ATTACHMENT J01

Fort Myer Electric Distribution System

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J01 Fort Myer Electric Distribution System

J01.1 Fort Myer Overview

Fort Myer is a U.S. Army Installation situated along a high bluff just west of the city of Washington, D.C., directly across the Potomac River and contiguous to the western boundary of Arlington National Cemetery in Arlington County, Virginia. Originally established as a bastion in the defenses of Washington during the Civil War, the Installation was known as Fort Whipple until February 1881 when it was renamed in honor of Brig. Gen. Albert J. Myer. It is currently home to the U.S. Army Fife and Drum Corps, the 3rd U.S. Infantry ("The Old Guard"), and the U.S. Army Band ("Pershing's Own). The primary mission of Ft. Myer and the units stationed there is ceremonial.

J01.2 Electric Distribution System Description

J01.2.1 Electric Distribution System Fixed Equipment Inventory

The Fort Myer electric distribution system consists of all appurtenances physically connected to the distribution system from the point where the distribution system enters the Main Switching Station 215 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, protective devices, utility poles, ductbanks, 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 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.

J01.2.1.1 Description

Ft. Myer currently purchases wholesale electrical power at 13.8 kV from Dominion Virginia Power Company (DVP) at a single delivery point, the Main Switching Station, Building 215.

The switching station was constructed in 1993 and consists of 13.8 kV metal clad switchgear housed in a brick/masonry building, (see Ft. Myer 13.8 KV Single Line diagram at the back of this section). The switchgear is configured as two 13.8 kV, 1200A, 3-phase bus sections. Bus No. 1 is normally supplied from DVP Feeder No. 14646 (891) via a 1200A, 13.8 kV, 500 MVA vacuum circuit breaker with a second incoming circuit breaker for emergency supply from DVP Feeder No. 14649 (907). Bus No. 2 is supplied from DVP Feeder No. 14647 (896) in the same configuration as bus No. 1. DVP feeder No. 14649 supplies the emergency

circuit breaker on each bus and automatically closes when normal power is lost from feeders 14646 or 14647.

Building 215

Inside of Building 215

As an emergency backup, DVP feeder No. 14649 also enters the Installation overhead at the south end of the Installation, near Carpenter Road. A normally open switch at TV-6 (Rader Clinic) can be closed to backfeed Radar Clinic and/or post feeder No. 1. DVP has also installed a new emergency service at the north end of the Installation. This feeder, also DVP feeder No. 14649, enters the Installation underground near N. Pierce Street and N. 12th Street to pad-mounted switchgear near Building 316, (see feeder diagram at the back of this section) where it can be switched to backfeed post feeder No. 4.

The Fort Myer electric distribution system consists of four independent 13.8 kV underground feeders numbered 1, 2, 3, and 4. Each feeder supplies power to its own set of buildings throughout the Installation. The feeders are organized in two pairs. Feeders 1 and 2 are a pair, as are Feeders 3 and 4. At the end of each pair is a normally open loop-switch that, if closed, electrically connects the pair of feeders into a single loop. Feeders No. 1 and 2 can be tied by closing a normally open, loop feed switch at TV-5. Similarly, post feeders No. 3 and 4 can be tied by closing loop feed switches at NTV-18 and NTV-20. These four feeders are in underground ducts throughout the Installation and supply power to 63 transformer stations.

The underground feeders were installed in 1967. The conductor material was not indicated on the drawings, however, previous studies indicated that the primary feeders are, primarily, #4/0 copper or 350 KCM aluminum with XLP insulation. According to the Department of Public Works & Logistics (DPWL) personnel, approximately 25% of the current feeder cabling inventory is newer, having been replaced or added to, however, the areas served by the newer cabling was not identified in any of the information provided. A Study performed on the Fort Myer electric distribution system in 1996 by STV/Lyon Associates stated, "The capacity of the four government owned feeders is, theoretically, 6600 KVA (290 A) each." The Study further observed that, due to their age, "... the dielectric strength of the insulation has probably decreased to some extent, therefore they should not be loaded to maximum capacity."

The 13.8 kV underground feeders are installed in Poly Vinyl Chloride (PVC) ductbanks ranging from 1x1 to 2x3 ductbanks and generally four or more feet deep. The manholes are a mixture of brick, poured-in-place and pre-cast. The manholes range in size from 4'x6'x5' to 8'x10'x6'. While recent surveys have found the manholes to be in generally good condition, many manholes are subject to fill or partially fill with water, which has led to cable or splice failures.

