

ATTACHMENT J1

# Travis AFB Electric Distribution System

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TABLE OF CONTENTS

**TRAVIS AFB ELECTRIC DISTRIBUTION SYSTEM ..... I**

**J1 TRAVIS AFB ELECTRIC DISTRIBUTION SYSTEM..... 1**

J1.1 TRAVIS AFB OVERVIEW ..... 1

J1.2 ELECTRIC DISTRIBUTION SYSTEM DESCRIPTION ..... 2

    J1.2.1 ELECTRIC DISTRIBUTION SYSTEM FIXED EQUIPMENT INVENTORY..... 2

        J1.2.1.1 DESCRIPTION ..... 3

        J1.2.1.2 INVENTORY..... 5

    J1.2.2 ELECTRIC DISTRIBUTION SYSTEM NON-FIXED EQUIPMENT AND SPECIALIZED TOOLS . 8

    J1.2.3 ELECTRIC DISTRIBUTION SYSTEM MANUALS, AND RECORDS DRAWINGS,..... 9

J1.3 SPECIFIC SERVICE REQUIREMENTS..... 9

J1.4 CURRENT SERVICE ARRANGEMENT..... 10

J1.5 SECONDARY METERING ..... 10

    J1.5.1 EXISTING SECONDARY METERS..... 10

    J1.5.2 REQUIRED NEW SECONDARY METERS ..... 11

J1.6 MONTHLY SUBMITTALS..... 13

J1.7 ENERGY SAVING PROJECTS ..... 14

J1.8 SERVICE AREA ..... 15

J1.9 OFF-INSTALLATION SITES..... 15

J1.10 SPECIFIC TRANSITION REQUIREMENTS..... 15

J1.11 GOVERNMENT RECOGNIZED SYSTEM DEFICIENCIES..... 15

**LIST OF TABLES**

TABLE 1 - FIXED INVENTORY ..... 5

TABLE 2 - SPARE PARTS ..... 9

TABLE 3 - SPECIALIZED VEHICLES AND TOOLS..... 9

TABLE 4 - MANUALS, DRAWINGS, AND RECORDS ..... 9

TABLE 5 - EXISTING SECONDARY METERS..... 11

TABLE 6 - NEW SECONDARY METERS..... 12

TABLE 7 - SERVICE CONNECTIONS AND DISCONNECTIONS..... 15

TABLE 8 - SYSTEM DEFICIENCIES..... 16

# J1 Travis AFB Electric Distribution System

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## J1.1 Travis AFB Overview

Travis Air Force Base (AFB), located 50 miles northeast of San Francisco at Fairfield, California, is an Air Mobility Command (AMC) installation.

Travis AFB is named in honor of Brigadier General Robert F. Travis, who was killed in a B-29 crash at the Installation on 5 August 1950. At the time of his death, the general was commander of the 9th Heavy Bombardment Wing and was the Base's commanding general. Formal dedication ceremonies were held on 21 April 1951.

Although today Travis is the home of the largest airlift organization in the Air Force, it began as an isolated airstrip with a few tarpaper shacks set in the middle of a wind-swept prairie during World War II. Activated on 11 May 1943, the field was named Fairfield-Suisun Army Air Base, after the two closest, mostly agricultural, towns. Planned shortly after Pearl Harbor, the Base served as home for medium bombers and fighters assigned to defend the West Coast. The first runway and temporary buildings were constructed by the Army Corps of Engineers in the summer of 1942. They were used initially by Army and Navy fighter planes for takeoff and landing practice. For a few months, the outline of an aircraft carrier's deck was painted on the runway to help newly commissioned Navy pilots practice maneuvers. The strong local prevailing winds nearly duplicated those at sea.

Shortly after construction began, however, the Base's potential as a major aerial port and supply transfer point for the Pacific theater led the Army Air Corps to assign it to the newly-designated Air Transport Command. The Base officially opened 1 June 1943, with a primary mission of servicing and ferrying tactical aircraft from California across the Pacific to the war zone. By 1945, the Base had become the West Coast's largest aerial port. The airlift of troops and supplies to occupied Japan and Korea, and the processing of war-weary returning GIs, had become the primary mission. On 1 June 1948, the Military Air Transport Service (MATs) assumed jurisdiction. In July, two of the Base's air transport squadrons left for Europe to assist in the Berlin Airlift.

On 1 May 1949, the Strategic Air Command (SAC) became the parent major command for the Base, turning it into a major long-range reconnaissance and intercontinental bombing installation. For the next nine years, airlift operations became secondary while the Base served as home for SAC bombers such as the B-29, B-36, and eventually, the B-52. During this period, new hangars appeared, runways were added and widened, and permanent barracks and family living quarters were built. The Base grew to its present size, which encompasses 6,383 acres.

