
Anode, Backfill	100 LB	LB	11,340	1998

Notes:

C&W = coated and wrapped
BS = black steel
LF = linear feet
LB = pound
Hr. = hour
PE = polyethylene
Ind. = industrial
EA = each
CF = cubic feet
V = volt

J2.2.2 Natural Gas Distribution System Non-Fixed Equipment and Specialized Tools

Tables 2 and **3** would typically list other ancillary equipment (spare parts) and specialized vehicles and tools included in the purchase. However, Vance is a very small installation with a small, contracted O&M operation. The Installation does not maintain significant levels of spares (they are actually prohibited from maintaining such levels), nor is there specialized equipment that could be made available for privatization. Hence, **Tables 2** and **3** reflect no items available for privatization.

TABLE 2
Spare Parts
Natural Gas Distribution System - Vance AFB

Quantity	Item	Make/Model	Description	Remarks
None				

TABLE 3
Specialized Vehicles and Tools
Natural Gas Distribution System - Vance AFB

Description	Quantity	Location	Maker
None			

J2.2.3 Natural Gas Distribution System Manuals, Drawings, and Records

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4
Manuals, Drawings, and Records
Natural Gas Distribution System - Vance AFB

Quantity	Item	Description	Remarks
1	Drawing	Comprehensive Plan, Tab G-5, 1958	Sheet 1 of 1
1	Drawing	Cathodic Protection System, 1998	Sheet 1 of 1
1	Listing	Isolation Valves	
1	Listing	Gas Meters	Shows Bldg served and Bldg SF

J2.3 Specific Service Requirements

The service requirements for the Vance AFB natural gas distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. There are no special/more restrictive service requirements than those listed in Section C.

J2.4 Current Service Arrangement

- Provider Name: Oklahoma Natural Gas (ONG)
- Annual Usage Fluctuations have been relatively insignificant – average annual consumption is approximately 90,000 KCF with the peak annual usage at 91,000 KCF. Annual and monthly fluctuations are driven primarily by the severity of winter temperatures that directly influence facility heating gas consumption. January is usually the peak month with total consumption averaging between 18,000 and 19,000 KCF. At the low end, July consumption is usually around 1,400 KCF.
- There do not appear to be any contentious CCN issues. ONG's service territory, assigned by the Oklahoma Corporation Commission (OCC) includes the area surrounding Vance AFB.

J2.5 Secondary Metering

J2.5.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. Meters are all low-pressure meters, working off the system distribution at 16 psig. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3.3 and J2.6 below.

TABLE 5
Existing Secondary Meters
Natural Gas Distribution System - Vance AFB

Bldg No.	Facility Function	Square Feet
128	Shop A/C Gen Purp	43,600
130	Shop Non-Destr Insp	6,008
140	Fire station	15,402
141	Hangar Maint	59,633
155	Base Ops	9,925
170	Hangar Maint	25,141
171	Life Support	6,004
174	Combs Whse	17,760
179	Flt Tng UPT	22,396
183	Flt Tng UPT	24,831
187	Shop A/C Maint	31,760
192	A/C Corrosion Cntrl	5,953
193	Wst Trt Bldg	1,681
195	Hangar Maint	36,650
243	Whse Sup & Equip	20,286
244	Whse Sup & Equip	30,571
248	CE Admin	10,675
258	Grndwater Trtmt	4,800
288	BCE Complex	54,500
293	Veh Maint Complex	33,304
314	Library	11,899
316	Gymnasium	15,148
323	Youth Center	7,009
345	Bowling Center	7,800
410	Commissary	34,303
412	Tinker Credit Union	1,431
413	Central Nat'l Bank	1,400
415	Base Exchange	34,853
421	UEQ	25,146
423	UEQ	25,146
455	Vancello's	15,683
500	Wing HQ Admin	45,690
518	Logistics Center	6,150
522	BX Service Station	1,296
527	Security Forces	8,336
528	Chapel Annex	7,195
541	Flt Tng Upt	13,231
542	Shop Surv Equip	8,991
600	Non-AF Admin	9,319
641-646	UOQ	112,002

Bldg No.	Facility Function	Square Feet
672	Flight Simulator Trng	87,923
690	Flight Training	26,652
708	Vance Club	20,524
713	VOQ	15,776
790	TLF	4,758
795	Rapcon Center	9,995
810	AF Clinic	32,746
811	Ambulance Shelter	2,678
826	Physiological	7,824
	TOTAL – 49 METERS	

J2.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6**. New secondary meters shall be installed IAW Paragraph C.13, Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3.3 and J2.6 below.

TABLE 6
New Secondary Meters
Natural Gas Distribution System - Vance AFB

Meter Location	Meter Description
Note: The installation has identified no new, specific secondary meter requirements.	

J2.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. **Invoice** (IAW G.2): The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to:

   Name: Rick Boggs
   71 FTS/LS/CE
   Address: 320 Young Road
   Vance AFB, OK 73705
   Phone number: (580) 213-7071

2. **Outage Report**: The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

Name: Rick Boggs
71 FTS/LS/CE
Address: 320 Young Road
Vance AFB, OK 73705
Phone number: (580) 213-7071

3. **Meter Reading Report**: The monthly meter reading report shall show the current and previous month readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to:

   Name: Rick Boggs
   71 FTS/LS/CE
   Address: 320 Young Road
   Vance AFB, OK 73705
   Phone number: (580) 213-7071

4. **System Efficiency Report:** If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to:

   Name: Rick Boggs
   71 FTS/LS/CE
   Address: 320 Young Road
   Vance AFB, OK 73705
   Phone number: (580) 213-7071

J2.7 Energy Saving Projects

IAW Paragraph C.3, Requirement, there are currently no demand side management (DSM) or energy-saving performance contract (ESPC) arrangements that would have any significant effect on the natural gas distribution system.

J2.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Vance AFB boundaries.

J2.9 Off-Installation Sites

No off-Installation sites are included in the sale of the Vance AFB natural gas distribution system.

J2.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 7** provides a listing of service connections and disconnections required upon transfer.

TABLE 7
Service Connections and Disconnections
Natural Gas Distribution System - Vance AFB

Location	Description
None	

J2.11 Government Recognized System Deficiencies

Table 8 provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Vance AFB natural gas distribution system. If the utility system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewal and Replacement Plan process and will be recovered through Schedule L-3. Renewal and Replacement projects will be recovered through Sub-CLIN AB.

TABLE 8
System Deficiencies
Natural Gas Distribution System - Vance AFB

Project Location	Project Description
Base-wide	*Project 880016 – Repair Base Natural Gas Valves.* Repair and or replace existing natural gas isolation valves, valve boxes and covers. A total of 73 isolation valves are included in the project and range in size from 2" to 8".