Replacement dates for the underground transformers were provided in a 9 June 2000 report titled, *Study of Primary Electrical Distribution Systems*, prepared by Henry Adams, Inc. The Transformer Survey Summary table from the Henry Adams, Inc report is located below at Table 1.B. Service transformers consist of both exterior pad-mount type equipment and interior secondary unit substation type equipment. Primary loop-feed switches connect the majority of the transformers. The remainder of the transformers are connected for radial feed. The feeder diagram and one line diagram (at the back of this section) show a typical loop switch/transformer configuration with the service panel located in an adjacent brick building. DPWL personnel indicated that there are approximately twenty transformer locations that utilize this configuration.

Typical Pad Mount Transformer (Bldg 18)

The exterior lighting system consists of roadway lighting fixtures, parking lot lighting fixtures and area lighting fixtures. Area lighting consists of lights for sports and security. All types of high intensity discharge light sources are utilized, including low pressure sodium, high pressure sodium, quartz halogen, and metal halide. Mercury vapor lights are also utilized. All exterior lighting systems are supplied by low voltage, 120V, 208V, 277V, or 480V. Street and parking lot lighting are photocell or time-clock controlled. Area lights for sports facilities are manually switched.

Typical Street Light

The Fort Myer electrical system is aging. Electrical components are durable and will last for many years, however, maintenance has been deferred. Electrical shop staffing has also been reduced. Among human resources no longer available, is a person skilled and trained in medium voltage (13,800 volt) operations and maintenance.

A recent preliminary analysis by DPWL personnel, indicates the primary electric distribution system at Fort Myer is well designed and robust. The system has significant redundancy. It's components are high quality, although in many cases they are in need of preventative maintenance, repair, or replacement. The system is aged but it is serviceable.

The components presenting the greatest risk are electric connections. Permanent connections like splices and taps and mechanical connections like switches are located in switch cabinets and manholes. Most faults can be attributed to these failed connections. Twelve power outages have been recorded since 1997, however, formal reporting and record keeping procedures are not currently in place. Each of the twelve outages lasted four or more hours. Power disruptions are occurring more frequently and, although they are not scheduled, they are predictable. Three have been recorded in 2002 and six since February 2000.

In 2000, Fort Myer contracted with Henry Adams, Inc. to conduct an analysis of the Fort Myer primary electric distribution system. In order to increase system reliability, the study recommended the following:

1. Repair transformer leaks.
2. Perform regular inspection and testing of transformer fluids.
3. Provide protection of transformers from vehicle contact.
4. Replace Installation feeders originally installed in 1967.
5. Repair transfer scheme for the switchgear circuit breakers to minimize power outages during additional testing.
6. Determine cause of main circuit breakers trips when tiebreakers are changed.
7. Update the 1992 Short-Circuit and Coordination Study to include all equipment that has been added to the Fort Myer primary electric distribution system since 1992.
8. Implement recommendations presented within the updated Short-Circuit and Coordination Study in order to remove faults or severe overload conditions from the system in the shortest time possible without disturbing any other portion or affected parts of the system.
9. Perform regular maintenance and testing every three years.

J01.2.1.2 Inventory

Table 1.A provides a general listing of the major electric system fixed assets for the Fort Myer electric distribution system included in the purchase. Table 1.B and 1.C are taken from the 2000 Henry Adams, Inc report of the transformer and manhole survey summaries, respectively. The system will be sold in an "as is, where is" condition without any warrant, representation, or obligation on the part of the Government to make any alterations, repairs, or improvements. All ancillary equipment attached to and necessary for operating the system, though not specifically mentioned here in, is considered part of the purchased utility.