MATs resumed command of Travis AFB on 1 July 1958, after SAC's new dispersal policy led to the transfer of the 14th Air Division to Beale AFB, California. The Base became headquarters the 1501st Air Transport Wing--1955; for MATs's Western Transport Air Force (later 22<sup>nd</sup> Air Force)--1958; and the 60th Military Airlift Wing (later the 60th Airlift Wing, later the 60th Air Mobility Wing)--1966. The 60th replaced the 1501st as the host unit on

Travis on 8 January 1966. The 349 MAW (USAF Reserve) joined with the 60th when it moved from Hamilton AFB, California, in 1969.

Travis became part of the Air Mobility Command on 1 June 1992, when assets from MAC and SAC were fused into a single team. AMC's primary mission is mobility for America's armed forces. Travis supports this capability by deploying air and air mobile forces anywhere in the world, and sustains them in a conflict. The Base has become the largest in AMC in terms of aircraft and personnel. The only wing to fly both the C-5 "Galaxy" and the C-141 "Starlifter", the Base added the KC-10 "Extender" to its inventory in 1994.

With the addition of the KC-10 community, and with other force structure changes, Travis AFB's construction budget for Fiscal Years 1993 through 1997 totaled nearly \$1 billion.

Known as the "Gateway to the Pacific", Travis handles more cargo and passenger traffic through its aerial port than any other military air terminal in the United States. Additionally, the Base has had a long and proud history of supporting humanitarian airlift at home and around the world. Today, the Travis Team includes approximately 7,260 active military, 3,770 civilians, and 4,250 reservists.

Travis AFB encompasses a total of 6,383 acres (5,128 owned; 1,255 leased). There are no utility components on lease property that are included in the privatization package. Travis AFB has two runways, each approximately 11,000 feet. There are 2,273 buildings totaling approximately 10 million square feet on Base: 921 industrial/administrative facilities totaling 6.3 million square feet and 2,607 military family housing (MFH) units totaling 3.7 million square feet. Travis AFB has an annual payroll of approximately \$450 million (combined military and civilian), and the Base contributes significantly to the local economy through civilian employment, contracting, and purchases from local businesses.

## J1.2 Electric Distribution System Description

### J1.2.1 Electric Distribution System Fixed Equipment Inventory

The Travis AFB electric distribution system consists of all appurtenances physically connected to the distribution system from the point where the distribution system enters the Installation and Government ownership currently starts to the downstream points of demarcation, defined by the Right of Way. The system includes, but is not limited to, transformers, circuits, protective devices, utility poles, duct banks, switches, and other ancillary fixed equipment. 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 prospective new owner 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:

- The airfield lighting system.

- Parking lot and area floodlights with controls inside adjacent buildings.
- Street lighting.
- All Government-owned electric distribution components in the MFH areas serving MFH units.

### J1.2.1.1 Description

Electrical power for Travis AFB is purchased from Western Area Power Administration (WAPA) and is delivered by a 60-kilovolt (kV) Pacific Gas and Electric Company (PG&E) transmission line. The PG&E transmission line enters the Base along the northern boundary and extends south along Burgan Boulevard to the Air Force-owned Substation A. PG&E ownership terminates at the line conductor dead-end attachments on the Air Force-owned structure. WAPA's 60 kV metering equipment is located in this substation.

The Air Force owns the electrical distribution system downstream of this delivery point. It consists of approximately four miles of overhead 60 kV transmission circuit, four 60-12.47 kV distribution substations, and approximately 57 miles of 12.47 kV and 4.16 kV primary distribution circuit. This distribution system serves the entire Base except the Onizuka Flats Housing area.

Substation A performs both transmission switching and distribution substation functions. It is a conventional, outdoor, air-insulated substation consisting of three 60 kV line terminations (one PG&E-owned line and two Air Force-owned lines), three 115 kV gas circuit breakers, two 7.5 megavolt ampere (MVA) 60 x 115 - 12.47 kV load-tap changing (LTC) power transformers, two 5 MVA 12.47 - 4.16 kV step-down transformers, 26 15 kV metal-clad circuit breakers, and two 3,600 kilovolt ampere reactive (kVAR) metal-enclosed capacitor banks. The transmission switching equipment provides control and overcurrent protection for two out-going, Air Force-owned, 60 kV transmission lines supplying Substations B, C, and the David Grant Medical Center (DGMC) Substation. The distribution equipment is configured in a sectionalized duplex bus arrangement. It provides voltage regulation, control, and overcurrent protection for **five** 12.47 kV feeders and **16** 4.16 kV feeders.

The primary bus, primary protective equipment, and power transformers in Substations A, B, and C are currently operated at 60 kV but are insulated for future 115 kV operations.

