

ATTACHMENT J6

Dyess AFB Natural Gas Distribution System

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J6 Dyess AFB Natural Gas Distribution System

J6.1 Dyess AFB Overview

Dyess AFB, located on the western edge of Abilene in Taylor County, Texas, is an Air Combat Command (ACC) installation that maintains a combat-ready force capable of conducting long-range (global) bombardment and airlift operations. The host command is the 7th Bomb Wing (7 BW), which includes two B-1 Bomber (B-1B) squadrons—one operational and one training—and conducts all USAF B-1B training. The Base's primary tenant is the 317th Airlift Group (317 AG), an Air Mobility Command (AMC) unit that conducts airlift and airdrop operations with C-130 aircraft. Other tenants include:

- Defense Investigative Service – Abilene Resident Agency
- Federal Aviation Administration
- Defense Reutilization and Marketing Office
- Marine Reserves
- Base Exchange and Commissary
- Defense Contract Management
- Dyess Federal Credit Union
- NationsBank of Texas

Dyess AFB occupies 6,417 acres and contains 1,473 buildings enclosing approximately 4.4 million square feet (sf). Of these buildings, approximately 1,100 are used for housing; the non-housing structures include offices, industrial maintenance and repair facilities, flight operations structures, and community service facilities (e.g., a 15-bed hospital). Three parallel runways, a parking apron for approximately 90 aircraft, and airfield buildings occupy the western portion of the Base.

Abilene borders the Base to the east, the town of Tye to the north, and unincorporated Taylor County to the south and west.

The Base has a total population of approximately 5,500, including military personnel, dependents, and civilian employees. Dyess AFB's annual payroll is approximately \$216 million (combined military and civilian) and the Base is estimated to contribute approximately \$300 million annually to the local economy through civilian employment, contracting, and purchases from local businesses.

The Base was established in 1942 as Tye Army Airfield, a temporary pilot training installation. Following the end of World War II, the airfield was closed and the land sold to the City of Abilene. The Texas State National Guard used the former airfield as a training facility from 1947 to 1952. During the Korean Conflict, the City purchased an additional 3,500 acres adjacent to the former airfield and offered it to the DoD. Construction of Dyess AFB began in 1953, and the Base's current bombardment and airlift missions date from this period. From 1961 to 1965, Dyess AFB also contained launch silos for Atlas F missiles.

New facilities have been added or upgraded throughout the years to accommodate changing missions and new aircraft. Most of the planned capital improvement projects involve upgrades or repairs to the existing facilities. Key new projects planned for the Base are:

- Child Development Center
- 9th Bomb Squadron Operations Facilities
- Fire Station
- Dormitory
- Munitions Management Facility
- Support Equipment Addition

These and other projects will increase the total square footage of buildings on Base by approximately 66,000 square feet, or 1.5 percent.

J6.2 Natural Gas Distribution System Description

J6.2.1 Natural Gas Distribution System Fixed Equipment Inventory

The Dyess 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, cathodic protection systems, and meters. The actual inventory of items sold will be established 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 from the natural gas distribution system privatization are:

- None.

J6.2.1.1 Description

Lone Star Gas Company transports natural gas to Dyess AFB. The Base buys natural gas on the spot market and only pays Lone Star a transportation tariff. Natural gas is used to meet space and water heating requirements on Base, primarily in buildings. There are no natural gas fired air conditioners or compressed natural gas (CNG) fueling stations on Base.

Most of the system is in excess of 30 years old. The calculated average system age is 28. Most new piping installations are typically polyethylene (PE). In some cases the steel system will be replaced in kind. The old system is a combination of coated carbon steel and ductile iron (mechanical joint). The ductile iron (DI) was installed with mechanical joints (rather than push-on joints). Over the years these joints might be susceptible to leaks, but operators identified dig-ins and steel plug valves (that have not been properly greased) as

responsible for most of the system leaks. A sacrificial anode system has been installed on many of the steel and DI systems.