TABLE 1.A

Fixed Inventory - Electric Distribution System Inventory, Fort Myer

Component	Unit	Quantity	Construction Date
Underground Lines			
250 KCM	LF	5,540	1967
300 KCM	LF	6,384	1967
350 KCM	LF	10,982	1967
500 KCM	LF	8,336	1967
750 KCM	LF	2,412	1967
1/0	LF	11,378	1967
2/0	LF	5,155	1967
3/0	LF	11,906	1967
4/0	LF	148,508	1967
Duct bank 1W	LF	4,468	1967
Duct bank 2W	LF	10,999	1967
Duct bank 3W	LF	1,271	1967
Duct bank 4W	LF	24,055	1967
Duct bank 6W Duct bank 5W	LF	3,310	1967
Miscellaneous Items			
Pad Mount Sectionalizing	EA	38	1967
Meters	EA	16	1967
Manholes[1]	EA	187	1967
Handholes	EA	20	1967
Street Lights			
Street Light Conductor	LF	138,220	1986
Low Pressure Sodium Fixtures	EA	65	1986
High Pressure Sodium Fixtures	EA	152	1986
Mercury Vapor Fixtures	EA	100	1986
Quartz Halide Fixtures	EA	24	1986
Pole, Steel, 20 Foot	EA	205	1986
Pole, Steel, 30 Foot	EA	88	1986
Switching Station 215	EA	1	1993

Notes:

Ea = each
LF = linear feet
Ph = Phase

TABLE 1.B

Fixed Inventory - Transformer Survey Summary

	XFMR	BLDG No.	Building Descrip.	Size KVA	Sec Volt Phase	Mfgr. & Serial No.	Est. Insta. Year	Comments
1	TV-1	214	Officer's Club	750	208Y/120 3 Phase	ESCO 8437177	2000	No sample taken. PCB warning labels. Replaced in Feb 2002
2	TV-2A	402	Barracks	500	480Y/277 3 Phase	Atlantic DF-10013161	1967	Transformer is original building equipment. Building may be demolished within 5 years.
3	TV-2B	402	Barracks	300	208Y/120 3 Phase	GE F-958965	1967	PCB warning labels. Transformer is original building equipment. Building may

[1] Manhole inventory number on Table 1.A is derived from GIS Map data from 2002. Manhole data provided on Table 1.C. is from the calendar year 2000, Henry Adams, Inc report.

	XFMR	BLDG No.	Building Descrip.	Size KVA	Sec Volt Phase	Mfgr. & Serial No.	Est. Insta. Year	Comments
								be demolished within 5 years
4	TV-3A	404	Tri-Service Dining	750	208Y/120 3 Phase	Balteau PMF-0705	1985	Need outage to obtain oil sample since sample valve is located behind secondary cable.
5	TV-3B	404	Tri-Service Dining	300	480Y/277 3 Phase	Atlantic DF-10013162	1967	Transformer is original building equipment.
6	TV-4A	403	Barracks/ Fitness	750	480Y/277 3 Phase	Atlantic DF-10013163	1967	Transformer is original building equipment. Building may be demolished within 5 years.
7	TV-4B	403	Barracks/ Fitness	300	208Y/120 3 Phase	Standard 177348	1967	PCB warning labels. Transformer is original building equipment. Building may be demolished within 5 years.
8	TV-5	501	Family Housing	750	208Y/120 3 Phase	H.K. Porter V290019	1985	Need outage to obtain oil sample since sample valve is located behind secondary cable. Located in a screened equipment enclosure
9	TV-6	525	Radar Clinic	750	480Y/277 3 Phase	ESCO 8639526	1985	Indication of prior leak at tap switch and gauge.
10	TV-7A	406	Enlisted Barracks	750	480Y/277 3 Phase	Atlantic DF-0033165	1967	Transformer is original building equipment. Building may be demolished within 5 years.
11	TV-7B	406	Enlisted Barracks	300	208Y/120 3 Phase	GE F-963883	1967	PCB warning labels. Transformer is original building equipment. Building may be demolished within 5 years.
12	TV-8	313	Facilities Engineer	750	208Y/120 3 Phase	Atlantic DF-09263160	1994	Transformer is located 4'3" from building, NEC requires a 6'0" minimum.
13	TV-9	407	Spates Hall	750	216Y/125 3 Phase	Standard RBC-6455	1985	No barrier to prevent vehicular damage (door dented). Watermarks are inside housing. Debris is piled up in front of primary switchgear.
14	TV-10	450	Credit Union	750	480Y/277 3 Phase	Cooper 94600 1823	1994	
15	TV-30		Parking Lot	37.5	480Y/277 3 Phase	ESCO 8639525	1985	Pole-mounted transformer on concrete pad, housed in metal enclosure. No sampling valve.
16	TV-30A	480	New Chapel Parking Lot	25	480Y/240 3 Phase	RBE 7177	1985	Pole-mounted transformer installed on concrete pad, housed in metal enclosure. No sampling valve.
17	TV-400	400	Band Building	1500	480Y/277 3 Phase	Standard RHK-0597	1985	Shrubbery around transformer prevents required clearance to open access doors.
18	TV-405	405	Recreation Center	300	216Y/125 3 Phase	Standard 181691	1967	PCB warning labels. Transformer is original building equipment. Building may be demolished within 5 years.
19	TV-408	408	NCO Club Pool	75	208Y/120 3 Phase	GE L707760 TDLB	1985	No sample valve.
20	TV-410	412	Barracks	500	480Y/277 3 Phase	98M77909	1999	Transformer manufactured in Feb 1999.
21	TV-411	411	Bowling Center	300	208Y/120 3 Phase	Atlantic BF-0410010	1967?	Transformer is located within brick enclosure.
22	TV-416	416	Barracks	500	208Y/120 3 Phase	Westing-house 75L 099019	1967?	Oil sample valve is located on primary side near cables and arrestors. No oil sample taken. The bottom of transformer housing is rusted.

