ATTACHMENT J1

March ARB Electric Distribution System

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J1.1 March ARB Overview

J1.1.1 History

The story of March Field began at a time when the United States was rushing to build up its military forces in anticipation of an entry into World War I. News from the front in Europe had not been good as it was explained for those at home the horror and boundless human misery associated with stalemated trench warfare. Several European news sources reported significant German efforts at this time to build a fleet of flying machines that could well alter the nature of modern warfare and possibly carry the war to the skies. In response, Congressional appropriations in early 1917 in the neighborhood of $640 million attempted to back the plans of General George O. Squier, the Army's chief signal officer, to "put the Yankee punch into the war by building an army in the air." At the same time the War Department announced its intentions to build several new military installations. Efforts by Mr. Frank Miller, then owner of the Mission Inn in Riverside, Hiram Johnson, and other California notables succeeded in gaining War Department approval to construct an airfield at Alessandro Field located near Riverside, an airstrip used by aviators from Rockwell Field on cross-country flights from San Diego. A parade in Riverside on 9 February 1918 gave notice than an army flying field would soon be coming to Riverside.

The Army wasted no time in establishing a new airfield. On 26 February 1918, a team began excavating the building foundations at Alessandro. On 20 March 1918, Alessandro Flying Training Field became March Field, named in honor of Second Lieutenant Peyton C. March, Jr., son of the Army Chief of Staff, who had been killed in a flying accident in Texas the previous month. By late April 1918, enough progress had been made in the construction of the new field to allow the arrival of the first troops. Within a record 60 days, the grain stubble-covered plain of Moreno Valley had been partially transformed to include 12 hangars, six barracks equipped for 150 men each, mess halls, a machine shop, a post exchange, a hospital, a supply depot, an aero repair building, bachelor officer's quarters, and a residence for the commanding officer. On May 15, when the first JN-4D "Jenny" took off, March Field seemed to have come into its own as a training installation. The signing of the armistice on 11 November 1918, did not halt training at March Field initially but by 1921, the decision had been made to phase down all activities at the new base in accordance with sharply reduced military budgets. In April 1923, March Field closed its doors with one sergeant left as caretaker.

In July 1926, Congress created the Army Air Corps and approved the Army's five-year plan which called for an expansion in pilot training and the activation of tactical units. Accordingly, funds were appropriated for the reopening of March Field in March of 1927. As March Field began to take on the appearance of a permanent military installation, the Base's basic mission changed. In 1931, March Field became an operational base. Before the end of the year, the 7th Bomb Group brought its Condor B-2 and Keystone B-4 bombers to the Base.

In the decade before World War II, March Field took on much of its current appearance. The completion of the first phase of permanent buildings in 1934 added to the scenic quality of the Base. This was also a period of outstanding achievements in test flights and other contributions to the new science of aviation.

The attack on Pearl Harbor in December of 1941 quickly brought March Field back into the business of training aircrews. Throughout the war, many bombardment groups performed their final training at March before embarking for duty in the Pacific. During this period the Base doubled in area and, at the zenith of the war effort, supported approximately 75,000 troops. At the same time, the Government procured a similar-sized tract west of the San Diego highway that bordered the Base and established Camp Hahn as an anti-aircraft artillery training facility. It supported 85,000 troops at the height of its activity. In 1946, Camp Hahn became a part of March's real estate holding when operations at the Base returned to a more normal setting.

After the war, March reverted to its operational role and became a Tactical Air Command base. The main unit, the famed 1st Fighter Wing, brought the first jet aircraft, the F-80, to the Base. This deviation from the traditional bombardment training and operations functions was short-lived. In 1949, March became a part of the relatively new Strategic Air Command (SAC). Headquarters Fifteenth Air Force, along with the 33d Communications Squadron, moved to March from Colorado Springs in the same year. Also in 1949, the 22nd Bombardment Wing moved from Smoky Hill Air Force Base (AFB), Kansas to March. Thereafter, these three units remained as dominant features of Base activities.

From 1949 to 1953, the B-29 Superfortresses dominated the flightline at March AFB. For four months, July through October, the 22d saw action over Korea and in this brief period, contributed to the elimination of all strategic enemy targets. Involvement in the Korean Conflict had no sooner ended when the wing converted from the huge propeller-driven B-29s to the sleek B-47 jet bombers and their supporting tankers, the KC-97s. The KC-97s belonging to the 17th and 22d Air Refueling Squadrons represented an amazing jump in technology. Planes and crews from March began breaking altitude and distance records. The new refueling planes introduced a significant advance in operational range. Overall operational capability could now be measured in global terms. In 1960, the first Reserve unit was assigned to March, flying C-119s. The end of the 1960s saw March AFB preparing to exchange its B-47s and KC-97s for updated bombers and tankers. Increasing international tensions in Europe and elsewhere by 16 September 1963 brought March its first B-52B bomber, "The City of Riverside." Soon 15 more of the giant bombers appeared on the flightline along with new KC-135 jet "Stratotankers." March's first KC-135, "The Mission Bell," arrived on 4 October 1963. For the next 20 years these airplanes would dominate the skies as the 22d Bombardment Wing played a feature role in the SAC's mission.

