

Tucson IAP (ANG) Electric Distribution System

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J5 Tucson IAP (ANG) Electric Distribution System

J5.1 Tucson IAP (ANG) Overview

Tucson IAP (ANG) is located in the southern part of Tucson, Arizona wedged between Interstates 10 and 19. It's home to the 162nd Fighter Wing whose mission in peacetime is to provide F-16 training for Air Force, Air National Guard, Air Force Reserve, and foreign aircrews and in wartime to continue combat aircrew training and provide filler forces in direct support of war operations. The base encompasses 94 acres and contains 36 buildings; 35 industrial and 1 administrative with a total of approximately 530,000 square feet. There is no family or transient housing. The day-to-day base population is approximately 1000 personnel; however, one weekend each month the population surges to 1600 in response to Air National Guard drills.

J5.2 Electric Distribution System Description

J5.2.1 Electric Distribution System Fixed Equipment Inventory

The Tucson IAP (ANG) electric 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, transformers, circuits, switches, manholes, and meters. 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 from the electric distribution system privatization are:

- Airfield Lighting
- Parking Lot Lights
- Street Lights
- Ballfield Lights

J5.2.1.1 Description

- The Tucson IAP (ANG) underground, radial electrical distribution system was constructed from 1986 to 1999 and services 36 facilities. Electrical power enters the base underground at 13.8 kV. The system consists of approximately 8,600 LF of underground distribution lines buried in conduit at an average depth of three feet; 26 three-phase transformers, 3 underground voltage switches, 23 pre-cast concrete manholes, and 33 secondary meters. Base personnel indicate the system capacity is adequate to meet current and projected demands.

J5.2.1.2 Inventory

TABLE 1 provides a general listing of the major electric distribution system fixed assets for the Tucson IAP (ANG) electric distribution system included in the sale.

Table 1
Fixed Inventory
Electric Distribution System Tucson IAP (ANG)

Item	Size	Quantity	Unit	Approximate Year of Construction
Underground Circuits 3ph, 3w, 15000v in conduit	AWG			
	#1/0	4516	LF	1986
	#1/0	1242	LF	1988
	#1/0	616	LF	1989
	#1/0	523	LF	1990
	#1/0	154	LF	1992
	#1/0	950	LF	1994
	#1/0	591	LF	1999
3-Phase Transformers	kVA			
- Oil-Filled, Pad Mounted	75	1	EA	1986
- Oil-Filled, Pad Mounted	75	1	EA	1992
- Oil-Filled, Pad Mounted	112.5	2	EA	1986
- Oil-Filled, Pad Mounted	112.5	1	EA	1988
- Oil-Filled, Pad Mounted	150	2	EA	1986
- Oil-Filled, Pad Mounted	150	1	EA	1989
- Oil-Filled, Pad Mounted	150	1	EA	1990
- Oil-Filled, Pad Mounted	225	1	EA	1986
- Oil-Filled, Pad Mounted	225	1	EA	1988
- Oil-Filled, Pad Mounted	250	1	EA	1986
- Oil-Filled, Pad Mounted	300	1	EA	1986
- Oil-Filled, Pad Mounted	300	1	EA	1988
- Oil-Filled, Pad Mounted	300	1	EA	1999
- Oil-Filled, Pad Mounted	500	2	EA	1986
- Oil-Filled, Pad Mounted	500	1	EA	1999
- Oil-Filled, Pad Mounted	500	1	EA	1993
- Oil-Filled, Pad Mounted	750	2	EA	1986
- Oil-Filled, Pad Mounted	750	1	EA	1988

Item	Size	Quantity	Unit	Approximate Year of Construction
- Oil-Filled, Pad Mounted	1000	1	EA	1986
- Oil-Filled, Pad Mounted	1000	1	EA	1990
- Oil-Filled, Pad Mounted	1500	1	EA	1994
- Oil-Filled, Pad Mounted	2000	1	EA	1986
Underground Switches, 3 ph				
- 4 Way		1	EA	1986
Capacitor Bank Cabinet		1	EA	1992
Meter Cabinet		1	EA	1986
Electrical Manholes (Precast Concrete)	6 Foot	20	EA	1986
	6 Foot	2	EA	1988
	6 Foot	1	EA	1999
Electrical Secondary Meters	3ph, 1:1	2	EA	1958
	3ph, 1:1	1	EA	1961
	3ph, 1:1	1	EA	1982
	3ph, 1:1	1	EA	1986
	3ph, 1:1	1	EA	1988
	3ph, 1:1	5	EA	1989
	3ph, 1:1	1	EA	1991
	3ph, 1:1	1	EA	1992
	3ph, 1:1	1	EA	1995
	3ph, 1:1	1	EA	1962
	3ph, 1:1	1	EA	1990
	3ph, 1:4	1	EA	1988
	3ph, 1:60	1	EA	1962
	3ph, 1:120	1	EA	1958
	3ph, 1:120	1	EA	1959
	3ph, 1:120	1	EA	1960
	3ph, 1:120	1	EA	1988
	3ph, 1:120	1	EA	1993
	3ph, 1:120	2	EA	1999
	3ph, 1:240	1	EA	1958
	3ph, 1:240	1	EA	1961