Substation B consists of two 60 kV line terminations, two 115 kV gas circuit breakers, two 7.5 MVA 60 x 115 - 12.47 kV LTC power transformers, one 5 MVA 12.47 - 4.16 kV step-down transformer, twenty-four 15 kV metal-clad circuit breakers, and two 3,600 kVAR metal-enclosed capacitor banks. It is a conventional, outdoor, air-insulated distribution substation configured in a sectionalized duplex bus arrangement. This substation provides voltage regulation, control, and overcurrent protection for **13** 12.47 feeders and **eight** 4.16 kV feeders.

Substation C consists of two 60 kV line terminations, two 115 kV gas circuit breakers, two 7.5 MVA 60 x 115 - 12.47 kV LTC power transformer, 16 15 kV metal-clad circuit breakers, and two 3,600 kVAR metal-enclosed capacitor banks. It is a conventional, outdoor air-insulated distribution substation configured in a sectionalized duplex bus arrangement. This substation provides voltage regulation, control, and overcurrent protection for **13** 12.47

kV feeders. Two of these 12.47 kVA feeders will be included in the Utility Privatization (UP) package while the remaining feeders will be included in the Housing Privatization (HP) initiative.

The DGMC Substation consists of one 60 kV line termination, one 7.5 MVA 60-12.47 kV LTC power transformer, one 7.5 MVA 21 - 12.47 kV step-down transformer, three 15 kV metal-clad circuit breakers, and two 3,600 kVAR metal-enclosed capacitor banks. It is a conventional, outdoor, air-insulated distribution substation configured in a single bus arrangement. This substation provides voltage regulation, control, and overcurrent protection for the DGMC 12.47 kV electrical system. This substation can also be supplied from a PG&E-owned 21 kV backup feeder during emergencies and contingencies.

Two 60 kV transmission circuits originate at Substation A. One circuit supplies Substations B and C, and the other supplies the DGMC Substation. They are constructed in a single pole, single circuit configuration, and utilize narrow-profile, horizontal post insulator pole top assemblies, with 266.8 thousand circular mils (kcmil) aluminum-conducting-steel-reinforced (ACSR) conductor. These transmission circuits are currently operated at 60 kV. Approximately 70 percent of this circuitry is insulated for future 115 kV operations.

The primary distribution system consists of a total of 29 4.16 kV circuits and 34 12.47 kV circuits. It is composed of overhead, pole-line construction (conventional, crossarm/pin insulator, open wire construction practices) with pole-mounted transformer banks, and underground construction (utilizing both duct-type and direct burial construction practices) with both outdoor pad-mounted transformers and indoor primary unit substations. It is estimated that 40 percent of the electrical ductbank in the Main Base area and 20 percent of the electrical ductbank in the MFH areas lie beneath 3-inch asphalt pavements.

The overhead primary system is principally composed of bare ACSR conductors of various sizes, with #2 the most common. The underground primary system is principally composed of shielded copper conductors of various sizes, with #2, 2/0, and 250 kcmil the most common. The majority of the distribution circuits are configured with loop tie switches to neighboring circuits. The pad-mounted transformers are principally conventional, dead-front units.

Electrical power for the Cypress Lakes Golf Course sites is supplied from a 12.47 kV primary metered delivery point owned by PG&E. The Air Force owns the electrical distribution systems downstream of this delivery point, which is predominately composed of overhead, pole-line construction (conventional, cross arm/pin insulator, open wire construction practices) with pole-mounted transformer banks.

Two generators and their associated switchgear are included in the UP package. One generator (500 kVA diesel) is located in Building 221 and primarily serves Building 381. The other generator (750 kVA diesel) is located in Building 916 and supports Building 977. The unique feature of these generators is that they produce primary voltage and are switched upstream of facility transformers.

There are substantial changes being planned for Travis MFH. A recent Housing Market Analysis has established the Travis housing requirement at 1,169 units, less than half of the 2,607 units currently available. The current plan calls for privatization of 774 units, less than 10 years old. Two housing leases that expire in 2010 and 2011 will not be renewed and the

remaining older Government-owned units will be demolished and replaced with 395 new, privatized units. These initiatives will, over the next several years, substantially affect the utility distribution systems for the housing areas. Because of these impending changes, all Government-owned electric distribution components in the Housing areas serving Housing units are categorically excluded from this UP package.

### J1.2.1.2 Inventory

**Table 1** provides a general listing of the major electric distribution system fixed assets for the Travis AFB electric distribution system included in the sale.