During this period both tankers and bombers stood alert at March as part of America's nuclear deterrent force. The might of March's bombers and tankers, however, were soon to be used in quite another scenario. During the conflict in Southeast Asia, the 22d Bombardment Wing deployed its planes several times and March crews learned well the meaning behind such names as Young Tiger, Rolling Thunder, Arc Light, and Linebacker II. In these troubled years the Base served as a logistical springboard for supplies and equipment en route to the Pacific. Near the end of the conflict, March operated as one of the reception centers for returning prisoners of war.

Following the end of hostilities in Southeast Asia, the 22d returned to its duties as an integral part of the SAC. For the next 18 years until 1982, March effectively supported America's defensive posture. One of the post-Vietnam adjustments brought the retirement of the wing's last B-52 on 9 November 1982. This event signaled yet another era for March AFB and for the 22d. The 22d Bombardment Wing, so long a key ingredient in March's long history, would become an air refueling wing with the new KC-10 tanker. The new tankers were able to accomplish considerably more than the KC-135s. Within months after the first KC-10 arrived at March on 11 August 1982, crews quickly realized the ability of the new aircraft to carry cargo and passengers as well as impressive fuel loads over long distances. Air refueling for March AFB had entered a new age. The California Air National Guard also arrived in 1982, bringing with them the F-4Cs.

Beginning in the early 1980s, the KC-10 became the vehicle carrying March AFB into a new technological epoch. The large KC-10s, with their versatility and dependability, again gave the Base a featured part in America's efforts to retain a strong and flexible military air arm. The utter importance of the KC-10s in conventional operations became a particularly apparent during Desert Shield and Desert Storm where their outstanding service contributed measurably to the success of American forces in the defense of Saudi Arabia and the liberation of Kuwait.

During the 1980s and early 1990s, in effort to comply with Air Installation Compatibility Use Zone (AICUZ) criteria, March acquired several, relatively small parcels of land off the south side of the Base. These were the last changes to the Base "footprint" until the substantial changes driven by the Base Realignment and Closure (BRAC) decisions in the mid 1990s.

In 1993, March AFB was selected for realignment. In August 1993, the 445th Airlift Wing transferred to March from Norton AFB, California. On 3 January 1994, the 22d Air Refueling Wing was transferred to McConnell AFB, Kansas, and the 722d Air Refueling Wing stood up at March. As part of the Air Force's realignment and transition, March's two Reserve units, the 445th Airlift Wing and the 452d Air refueling Wing, were deactivated and their personnel and equipment joined under the 452d Air Mobility Wing on 1 April 1994. On 1 April 1996, March officially became March Air Reserve Base (ARB).

From the dusty stubble that once was Alessandro Flying Strip to today, March, for over 85 years, has been a key element in the advance of aviation and in the growth of the modern Air Force.

J1.1.2 Current Mission

The Air Force Reserve Command (AFRC) supports the Air Force mission to defend the United States through control and exploitation of air and space by providing global reach and global power. The AFRC plays an integral role in the day-to-day Air Force mission and is not a force held in reserve for possible war or contingency operations. The host command is the 452d Air Mobility Wing, the first established air mobility wing in the Air Force Reserve. The Base's primary associate units are the 4th Air Force, 163d Air Refueling Wing, 144th Fighter Group, and the 4th Combat Camera Squadron. Authorized aircraft for this Installation are the C-141 "Starlifter" and the KC-135E "Stratotanker." The 144th FW (Det 1) flys the F-16 aircraft. Other associate units include:

- Armed Forces Radio and Television (AFRTS) Broadcast Center
- Defense Visual Information Center
- Air Force Audit Agency Financial and Support Audit Directorate
- United States Customs Service Domestic Air Interdiction Coordination Center (DAICC)
- United States Customs Service Riverside Aviation Unit (RAU)
- Defense Commissary Agency (DeCA)
- Army Air Force Exchange Service (AAFES)
- Defense Reutilization and Marketing Office (DRMO)
- Army Corps of Engineers
- 63rd Regional Support Command (Army)
- Naval and Marine Corps Reserve Center
- Air Force Office of Special Investigation (OSI)
- Defense Printing Service (DAPs)
- 362nd Air Force Recruiting Squadron
- 144th Fighter Wing (ANG), Det. 1

J1.1.3 Physical Assets and Population

March ARB, located in the City of Moreno Valley in Riverside County, California, is an AFRC installation. March ARB occupies 2,300 acres with runway length totaling 13,300 feet. There are approximately 166 AFRC buildings on Base: 477,906 square feet administrative, 677,258 square feet industrial, and 274,406 square feet lodging. The total population of the Base is approximately 8,100 including military personnel, civilian employees and support personnel, reservists, and dependents. March ARB has an annual payroll of approximately $150 million (combined military and civilian), and contributes significantly to the local economy through civilian employment, contracting, and purchases from local businesses with total annual expenditures of $77 million. There are an estimated 2,357 indirect jobs created by the Base with an estimated value of $96 million. The total economic impact created by the Base is estimated to be $324 million.