The distribution system is fed through three Dyess AFB regulator stations, which are fed by two Lone Star gate stations. The distribution system is cross connected and looped to allow the Base to operate from one LSG gate station. Also, the distribution system is looped so that, in nearly all locations, buildings can be fed from at least two different paths.

The Base operates at a system pressure of 25 to 30 pounds per square inch gauge (psig). Each building has at least one regulator to lower the gas pressure for equipment and appliance use (i.e., 7 inches of water to 1 psig). Some buildings have gas meters, which were installed for internal charging and energy management purposes.

The distribution piping is 95 percent coated steel and DI and 5 percent PE. Mains range from 3 to 6 inches in diameter, and service lines range from 1 to 1-1/4 inches.

J6.2.1.2 Inventory

Table 1 provides a general listing of the major natural gas distribution system fixed assets for the Dyess AFB natural gas distribution system included in the sale.

TABLE 1
Fixed Inventory
Natural Gas Distribution System Dyess AFB

Item	Size (in.)	Quantity	Unit	Approximate Year of Construction
<u>PE Gas Pipe</u>	3	6,750	lf	1990
	2	3,800	lf	1990
	1	600	lf	1990
<u>Steel Gas Pipe</u>	6	9,425	lf	1969
	4	45,720	lf	1969
	3	11,630	lf	1969
	2.5	5,470	lf	1969
	2	55,225	lf	1969
	1.5	7,280	lf	1969
	1	75,550	lf	1969
<u>Steel Plug Valves</u>	6	19	ea	1969
	4	92	ea	1969
	3	24	ea	1969
	2	111	ea	1969
	1	152	ea	1969
<u>Steel Plug Valves</u>	3	14	ea	1990
	2	8	ea	1990
	1	2	ea	1990
<u>Large Regulators</u>		3	ea	1969
<u>Small Regulators</u>		500	ea	1985
<u>Large Meters</u>	1 psi	6	ea	1969
<u>Small Meters</u>	7 in. H2O	64	ea	1969
<u>Catholic Protection (sacrificial anode system)</u>		200	ea	

Notes: PE = polyethylene in. = inches
lf = linear feet ea = each
psi = pounds per square inch

J6.2.2 Natural Gas Distribution System Non-Fixed Equipment and Specialized Tools Inventory

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the sale. Offerors shall field verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 2
Spare Parts
Natural Gas Distribution System Dyess AFB

Qty	Item	Make/Model	Description	Remarks
	No spare parts are included in the privatization of this utility system.			

TABLE 3
Specialized Vehicles and Tools
Natural Gas Distribution System Dyess AFB

Qty	Item	Make/Model	Description	Remarks
	No specialized vehicles or tools are included in the privatization of this utility system.			

J6.2.3 Natural Gas Distribution System Manuals, Drawings, and Records Inventory

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 Dyess AFB

Qty	Item	Description	Remarks
1	CD	Utility System Drawings	Natural Gas Distribution System

J6.3 Specific Service Requirements

The service requirements for the Dyess AFB natural gas distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Dyess AFB natural gas distribution system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

- Leak detection surveys shall be performed IAW the Texas Railroad Commission (RRC) and 49 CFR 192 standards and frequencies. Dyess Air Force Base is classified as a business district for the purpose 49 CFR 192.
- The Contractor shall provide monthly meter reading reports IAW Paragraph J6.6, and that meet the following requirements:

The Contractor shall keep meter books with monthly consumption and demand (if applicable) for each meter reading. Meter books shall also include building address or facility number, meter number, previous month readings, current month readings, multipliers for each meter, total monthly consumption, points of contact for meter questions, and procedure for converting meter reads into consumption (including multipliers). The Contractor shall coordinate with the Government to determine the format for meter books to be delivered.