**TABLE 1**  
 Fixed Inventory  
*Electric Distribution System – Travis AFB*

Component	Size	Unit	Quantity	Approximate Year of Construction
<b>MAIN BASE</b>				
<b>Overhead</b>				
Cable Aerial Aluminum ACSR	#2	SCLF	208,300	1979
Cable Aerial Aluminum ACSR	#4	SCLF	79,000	1984
Cable Aerial Aluminum ACSR	4/0	SCLF	10,560	1984
Cable Aerial Aluminum ACSR	266.8 kcmil	SCLF	62,400	1989
Conductor, MV, Copper	1/0	SCLF	73,300	1979
Conductor, MV, Copper	4/0	SCLF	21,700	1995
<b>Underground</b>				
Conductor UG Copper	#2	SCLF	91,050	1979
Conductor UG Copper	1/0	SCLF	1,800	1979
Conductor UG Copper	2/0	SCLF	106,920	1979
Conductor UG Copper	4/0	SCLF	61,260	1979
Conductor UG Copper	250 kcmil	SCLF	49,920	1979
Conductor UG Copper	250 kcmil	SCLF	63,900	2001
Conductor UG Copper	500 kcmil	SCLF	65,100	1995
Conductor UG Copper	4/0	SCLF	3,500	1989
Conductor UG Copper	4/0	SCLF	3,500	1994
<b>Ductbank</b>				
PVC	1x2	LF	22,000	1979
PVC	2x3	LF	66,000	1979
PVC	2x3	LF	21,700	1995
<b>Substation Components</b>				
<b>Substation A</b>				
Substation Transformer, Power	110kV	MVA	15	1989
Substation Transformer, Power	13kV	MVA	10	1989
Substation Transformer, PT	13-26kV	EA	6	1989
Substation Transformer, PT	13-26kV	EA	6	1994
Substation Transformer, CT	161kV	EA	3	1989
Substation Capacitors	13-26kV	MVAR	7.2	1989
Substation Circuit Breakers, Gas	161kV	EA	2	1989
Substation Circuit Breakers, Gas	115kV	EA	1	2001

Component	Size	Unit	Quantity	Approximate Year of Construction
Substation Circuit Breakers, Vacuum	13-26kV	EA	19	1989
Substation Circuit Breakers, Vacuum	13-26kV	EA	7	1994
Substation Disconnect Switches	161kV	EA	7	1989
Substation Reactors & Resistors	13-26kV	EA	2	1989
Substation Lightning Arrestors	161kV	EA	12	1989
Substation Insulators, Pedestal		EA	24	1989
Substation Batteries		KAH	.23	1989
Substation Battery Chargers		EA	2	1989
<b>Substation B</b>				
Substation Transformer, Power	110kV	MVA	15	1994
Substation Transformer, Power	13kV	MVA	5	2002
Substation Transformer, PT	13-26kV	EA	6	2002
Substation Capacitors	13-26kV	MVAR	7.2	1994
Substation Circuit Breakers, Gas	115kV	EA	2	1994
Substation Circuit Breakers, Vacuum	13-26kV	EA	16	1994
Substation Circuit Breakers, Vacuum	13-26kV	EA	8	2002
Substation Disconnect Switches	161kV	EA	2	1994
Substation Reactors & Resistors	13-26kV	EA	2	1994
Substation Lightning Arrestors	161kV	EA	6	1994
Substation Batteries		KAH	.23	1994
Substation Battery Chargers		EA	2	1994
<b>Substation C</b>				
Substation Transformer, Power	110kV	MVA	15	1994
Substation Transformer, PT	13-26kV	EA	6	1994
Substation Capacitors	13-26kV	MVAR	7.2	1994
Substation Circuit Breakers, Gas	115kV	EA	2	1994
Substation Circuit Breakers, Vacuum	13-26kV	EA	16	1994
Substation Disconnect Switches	161kV	EA	2	1994
Substation Reactors & Resistors	13-26kV	EA	2	1994
Substation Lightning Arrestors	161kV	EA	6	1994
Substation Batteries		KAH	.23	1994
Substation Battery Chargers		EA	2	1994
<b>DGMC Substation</b>				
Substation Transformer, Power	110kV	MVA	7.5	1989
Substation Transformer, Power	13kV	MVA	7.5	1989
Substation Transformer, PT	13-26kV	EA	3	1989
Substation Circuit Breakers, Vacuum	13-26kV	EA	3	1989
Substation Disconnect Switches	161kV	EA	1	1989
Substation Lightning Arrestors	161kV	EA	3	1989
Substation Insulators, Pedestal		EA	24	1989
Substation Batteries		KAH	.115	1989
Substation Battery Chargers		EA	1	1989
Power Fuses	161kV	EA	3	1989
<b>Transformers - Pole Mount</b>				
Oil Filled, 1PH	25 kVA	EA	201	1984
Oil Filled, 1PH	37.5 kVA	EA	39	1984
Oil Filled, 1PH	50 kVA	EA	73	1984