J1.2 Electric Distribution System Description

J1.2.1 Electric Distribution System Fixed Equipment Inventory

The March ARB electric distribution system consists of 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, street lighting fixtures, 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.
- Traffic lighting and circuitry.

J1.2.1.1 Description

In 1996, as a consequence of Base Realignment and Closure (BRAC) actions, the physical area of March ARB was reduced dramatically. A large section of the Base east of Interstate 215 (I-215) (northeast corner) and nearly all of the area west of I-215 was "excessed" and placed under the control of the Air Force Base Conversion Agency (AFBCA); the agency has since been redesignated the Air Force Real Property Agency (AFRPA). The remaining March ARB territory is referred to as the cantonment area; the excessed parcels are referred to as the non-cantonment area. After taking control of the non-cantonment area, the AFRPA then, in turn, began the process of transferring control of the non-cantonment area to the Joint Powers Authority (JPA), the local redevelopment authority. The existing utilities in the non-cantonment area are currently under various stages of transfer from March ARB to the AFRPA and JPA. Final disposition of the excessed property is an ongoing evolutionary process. There are also continuing negotiations, driven by recent mission changes, between March ARB, the AFRPA, and the JPA over property and facilities for which the Government would like to regain ownership. Similarly, the JPA would be interested in acquiring the federally retained "islands" west of I-215. A summation of the latest developments will be available in the technical library.

Southern California Edison (SCE) currently provides electrical power to March ARB through Tanker Substation (also known as Substation 1) with a single, three-phase, 115 kilovolt (kV) transmission line. Tanker Substation is located on the north edge of the Cantonment area. March ARB owns this substation with the exception of the 115 KV primary side of the substation. The Air Force inventory includes one 20-megavolt ampere (MVA) transformer as well as medium voltage switchgear. The 115 kV transmission voltage is stepped down to 13.8/7.9 kV. Distribution feeders 2, 3, 4, 5, 6, 7, 8, 9, 14, 15, and 23 originate from Tanker Substation and distribute power throughout the Base by a combination of overhead and underground circuits.

Main Substation (also known as Substation 2) is currently maintained in a backup mode. SCE can furnish power to the Base through this substation using two 34.5 kV sub-transmission feeders on wood pole structures. The power supply is stepped down to 13.8/7.9 kV wye-connected voltages. The Base owns transformers amounting to 15 MVA and an outdoor enclosed metal-clad switchgear assembly with circuit breakers that provide control and protection for contingency distribution circuits 5, 6, 14, 16, and 23.

All the transformers on the Base are polychlorinated biphenyl (PCB)-free.

A significant power outage in the cantonment/non-cantonment areas during the month of April 2004 prompted the Installation to rethink the proposed modification of circuitry

and develop the following statement of work (SOW) in effort to segregate the systems. The net effect would be to use Circuits 2, 7, and 9 solely for non-cantonment electric service, while Circuits 3 and 8 would be used to provide electric service to those Government-retained facilities located in the non-cantonment area. The SOW may be modified somewhat as the design is finalized. Precise execution dates are not available. Please note that this SOW is not a part of the Utilities Privatization program, but is included for Offerors' information only.

Statement of Work

I. For work within the March ARB cantonment area:

a. From Substation Number Two (Main Substation 34.5 KV-13.8 KV) extend Circuit No. 6 (aerial 13.8 KV service) to serve the Motor Pool Facility (Bldg 2500) and Army heavy equipment parking lot (Bldg 2480 and 2485).

b. From Building No. 225 extend existing 13.8 KV distribution Circuit No. 23 (Circuit No. 23) with new underground 13.8 KV service to serve Building No. 238 and 239.

c. From Building No. 468, extend Circuit No. 5 with new underground 13.8 KV service to serve Building No. 176.

d. Disconnect MJPA Global Port (the Old Alert Facility) from Circuit No. 23.

e. At Substation Number One (Tanker Substation 115 KV - 13.8 KV), disconnect Circuit No. 7 feeder at the existing 13.8 KV bus. (Note: All existing Air Force load on Circuit No. 7 will eventually be served by the local utility provider).

f. At Substation No. One (Tanker Substation 115 KV -13.8 KV), disconnect Circuit No. 2 and Circuit No. 9 feeders from the existing 13.8 KV bus. (Note: Circuit No. 2 and Circuit No. 9 will eventually be served by the local utility provider).

g. At Substation Number 2 (March Main Substation, 34.5 KV - 13.8 KV), remove existing abandoned transformer T2 (4 each, 2.5 MVA, 34.5 KV -13.8 KV), existing abandoned transformer T3 (1 each, 5 MVA, 34.5 KV -13.8 KV) and existing abandoned transformer T4 (1 each, 3 MVA, 34.5 KV-4.16 KV) along with their associated structures, disconnect switches, bus, insulators, lightning arresters, and switchgears. The existing de-activated transformer, T1 (10 MVA, 34.5 KV -13.8 KV) shall re-main. (Note: This work is optional only if budget permits.).

h. At Substation No. 2 (March Main Substation, 34.5 KV - 13.8 KV), install one transformer TA, 34.5 KV-13.8 KV, 15 MVA, along with associated structures, disconnect switches, bus duct, insulators, lightning arresters, and switchgear. Install tie circuit between existing transformer T1 secondary 13.8 KV bus to the new transformer TA secondary 13.8 KV bus with a tie breaker. The tie breaker shall normally be open. Transformer T1 is to be used as a back-up transformer for new transformer TA. (Note: This work is optional only if budget permits.)