- The Contractor shall enter into a Memorandum of Understanding with the Dyess Air Force Base Fire Department for fire protection of all facilities included in the purchase of the utility. The Contractor shall abide by Dyess AFB fire protection requirements. The Contractor shall maintain the fire alarm system for all facilities included in the purchase of the utility. The Contractor shall permit Fire Department personnel access to their facilities to perform fire inspections and emergency response.
- IAW Paragraph C.9.8, *Exercises and Crisis Situations Requiring Utility Support*, the Contractor shall provide support as directed by the Dyess Air Force Base Civil Engineer Control Center for exercises and crisis situations.

J6.4 Current Service Arrangement

Lone Star Gas Company transports natural gas to Dyess AFB. The Base buys natural gas on the spot market and only pays Lone Star a transportation tariff. Actual operating flow data from November 1997 to March 1998 indicate the following:

- Peak hourly load was 92,700 scfh.
- Peak daily load was 1,878,100 cf/day (occurring December 11, 1997).

The natural gas distribution system is designed for peak flows of:

- 230,000 standard cubic feet per hour (scfh)
- 4,040,000 cubic feet per day (cf/day)
- 275,000,000 cubic feet per year (cf/yr)

J6.5 Secondary Metering

The Installation may require secondary meters for internal billings of their reimbursable customers, utility usage management, and conservation monitoring. The Contractor shall assume full ownership and responsibility for existing and future secondary meters IAW Paragraph C.3.

J6.5.1 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. The Contractor shall provide meter readings once a month for all secondary meters IAW Paragraph C.3 and J6.6 below.

TABLE 5
Existing Secondary Meters
Natural Gas Distribution System Dyess AFB

Meter Location	Meter Description
A comprehensive list will be provided after contract award.	

J6.5.2 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 and J6.6 below.

TABLE 6
New Secondary Meters
Natural Gas Distribution System Dyess AFB

Meter Location	Meter Description
Building 7106	Gas Meter
Building 7113	Gas Meter
Building 7401	Gas Meter
Building 7402	Gas Meter
Building 9220	Gas Meter
Building 9220	Gas Meter
Line feeding the housing area by building 11990	Gas Meter
Line feeding the housing by 4 th Street and D Avenue	Gas Meter

J6.6 Submittals

The Contractor shall provide the Government 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: 7 CES/CEOEX Utility Engineer
Address: 710 3rd Street Dyess AFB, TX. 79607-1670
Phone number: 915-696-5628

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 include the following information for Scheduled and Unscheduled outages:

Scheduled: Requestor, date, time, duration, facilities affected, feedback provided during outage, outage notification form number, and digging clearance number.

Unscheduled: Include date, time and duration, facilities affected, response time after notification, completion times, feedback provided at time of outage, specific

item failure, probability of future failure, long term fix, and emergency digging clearance number.

Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

Name: 7 CES/CEOEX Utility Engineer
Address: 710 3rd Street Dyess AFB, TX. 79607-1670
Phone number: 915-696-5628

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: 7 CES/CEOEX Utility Engineer
Address: 710 3rd Street Dyess AFB, TX. 79607-1670
Phone number: 915-696-5628

4. System Efficiency Report. The Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. The Contracting Officer will determine the frequency of the report based on Government requirements. System efficiency reports shall be submitted to:

Name: 7 CES/CEOEX Utility Engineer
Address: 710 3rd Street Dyess AFB, TX. 79607-1670
Phone number: 915-696-5628

J6.7 Energy Saving Projects

IAW Paragraph C.3, Requirement, the following projects have been implemented by the Government for energy conservation purposes.

- None

J6.8 Service Area

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

J6.9 Off-Installation Sites

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

J6.10 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 Dyess AFB

Location	Description
	The Government does not require any connection or disconnections during the transition period.

J6.11 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 Dyess AFB natural gas distribution system. If the natural gas distribution 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 Dyess AFB

Project Identifier/Location	Project Description
Various points on the Base.	19-6", 92-4", 24-3", 111-2", and 152-1" steel plug gas valves on main base and in military family housing are in need of repair and/or replacement. The 3 main regulators are in need of service and/or replacement. One of these 3 regulators is in an underground vault and the vault is too small to meet standards.