Component	Size	Unit	Quantity	Approximate Year of Construction
Oil Filled, 1PH	75 kVA	EA	38	1984
Oil Filled, 1PH	100 kVA	EA	39	1984
Oil Filled, 1PH	150 kVA	EA	6	1984
<b>Transformers - Pad Mount</b>				
Oil Filled, 3PH	37.5 kVA	EA	4	1984
Oil Filled, 3PH	75 kVA	EA	16	1984
Oil Filled, 3PH	150 kVA	EA	23	1984
Oil Filled, 3PH	225 kVA	EA	11	1984
Oil Filled, 3PH	300 kVA	EA	21	1984
Oil Filled, 3PH	500 kVA	EA	4	1984
Oil Filled, 3PH	750 kVA	EA	7	1984
Oil Filled, 3PH	1000 kVA	EA	2	1984
Oil Filled, 3PH	1500 kVA	EA	4	1984
Oil Filled, 3PH	2000 kVA	EA	1	1984
<b>Additional Inventory</b>				
Utility Vaults	6x10	EA	201	1979
Utility Vaults	6x10	EA	41	1995
Utility Vaults	8x14	EA	50	1979
Utility Vaults	8x14	EA	14	1995
Disconnect Switches, Gang Operated	115 kV	EA	3	1989
Medium Voltage Switchgear, Load Int. Switch	13.8 kV	EA	12	1984
Gang Operated Disconnect Switches		EA	23	1984
Guys, Anchors, and Hardware		EA	55	1979
Guys, Anchors, and Hardware		EA	30	1984
Guys, Anchors, and Hardware		EA	36	1989
Lightning Arresters		EA	444	1984
Meter 3PH	4W	EA	67	1984
Pole Arms	6'	EA	80	1979
Pole Arms	6'	EA	320	1984
Pole Arms	6'	EA	80	1989
Wood Poles	50'	EA	95	1979
Wood Poles	50'	EA	287	1984
Wood Poles	65'	EA	80	1989
Primary Conductor Deadends		EA	40	1979
Primary Conductor Deadends		EA	17	1984
Primary Conductor Deadends		EA	16	1989
Concrete, Heavy Industrial, Reinforced Slab	6"	SF	3,348	1984
Concrete Slab		SF	3,000	1989
Concrete Slab		SF	6,800	1994
Concrete Block Wall	8"	SF	8,800	1989
Concrete Block Wall	8"	SF	6,080	1994
Structural Steel	W8x10	LF	1,500	1989
Structural Steel	W8x10	LF	600	1994
Concrete Foundation		CY	150	1989
Concrete Foundation		CY	80	1994
Voltage Regulators	13-26 kV	EA	3	1989
Voltage Regulators	13-26 kV	EA	4	1994

Component	Size	Unit	Quantity	Approximate Year of Construction
Terminator, Cable, Indoor	15 kV	EA	600	1979
Terminator, Cable, Indoor	15 kV	EA	18	2001
Terminator, Cable, Indoor	15 kV	EA	60	1995
Terminator, Cable, Outdoor	15 kV	EA	45	1979
Generator	500 kW	EA	1	1988
Generator	750 kW	EA	1	1988
Concrete Slab		SF	220	1988
Concrete Slab		SF	252	1988
Transformer Grounding Rods		EA	93	1984
Transformer Grounding Rods		EA	4	1989
Transformer Grounding Rods		EA	4	1994
Transformer Grounding Rods		EA	2	2002
Grounding Rods		EA	454	1984
Grounding Rods		EA	23	1989
Grounding Rods		EA	12	1994
<b>Golf Course</b>				
Wood Poles	50	FT	37	1988
Transformer, Dry Mount, 1PH, Pole Mount	15 kVA	EA	1	1988
Transformer, Dry Mount, 1PH, Pole Mount	37.5 kVA	EA	4	1988
Transformer, Oil Filled, 3PH, Pad Mount	150 kVA	EA	1	1988
Transformer, Oil Filled, 3PH, Pad Mount	225 kVA	EA	1	1988
Transformer, Oil Filled, 3PH, Pad Mount	300 kVA	EA	3	1988
Pole Mounted Fuse Cutouts		EA	21	1988
Gang Operated Air Switch		EA	1	1988
Cable, UG, Direct Bury	2/0	SCLF	2,100	1988
Cable, UG, Direct Bury	1/0	SCLF	700	1988
Concrete Slab		SF	18	1988
Transformer Grounding Rods		EA	5	1988

Notes:

EA = each	kVA = kilovolt ampere
kV = kilovolt	SCLF = single conductor linear feet
PH = phase	W = watt
UG = underground	ACSR = aluminum-conducting-steel-reinforced
kcmil = thousand circuit mils	PVC = polyvinyl chloride
CT = current transformer	PT = potential transformer
MVA = mega volt ampere	MVAR = mega volt ampere reactive
KAH = kiloampere hour	MV = medium voltage
Int. = interrupter	CY = cubic yards
SF = square feet	kW = kilowatt

### J1.2.2 Electric Distribution System Non-Fixed Equipment and Specialized Tools

Table 2 and Table 3 would ordinarily list excessed ancillary equipment (spare parts) and specialized vehicles and tools potentially available for inclusion in the purchase. However, Air Mobility Command has determined that such items would be redistributed to other AF installations and thus not available for purchase. Therefore, Tables 2 and 3 contain no items.

TABLE 2  
 Spare Parts  
*Electric Distribution System – Travis AFB*

Quantity	Item	Description	Remarks
None			

TABLE 3  
 Specialized Vehicles and Tools  
*Electric Distribution System – Travis AFB*

Description	Quantity	Location	Maker
None			

### J1.2.3 Electric Distribution System Manuals, and Records Drawings,

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

TABLE 4  
 Manuals, Drawings, and Records  
*Electric Distribution System – Travis AFB*

Quantity	Item	Description	Remarks
1	Drawing Set	Comprehensive Plan, Tab G-4, 1995	Multiple sheets
1	Study	Short Circuit Study; 1-line diagrams, 2003	Completed through AFCESA; includes “Easy Power” software data files.
1	Program Review	Electrical Infrastructure Program Review, 2003	Completed by HQ AMC
1	Listing	Electric Meters	Shows building served.
1	Manual	Transformer Manual	
1	Manual	Substation Manual	

## J1.3 Specific Service Requirements

The service requirements for the Travis AFB electric distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Travis AFB electric 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.

- The Contractor will be required to mark his own utilities and will be responsible for initiating, officiating, and tracking digging permits for his own utilities. The Contractor will provide not less than 5 and not more than 15 working days notice of any needed

excavations to Civil Engineering and to said Utilities Privatization Administrative Contracting Officer so the location of underground utilities may be located and marked by the applicable utility owner.

- The Contractor shall enter into a Memorandum of Understanding (MOU) with the Base Fire Department for fire protection of all facilities included in the purchase of the utility. The MOU shall be completed during the transition period and a copy provided to the Contracting Officer.
- Because of the critical nature of Travis AFB mission requirements, response to power outages must be immediate. The Contractor must have a knowledgeable person on scene within 30 minutes followed by repair crews within 90 minutes (24 hours a day / 7 days a week) after notification.
- Special lock-out/tag-out procedures must be developed/implemented for Substation C in light of the fact that two of the feeders are excluded from the HP initiative. Since two entities could own and operate these feeders, and will share access to the substation, these special procedures are mandatory.
- Special lock-out/tag-out and switching procedures must be developed for the two diesel generators located in Building 221 and 916. These special procedures are necessary since these generators produce primary voltage and are switched upstream of facility transformers.

## J1.4 Current Service Arrangement

- Electricity is purchased from WAPA and is delivered by a 60-kilovolt (kV) PG&E transmission line.
- Usage fluctuations are driven primarily by cooling loads and have considerable variation. In examining monthly consumption figures for fiscal years (FY) 2001 and 2002, the low monthly figure was 7,044,803 kilowatt hours (KWH) in July 2001, while the high figure was 12,552,239 KWH in September 2002. Peak demand does not vary significantly throughout the year with the highest monthly peak demand at approximately 12.6 MW and the lowest at approximately 11.1 MW.
- There are apparently no contentious Certificate of Public Convenience and Necessity (CPCN) issues. Travis does not lie within the boundaries of any municipality; as only municipalities may issue franchises, Travis AFB is by default not subject to any franchise territory for the electric utility. Travis AFB is bordered by distribution territory over which PG&E holds a CPCN.