II. For work outside the March ARB cantonment area:

a. Extend Circuit No. 2 with new aerial 13.8 KV service to serve Building Nos. 2996 and 2998. Disconnect these buildings from Circuit No. 8.

b. Extend Circuit No. 2 with new aerial 13.8 KV service to serve Building Nos. 2604, 2605, 2606 and 2608. Disconnect these buildings from Circuit No. 8.

c. Extend Circuit No. 2 with new aerial 13.8 KV service to serve Building Nos. 2630 and 2670. Disconnect these buildings from Circuit No. 8.

d. Extend Circuit No. 2 with new aerial 13.8 KV service to serve Building No. 2620. Disconnect this building from Circuit No. 8.

III. Action required from the local utility provider:

a. The local utility provider will be required to convert an existing un-energized 34.5 KV distribution circuit, routing along Meyer Drive, to a 12 KV distribution circuit to serve the residential housing units in the Green Acre (Circuit No. 2) and Circuit No. 9.

b. Extend existing 12 KV circuit to serve March Join Power Authority (MJPA) Global Port (the Old Alert Facility).

c. Extend existing 12 KV circuit to serve Bldg 7046 (DRMO, an Air Force facility). RMO will be a customer to be billed by the local utility provider.

d. Extend existing 12 KV circuit to serve Building Nos. 6002 (Firing Range, an Air Force facility). The Firing Range will be a customer to be billed by local utility provider.

e. Extend existing 12 KV circuit to serve Waste Water Treatment Plant (a Western Municipal Water District facility).

f. Extend existing 12 KV circuit to serve Building No. 6702 (Chapel, a MJPA facility).

g. Extend existing 12 KV circuit to serve Riverside Sheriff Training Facility.

h. Extend existing 12 KV circuit to serve the Club House located at the Air Force Village West Road.

J1.2.1.2 Inventory

Table 1 provides a general listing of the major electric distribution system fixed assets for the March ARB electric distribution system included in the sale.

TABLE 1
Fixed Inventory
Electric Distribution System – March ARB

Component	Size	Unit	Quantity	Approximate Year of Construction
Overhead				
Cable, Aluminum ACSR	#2	SCLF	17,127	1980
Cable, Aluminum ACSR	#4	SCLF	4,776	1980
Cable, Aluminum ACSR	#6	SCLF	2,364	1999
Cable, Aluminum ACSR	1/0	SCLF	648	1980
Cable, Aluminum ACSR	2/0	SCLF	18,488	1980
Cable, Aluminum ACSR	4/0	SCLF	48,139	1980
Cable, Aluminum ACSR	4/0	SCLF	43,256	2004
Cable, Aluminum ACSR	266.8 kcmil	SCLF	27,873	1980

Component	Size	Unit	Quantity	Approximate Year of Construction
Cable, Copper	#6	SCLF	27,129	1980
Cable, Copper	1/0	SCLF	11,874	1980
Cable, Copper	4/0	SCLF	27,549	1980
Underground				
Conductor, Copper Shielded	#1	SCLF	1,792	1978
Conductor, Copper Shielded	#2	SCLF	1,070	1978
Conductor, Copper Shielded	#4	SCLF	8,656	1978
Conductor, Copper Shielded	4/0	SCLF	21,238	1980
Conductor, Copper Shielded	4/0	SCLF	1,236	2004
Conductor, Copper Shielded	1/0	SCLF	21,580	1978
Conductor, Copper 600V	#1	SCLF	896	1978
Conductor, Copper 600V	#2	SCLF	534	1978
Conductor, Copper 600V	#4	SCLF	6,368	1978
Conductor, Copper 600V	4/0	SCLF	10,618	1980
Conductor, Copper 600V	1/0	SCLF	10,790	1978
Conductor, Copper 600V	1/0	SCLF	560	2004
Substation Components				
Static Capacitors	13-26 kV	MVAR	3	1993
Circuit Breakers, Gas	161 kV	EA	1	1993
Circuit Breakers, Air	13-26 kV	EA	8	1985
Circuit Breakers, Vacuum	13-26 kV	EA	13	1985
Circuit Breakers, Vacuum	13-26 kV	EA	12	1993
Circuit Breakers, Oil	46 kV	EA	1	1985
Control Batteries		KAH	0.35	1985
Control Batteries		KAH	0.35	1993
Battery Chargers		EA	1	1985
Battery Chargers		EA	1	1993
Gang Operated, Disconnect Switches	13-26 kV	EA	9	1985
Gang Operated, Disconnect Switches	46 kV	EA	5	1985
Gang Operated, Disconnect Switches	161 kV	EA	2	1993
Single Phase, Disconnect Switches	13-26 kV	EA	42	1985
Single Phase, Disconnect Switches	46 kV	EA	6	1985
Insulators, Pedestal		EA	48	1985
Insulators, Pedestal		EA	3	1993
Lightning Arresters	13-26 kV	EA	18	1985
Lightning Arresters	46 kV	EA	6	1985
Lightning Arresters	161 kV	EA	6	1993
Reactors & Resistors	13-26 kV	EA	1	1993
Fuses	46 kV	EA	12	1985
Transformer, PT	13-26 kV	EA	6	1985
Transformer, PT	13-26 kV	EA	2	1993
Transformer, Power	34.5 kV	MVA	15	1985