Item	Size	Quantity	Unit	Approximate Year of Construction
	3ph, 1:240	1	EA	1966
	3ph, 1:240	1	EA	1977
	3ph, 1:240	1	EA	1988
	3ph, 1:240	1	EA	1989
	3ph, 1:320	1	EA	1990
	3ph, 1:400	1	EA	1994

Notes:

AWG = American Wire Gauge

ph = phase

EA = each

LF = linear feet

kVA = nominal kilovolt-amperes

J5.2.2 Electric Distribution System Non-Fixed Equipment and Specialized Tools

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. 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

Electric Distribution System Tucson IAP (ANG)

Qty	Item	Make/Model	Description	Remarks
None				

TABLE 3

Specialized Vehicles and Tools

Electric Distribution System Tucson IAP (ANG)

Description	Quantity	Location	Maker
None			

J5.2.3 Electric 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
Electric Distribution System Tucson IAP (ANG)

Item	Description	Remarks
Electrical Drawings	Master Plan Electrical, dated March 1986	Revised July 1994 (There are no AutoCAD drawings available)

J5.3 Specific Service Requirements

The service requirements for the Tucson IAP (ANG) electric distribution system are as defined in the Section C Description/Specifications/Work Statement.

J5.4 Current Service Arrangement

- Current Provider: Tucson Electric Power
- Average Annual Usage: 9,851,170 kWh
- Maximum Monthly Usage (1999): 1,117,240 kWh
- Minimum Monthly Usage(1999): 652,971 kWh
- Maximum Demand: 10,135,924 kWh

J5.5 Secondary Metering

J5.5.1 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 for all secondary meters IAW Paragraph C.3 and J5.6 below.

TABLE 5
Existing Secondary Meters
Electric Distribution System Tucson IAP (ANG)

Meter Location (Building)	Meter Description (3-Phase Multiplier)
1	1:240
3	1:1
5	1:120
6	1:1
Meter Location (Building)	Meter Description (3-Phase Multiplier)
8	1:1

9	1:240
10	1:400
12	1:320
15 (bar)	1:1
15 (kitchen)	1:60
16	1:1
19	1:1
21	1:120
22	1:1
25	1:120
27	1:1
28	1:1
29	1:1
30	1:1
31	1:1
32	1:4
33	1:240
34	1:240
35	1:120
38	1:120
39	1:100
40	1:120
40 (Temporary)	1:1
41	1:120
44	1:500
47	1:1
49	1:240
50	1:120
Avionics Intermediate Station	1:240
Paint Booth	1:1

J5.5.2 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 J5.6 below.

TABLE 6
 New Secondary Meters
 Electric Distribution System Tucson IAP (ANG)

Meter Location	Meter Description
Building 11	3-Phase, KWH

J5.6 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 the person identified at time of contract award.
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 the person identified at time of contract award.
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 the person identified at time of contract award.
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 the person identified at time of contract award.

J5.7 Energy Saving Projects

IAW Paragraph C.3, Requirement, the following projects have been implemented on the distribution system by the Government for energy conservation purposes: None

J5.8 Service Area

IAW Paragraph C.4 Service Area, the service area is defined as all areas within the Tucson IAP (ANG) boundaries.

J5.9 Off-Installation Sites

No off-installation sites are included in the sale of the Tucson IAP (ANG) electric distribution system.

J5.10 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
Electric Distribution System Tucson IAP (ANG)

Location	Description
Bldg. 10	The wastewater contractor will be responsible for completely removing the electrical controls and appurtenances from the mechanical room in Bldg. 10 and relocating them adjacent to Lift Station #1.
Bldg. 28	The wastewater contractor will be responsible for completely removing the electrical controls and appurtenances from the mechanical room in Bldg. 28 and relocating them to the north face of Bldg. 28.

J5.11 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 Tucson IAP (ANG) electric distribution system. If the 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 Renewals and Replacements 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
Electric Distribution System Tucson IAP (ANG)

Project Location	Project Description
None	