## J1.5 Secondary Metering

### J1.5.1 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 in accordance with (IAW) Paragraph C.3.3 and J1.6 below:

**TABLE 5**  
 Existing Secondary Meters  
*Electric Distribution System – Travis AFB*

<b>Building No.</b>	<b>Facility Function</b>	<b>Building No.</b>	<b>Facility Function</b>
787	BLOOD BANK	875	WAREHOUSE
80 NORTH	MUSEUM	771	AERO CLUB
51		772	AERO CLUB
52		789	FISHER HOUSE
181		778	VA CLINIC
185		RODEO GROUNDS (MWR)	
187		648	BX
228	NEW ADDITION	603	CAR WASH
237		665	CHILD CARE
179	FLIGHT SIMULATOR	601 (1)	FAMILY CAMP
146	FTD FLIGHT TRAINING	601 (2)	FAMILY CAMP
155	FLIGHT SIMULATOR	601 (3)	FAMILY CAMP
143	PAINT BOOTH	668	CHILD CARE
660	FAMILY SUPPORT	650	MINI MALL
690	THRIFT SHOP	659	CREDIT UNION
549 - OUTSIDE		7690	CHILD CARE
549 - INSIDE		480	CONFERENCE CENTER
921	APS	400	CO-LOCATED CLUB
927		434	NEW GYM
833 - PRIME BEEF		382	BOILER PLANT MAIN
881		1301	DINING HALL
875	OFFICE	1349	MECHANICAL ROOM*
1359		685	BURGER KING
350	ARMY ADMIN	550**	FMS
81	BX NORTH	803	60 EMS - NORTH
50		819*	
P 31	COMMAND POST	836	
214	BOWLING ALLEY - WEST	864	
214	BOWLING ALLEY - EAST	971	HAZARDOUS STOR
226 - OUTSIDE		1171	NAVY
226 - INSIDE		1177	NAVY
172	SHOPPETTE	1846	STABLE
170	BX SERVICE STATION	836	MWR
680	COMMISSARY		

### J1.5.2 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 J1.6 below. New meters and replacement meters will be of a type that will transmit meter readings to a central display.

**TABLE 6**  
 New Secondary Meters  
*Electric Distribution System – Travis AFB*

<b>Building No.</b>	<b>Facility Function</b>	<b>Building No.</b>	<b>Facility Function</b>
1 P-1	WAREHOUSE	680	COMMISSARY
1	SQ OPS		BURGER KING
1001	TST CELL		MAIN BX
1002	TST CELL		SHP ACFT GEN PURPOSE
1022	SHP JET	7690	CHILD CARE CENTER 3
1032	SHOP AM ORGL	7763	YOUTH CENTER
1171	TACAMO MAINTENANCE	778	VETERANS ADMIN
1174	TACAMO QA	787	ARMED SERVICE BLOOD LAB
1175	TACAMO ALERT FAC	790	VETERANS ADMIN
1176	TACAMO BLUE ROOM	800	GEN PURP FACILITY
1177	TACAMO BOEING WH	802	SHP, AVIONICS
1178	TACAMO SUGAR 2	803	SHP ACFT GEN PURPOSE
1179	TACAMO BOEING BLDG	808	MAINT DOCK, FL SYS
1180	TACAMO SUGAR 1	809	MAINT DOCK, LA
1201	KITCHEN, IN FLT	81	EXCH ADMIN
1201	TRML, DEF MICROELEC	810	MAINT DOCK, LA
1201	TRML, FLT SERVICE	810	SHP AM ORGL
1212	SQ OPS (LIFE SUPPORT)	811	ACFT COR CON
1348	BX AMUSEMENT CENTER	817	SHP, AVIONICS
16	SHP JET ENG MNT	818	HG MAINT
163	NAVY ROICC	818	SHP ACFT GEN PURP
170	SERVICE STATION	83	SQ OPS
171	SERVICE STATION ANNEX	836	SQ OPS
172	SHOPETTE	839	WHSE SUP & EQUIP BSE
18	ACFT COR CON	840	WHSE SUP & EQUIP BSE
1846	SADDLE CLUB	841	MAIN DOCK, LA
1876	CONSOLIDATED POOL	842	SHP AM ORGL
1902	TRML, FLT SVC	843	SHP AM ORGL
1905	INCINERATOR, 60 APS	844	SHP AM ORGL
1919	TST CELL	845	SHP ACFT GEN PURP
1928	FAMILY CAMP	846	SHP ACFT GEN PURP
2	SHP AM ORGL	863	MWR SUPPLY
2011	GOLF COURSE MAINT	863	OUTDOOR REC
205	223 <sup>RD</sup> INFANTRY	864	SHP AM ORGL
205	AIRMAN LEADERSHIP SCHOOL	869	SKATING RINK
21	SHP AM ORGL	888	BSEWHSE SUP & EQUIP
212	SNACK BAR	8905	GOQ
214	BOWLING CENTER	8941	GOQ
22	WHSE SUP & EQUIP BSE	8942	GOQ
223	AUTO HOBBY SHOP STORAGE	9	SHP, AM ORGL
224	PAINT BOOTH	904	SHP ASE STOR FAC
231	POOL CL2 BLDG	919	VEH MAINT SHOP
232	BATHHOUSE	933	DEFENSE COURIER
241	SQ OPS	934	DEFENSE COURIER