Component	Size	Unit	Quantity	Approximate Year of Construction
Transformer, Power	115 kV	MVA	20	1993
Voltage Regulators	13-26 kV	EA	2	1985
Voltage Regulators	13-26 kV	EA	1	1993
Cable, Underground	4/0	SCLF	1,600	1985
Cable, Underground	4/0	SCLF	3,500	1993
Exterior Fixtures, Luminaire, Mercury	400 watt	EA	12	1985
Exterior Fixtures, Luminaire, HP Sodium	400 watt	EA	4	1993
Services, 3 pole	100 amp	EA	1	1985
Circuit Breakers, enclosed, 600V, 3 pole	100 amp	EA	1	1993
Structural Steel	8x10	LF	1,000	1985
Structural Steel	8x10	LF	400	1993
Concrete Foundation		CY	85	1985
Concrete Foundation		CY	80	1993
6" Concrete, Heavy Industrial, Reinforced Slab		SF	1,000	1985
6" Concrete, Heavy Industrial, Reinforced Slab		SF	925	1993
Chain Link Fence		LF	350	1985
Chain Link Fence		LF	600	1993
Transformers – Pole Mount				
Oil Filled, 1PH	<25 kVA	EA	32	1980
Oil Filled, 1PH	37.5 kVA	EA	11	1980
Oil Filled, 1PH	50 kVA	EA	12	1980
Oil Filled, 1PH	75 kVA	EA	3	1980
Oil Filled, 1PH	150 kVA	EA	5	1980
Oil Filled, 1PH	300 kVA	EA	3	1980
Transformers – Pad Mount				
Oil Filled, 1PH	37.5 kVA	EA	1	1982
Oil Filled, 1PH	75 kVA	EA	13	1982
Oil Filled, 3PH	150 kVA	EA	10	1982
Oil Filled, 3PH	225 kVA	EA	2	1982
Oil Filled, 3PH	300 kVA	EA	5	1982
Oil Filled, 3PH	500 kVA	EA	7	1982
Oil Filled, 3PH	750 kVA	EA	2	1982
6" Concrete, Heavy Industrial, Reinforced Slab		SF	960	1982
Additional Inventory				
Duct Bank	1x3	LF	30,033	1978
Manholes	6x8	EA	27	1978
Pad Mount Disconnect Switches, Gang Operated		EA	2	1978
Pole Type Disconnect Switches, Gang Operated	115 kV	EA	9	1980

Component	Size	Unit	Quantity	Approximate Year of Construction
Guys, Anchors, and Hardware		EA	27	1980
Lightning Arresters		EA	72	1980
Meters		EA	74	1980
Meters		EA	1	2003
Pole Arms	6′	EA	134	1980
Wood Poles	40′	EA	201	1980
Wood Poles	40′	EA	54	2004
Primary Conductor Deadends		EA	1	1980
Terminator Cable, Indoor	15 kV	EA	106	1980
Terminator Cable, Outdoor	15 kV	EA	39	1980
Transformer Grounding Rods		EA	40	1982
Transformer Grounding Rods		EA	6	1985
Transformer Grounding Rods		EA	2	1993
Grounding Rods		EA	80	1980
Grounding Rods		EA	30	1985
Grounding Rods		EA	6	1993
Lighting				
Exterior Fixtures, Luminaire, Mercury	400 watt	EA	71	1975
Exterior Fixtures, Luminaire, HP Sodium	400 watt	EA	367	1975
Exterior Fixtures, Luminaire, HP Sodium	1000 watt	EA	9	1975
Poles (Area Ramp Lighting), Wood	35′	EA	35	1975
Poles (Area Ramp Lighting), Metal	35′	EA	9	1975

Notes:

EA = each	kVA = kilovolt ampere
LF = linear feet	kV = kilovolt
PH = phase	W = watt
UG = underground	ACSR = aluminum-conducting-steel-reinforced
kcmil = thousand circuit mils	PT = potential transformer
MVA = mega volt ampere	MVAR = mega volt ampere reactive
KAH = kiloampere hour	HP = high pressure
V = volt	CY = cubic yard
SF = square feet	SCLF = single conductor linear feet

J1.2.2 Electric 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, since the Installation has very limited manning for performance of electrical distribution system maintenance, there is a negligible amount of material maintained in the electric shop. Therefore, no spares for sale are reflected in **Table 2**. Since the electric shop will retain responsibility for airfield lighting, certain area lights, etc., equipment and tools must be retained for maintenance of the Government-retained utility systems. There are no tools or equipment items available for purchase. Hence, **Table 3** reflects no items available for privatization purchase.

TABLE 2
Spare Parts
Electric Distribution System – March ARB

Quantity	Item	Description	Remarks
None			

TABLE 3
Specialized Vehicles and Tools
Electric Distribution System – March ARB

Description	Quantity	Location	Manufacturer
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 – March ARB

Quantity	Item	Description	Remarks
1	Drawing Set	Comprehensive Plan, Electrical Distribution Tabs	
1	System Study	Electrical Maintenance, System Operation Test Report, SCE, 1997	
1	System Drawings	Reflect cantonment and non-cantonment areas and changes to the electric distribution system	

J1.3 Specific Service Requirements

The service requirements for the March ARB electric distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the March ARB 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 that 15 working days notice of any needed excavations to 452d Civil Engineering and to the Utilities Privatization Administrative Contracting Officer so the location of underground utilities may be located and marked by the applicable utility owner.

J1.4 Current Service Arrangement

- Electricity is purchased from SCE and is delivered by a 115-kilovolt (kV) SCE-owned transmission line.
- Usage fluctuations are driven primarily by cooling loads and have moderate variation. In examining monthly consumption figures for fiscal years (FY) 2002 and 2003, the low monthly figure was 3,327,000 kilowatt hours (KWH) in February 2003, while the high figure was 5,087,200 KWH in August 2003. Total consumption for FYs 2002 and 2003 was 46,472.1 MWH and 47,573.0 MWH, respectively. Historically, peak demand in August is 10.1 megawatts.
- There are apparently no contentious Certificate of Public Convenience and Necessity (CPCN) issues. March ARB does not lie within the boundaries of any municipality; as only municipalities may issue franchises, March ARB is by default not subject to any franchise territory for the electric utility. March ARB is bordered by distribution territory over which SCE 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 – March ARB

Meter No.	Building No.	Meter No.	Building No.
1	2272	39	423
2	2270	40	449
3	2274	41	456
4	2273	42	426
5	2283	43	465
6	2276	44	465 (Elect. Veh. Station)
7	2292	45	176
8	2275	46	317
9	2314	47	373
10	2315	48	Trailer Park
11	2306B	49	605
12	2271	50	602
13	420	51	600
14	429	52	601
15	457	53	385
16	400	54	1208
17	311	55	1212 (Elec. Veh. Station)

Meter No.	Building No.	Meter No.	Building No.
18	265	56	1246
19	110C	57	1213
20	110D	58	1213 (Elec. Veh. Station)
21	NGV STA	59	1214
22	2246	60	1270
23	2245	61	2408
24	2240	62	2500
25	2340	63	2500 (Elec. Veh. Station A&B)
26	2328	64	2485
27	2328 (Elect. Veh. Station)	65	2480
28	2321	66	Army Parking Lot
29	2327	67	2291 (Guard Training)
30	2320	68	115kV Substation Main Meter
31	2339	69	Circuit 2 (at 115kV Sub)
32	2313	70	Circuit 3 (at 115kV Sub)
33	2330	71	Circuit 4 (at 115kV Sub)
34	2306	72	Circuit 7 (at 115kV Sub)
35	2305	73	Circuit 8 (at 115kV Sub)
36	2309	74	Circuit 9 (at 115kV Sub)
37	2338	75	Circuit 15 (at 34.5kV Sub)
38	2300		

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 – March ARB

Location	Description
Near southeast corner of Building 2420	Install meter on Feeder #2 at point of demarcation between cantonment and non-cantonment facilities served by Feeder #2.

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 25th of each month for the previous month. Invoices shall be submitted to:

Name: 452d MSG/CER, Resource Management
Address: 610 Meyer Drive, Bldg. 2403
March ARB, CA 92518-2166
Phone number: (909) 655-3363

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: 452d Civil Engineers
Address: 610 Meyer Drive, Bldg. 2403
March ARB, CA 92518-2166
Phone number: (909) 655-2115

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: 452d Civil Engineers
Address: 610 Meyer Drive, Bldg. 2403
March ARB, CA 92518-2166
Phone number: (909) 655-2115

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: 452d Civil Engineers
Address: 610 Meyer Drive, Bldg. 2403
March ARB, CA 92518-2166
Phone number: (909) 655-2115

J1.7 Energy Saving Projects

IAW Paragraph C.3, Requirement, there are currently no demand side management (DSM) initiatives or Energy Saving Performance Contract (ESPC) arrangements underway at March ARB that would affect privatization of the electrical distribution system.

J1.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the March ARB boundaries and the non-cantonment area utilities described in Paragraph J1.2.1.1.