<b>Building No.</b>	<b>Facility Function</b>	<b>Building No.</b>	<b>Facility Function</b>
242	SQ OPS	970	TRML, AIR FRT
243	SQ OPS	971	TRML, AIR FRT
247	DINING HALL	977	NAVY MATERIAL TRNS
248	SQ OPS	977	TRML, AIR FRT
250	60AMW XP	977	TRML, OFFICE
250	ROYAL AIR FORCE	977	TRML, SUBMARINE
250	WAGE & SALARY WESTERN REG	979	TRML, AIR FRT
254	SQ OPS	981	VEH MAINT SHP
3	AMERICAN EATERY	1304	
3	BARBER SHOP	1305	
3	BUDGET RENTAL CAR	1306	
3	DAPS	1307	
3	TRML, AIR PSGR	1308	
31	WPN SYS MGT FCLT	1309	
350	3D BDE, 91 <sup>ST</sup> DIVISION, ARMY	1310	
376	SQ OPS	1327	
377	SHP ASE STOR FCLT	1328	
380B	SQ OPS	1329	
381	DEFENSE SECURITY SRVC	1330	
381	HUVA-A-JAVA-DO	1331	
383	TRICARE	1332	
4	TRML, AIR PSGR	1333	
400	CO-LOCATED CLUB	1334	
405	MWR ADMIN	1350	
41	AGE SHP STOR FCLT	1351	
42	AGE WASH RACK	1352	
434	GYMNASIUM	1353	
480	GODFATHER'S PIZZA	1354	
50	HQ GROUP	1355	
525	SHP SURVER EQUIPMENT	1356	
543	MADIGAN ARMY MED CNTR	2001	
549		2002	
551	SHP ACFT GENERAL PURPOSE	2003	
557	SQ OPS	2004	
558	SQ OPS	2005	
563	STORAGE	2012	
601	FAMILY CAMP SERVICE CENTER	2013	
603	CAR WASH	771	AERO CLUB
650	BASE EXCHANGE RETAIL	772	AERO CLUB
650	POST OFFICE	CG 5582	
650	TEEN CENTER	CG 6223	
659	CREDIT UNION	CG 8986	

## J1.6 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 25<sup>th</sup> of each month for the previous month. Invoices shall be submitted to:

*Position:* Energy Manager  
*Address:* 60<sup>th</sup> CES/CEOE  
241 V Street, Building 878  
Travis AFB, CA 94535-5000  
*Phone number:* (707) 424-2650

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 25<sup>th</sup> of each month for the previous month. Outage reports shall be submitted to:

*Position:* Energy Manager  
*Address:* 60<sup>th</sup> CES/CEOE  
241 V Street, Building 878  
Travis AFB, CA 94535-5000  
*Phone number:* (707) 424-2650

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 15<sup>th</sup> of each month for the previous month. Meter reading reports shall be submitted to:

*Position:* Energy Manager  
*Address:* 60<sup>th</sup> CES/CEOE  
241 V Street, Building 878  
Travis AFB, CA 94535-5000  
*Phone number:* (707) 424-2650

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 25<sup>th</sup> of each month for the previous month. System efficiency reports shall be submitted to:

*Position:* Energy Manager  
*Address:* 60<sup>th</sup> CES/CEOE  
241 V Street, Building 878  
Travis AFB, CA 94535-5000  
*Phone number:* (707) 424-2650

## J1.7 Energy Saving Projects

IAW Paragraph C.3, Requirement, there are currently no demand side management (DSM) initiatives underway at Travis AFB. Current Energy Saving Performance Contract (ESPC)

arrangements deal only with interior lighting and HVAC loads and have virtually no effect on the electrical distribution system.

## J1.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Travis AFB boundaries and the boundaries of Travis AFB geographically separated units (GSUs).

## J1.9 Off-Installation Sites

Air Force-owned, off-Installation electrical components included in this privatization package are located only on the Cypress Lakes Golf Course site as described in Paragraph J1.2.1.1. Other off-Installation sites have no electric system components included.

## J1.10 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 – Travis AFB

Location	Description
Provide electric service to lift stations located in the housing area. (Facility #7270, #9399).	New circuit will need to be installed from Substation C. Remove the current service connection to Housing electric circuits.
Provide electric service to the Base entry gate near Arnold Estates.	New service will require an extension of the feeder running parallel to Burgan Avenue. Remove the current service connection to Housing electric circuits.

## J1.11 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 Travis AFB 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 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  
*Electric Distribution System – Travis AFB*

<b>Project Location</b>	<b>Project Description</b>
Substation B	Replace the 5 kv circuits and transformers to permit operation at 12.47 kv.
Substation A	Convert the substation for 12.47 kv distribution.