J1.9 Off-Installation Sites

No off-Installation sites are included in the sale of the March ARB electric distribution system except for the non-cantonment area utilities described in Paragraph J1.2.1.1.

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 – March ARB

Location	Description
None	

J1.11 Government Recognized System Deficiencies

Although there are significant ongoing and planned modifications to the March electric distribution system driven by the BRAC-driven separation of cantonment and non-cantonment areas (see paragraph J1.2.1.1), there are no planned improvements to the system that should be characterized as a system deficiency. Hence, there are no deficiencies listed in **Table 8**.

TABLE 8
System Deficiencies
Electric Distribution System – March ARB

Project Location	Project Description
None	

J1.12 Right of Access to the Utility System

Exhibit A—Map of Premises

Exhibit A map or maps from the Base Comprehensive Plan or other drawings show the known locations of the utility system and are available at the Base Civil Engineering Office. Portions of the utility system may not be fully shown on the map or maps. Any such failure to show the complete utility system on the map or maps shall not be interpreted as that part of the utility system being outside the Premises. The Premises are co-extensive with the entire linear extent of the utility system sold to Grantee, whether or not precisely shown on the map or maps.

Exhibit B – Description of Premises

B.1. General Description of the Utility System, Lateral Extent of the Right-of-Way, and Points of Demarcation:

UTILITY SYSTEM DESCRIPTION:

The utility system may be composed of, without limitation, substations with outdoor switchgear, overhead and underground conductors, utility poles, ducts, raceways, manholes, pad-mount and pole-mount transformers, transformer pads, meters, and instrumentation related to metering of electricity delivered to end users on the Installation.

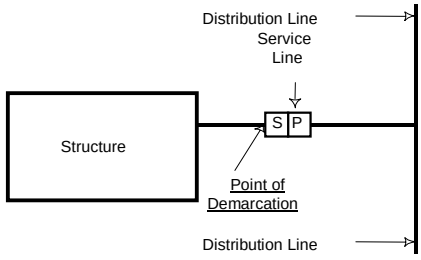
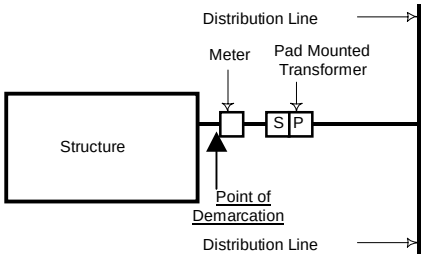
LATERAL EXTENT OF UTILITY SYSTEM RIGHT-OF-WAY:

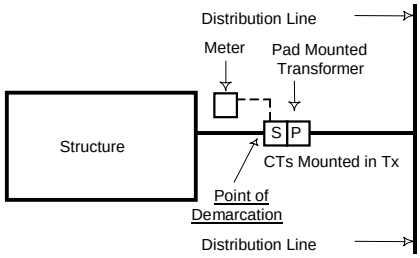
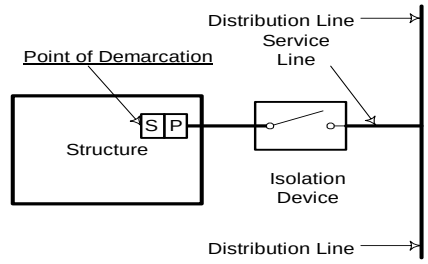
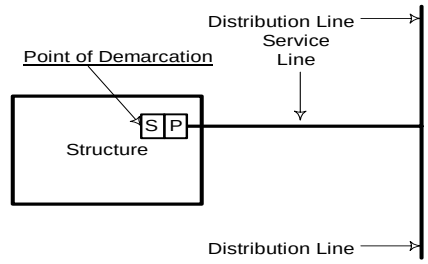
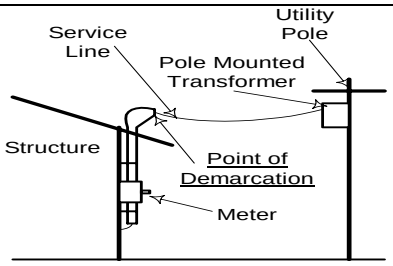
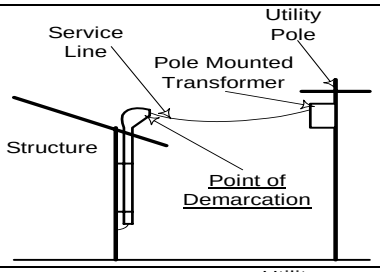
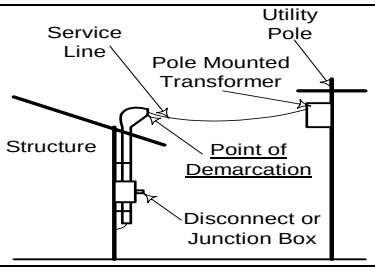
Where the utility system is installed above ground, 26-feet-wide, extending 13 feet on each side of the utility system, as installed.

Where the utility system is installed on or under the ground, 26-feet-wide, extending 13 feet on each side of the utility system, as installed.

UTILITY SYSTEM POINTS OF DEMARCATION:

The point of demarcation is defined as the point on the utility system where ownership changes from the utility system owner to the facility owner. This point of demarcation will typically be at the point the utility enters a facility or the load side of a transformer within a facility. The table below identifies the type and general location of the point of demarcation with respect to the facility for each scenario.

Point of Demarcation (POD)	Applicable Scenario	Sketch
POD is the transformer secondary terminal spade.	Pad Mounted Transformer located outside of structure with underground service to the structure and no meter exists.	
POD is down current side of the meter.	Residential service (less than 200 amps and 240V 1-Phase), and three phase self contained meter installations. Electric meter exists on or within five feet of the exterior of the building on an underground secondary line.	

Point of Demarcation (POD)	Applicable Scenario	Sketch
POD is the transformer secondary terminal spade.	Three Phase CT metered service. Note: The meter, can, CTs, and associated wires are owned and maintained by the electric utility owner.	
POD is secondary terminal of the transformer inside of the structure.	Transformer located inside of structure and an isolation device is in place with or without a meter. Note: Utility owner must be granted 24-hour access to transformer room.	
POD is secondary terminal of the transformer inside of the structure.	Transformer located inside of structure with no isolation device in place. Note: Utility owner must be granted 24-hour access to transformer room.	
POD is where the overhead conductor is connected to the weatherhead.	Electric meter is connected to the exterior of the building on an overhead secondary line. Note: The meter and meter can, though beyond the POD, are owned and maintained by the utility owner.	
POD is where the overhead conductor is connected to the weatherhead.	Pole Mounted Transformer located outside of structure with secondary attached to outside of structure with no meter.	
POD is where the overhead conductor is connected to the weatherhead.	A disconnect switch or junction box is mounted to the exterior of the structure with no meter.	

Point of Demarcation (POD)	Applicable Scenario	Sketch
POD is at the overhead service line's connection to the service entrance mast. Note: If an electric meter is present, or is to be installed, the owner of the electric distribution system on the installation is the owner and maintainer of the electric meter and the can. The POD for the electric meter is at the water utility owner's conductors to the electric utility owner's conductors. This meter POD applies regardless of the location of the electric utility owner's meter. The water utility owner owns the service entrance mast.	Electric power is provided to a water facility via an overhead service drop. This configuration could be found at facilities dedicated to the water utility such as a water well, pump station, or water tower.	None
POD is at the transformer secondary terminal spade. Note: If an electric meter is present, or is to be installed, the owner of the electric distribution system on the installation is the owner and maintainer of the electric meter and the can. The POD for the meter is at the water utility owner's conductors to the electric utility owner's conductors. This meter POD applies regardless of the location of the electric meters and transformers.	Electric power is provided to a water facility via an underground service connection. This configuration could be found at facilities dedicated to the water utility such as a water well, pump station, or water tower.	None

Point of Demarcation (POD)	Applicable Scenario	Sketch
POD is at the overhead service line's connection to the service entrance mast. Note: If an electric meter is present, or is to be installed, the owner of the electric distribution system on the installation is the owner and maintainer of the electric meter and the can. The POD for the electric meter is at the wastewater utility owner's conductors to the electric utility owner's conductors. This meter POD applies regardless of the location of the electric utility owner's meter. The wastewater utility owner owns the service entrance mast.	Electric power is provided to a wastewater facility via an overhead service drop. This configuration could be found at facilities dedicated to the wastewater utility such as a lift station or wastewater treatment plant.	None
POD is at the transformer secondary terminal spade treatment plant. Note: If an electric meter is present, or is to be installed, the owner of the electric distribution system on the installation is the owner and maintainer of the electric meter and the can. The POD for the meter is at the wastewater utility owner's conductors to the electric utility owner's conductors. This meter POD applies regardless of the location of the electric meters and transformers.	Electric power is provided to a wastewater facility via an underground service connection. This configuration could be found at facilities dedicated to the wastewater utility such as a lift station or wastewater treatment plant.	None

UNIQUE POINTS OF DEMARCATION:

The following table lists anomalous points of demarcation that do not fit any of the above scenarios.

Location	Point of Demarcation (POD) Description
Tanker Substation, north end of Chanute Avenue	POD is the face of the Government owned deadend structure at the point of attachment of the SCE-Owned 115 kV feeder.
Main Substation, at Meyer Drive and Air Guard Way	POD is the face of the Government owned deadend structure at the point of attachment of the SCE-Owned 34.5 kV feeders.

B.2. Description of Restricted Access Areas Under Condition 22.2:

Description	Facility No.	State Coordinates	Other Information
Electrical Switching/ Sub Stations			Stations are secured by a locked, chain-link enclosure. Lateral access is provided outward around the perimeter of the chain-link enclosure for a distance of 13' unless inhibited by adjacent structures.

Exhibit C—Environmental Baseline Survey

The Air Force has determined that it is not required to conduct an EBS in regard to the sale of this utility system.