	XFMR	BLDG No.	Building Descrip.	Size KVA	Sec Volt Phase	Mfgr. & Serial No.	Est. Insta. Year	Comments
23	TV-451	451	Bank	75	208Y/120 3 Phase	Balteau POH-0399	1985	
24	TV-11	452	Service Station	112.5	208Y/120 3 Phase	Square D 830208-1	1985	There is severe corrosion on the exterior and interior of transformer housing. Paint is flaking off.
25	TV-480	480	New Chapel	225	208Y/120 3 Phase	H.K. Porter F49142	1985	No sample valve.
26	TV-RF	252	Central A/C Plant	1000	480Y/277 3 Phase	Atlantic DF-10020 3164	1967	Underground
27	NTV-8	431	Quarters	225	216Y/125 3 Phase	SOLA G10694-7	1967	Transformer is located near housing.
28	NTV-9A	469	School	300	480Y/277 3 Phase	Westing-house 81JK 574032	1985	No oil sample valve. Transformer is not protected from vehicular damage.
29	NTV-9B	469	School	225	208Y/120 3 Phase	ABB 95J 848263	1995	Transformer is not protected from vehicular damage.
30	NTV-10	448	Demolished Building					Transformer removed during demolition.
31	NTV-11	219	Education Center	750	216Y/125 3 Phase	Westing-house 7022552	1985	Network transformer.
32	NTV-12	216	Provost Marshall	225	216Y/125 3 Phase	SOLA G10694-2	1967	Indications of ongoing oil leak from gauge and valve compartments. Clay absorptive material is placed in gauge component.
33	NTV-13	468	A/AF Mutual Aid	300	216Y/125 3 Phase	SOLA G10695-1	1967	
34	NTV-14	447	Central Heat Plant	300	208Y/120 3 Phase	Standard MEC-0789	1985	No sample valve.
35	NTV-16	251	Barracks	225	216Y/125 3 Phase	SOLA G10694-8	1967	
36	NTV-17	248	Barracks	300	216Y/125 3 Phase	SOLA G10695-2	1967	Signs of oil leakage at gauge compartment.
37	NTV-18A	241	Ceremonial Hall	500	208Y/120 3 Phase	Westing-house 72L 350001	1985	No gauges or sampling valves on this transformer. A weep leak appears to originate from weld adjacent to X2 bushing.
38	NTV-18B	241	Ceremonial Hall	500	480Y/277 3 Phase	Cooper 9590 01611	1996	Weep leaks appears to originate from top bushings on right (H1A and H2A) and on left (H1B and H2B). No enclosure around transformer. Concrete curb protects transformer from vehicular damage.
39	NTV-18C	241	Ceremonial Hall	300	216Y/125 3 Phase	G73523-2	1967	Evidence of an old leak at transformer.
40	NTV-19	57	Quarters/ Garage	225		SOLA G10694-6	1967	
41	NTV-20	59	Post HQ	500	208Y/120 3 Phase	Square D 830414	1996	Located near Blackjack's grave.
42	NTV-21	56	Quarters/ Garage	225		SOLA	1967	Transformer does not contain nameplate.
43	NTV-22	54	Quarters/ Garage	225	216Y/125 3 Phase	SOLA G10694-4	1967	
44	NTV-23	53	Quarters/ Garage	225	216Y/125 3 Phase	SOLA G10694-3	1967	Transformer has been retro-filled.
45	NTV-24	316	Quarters/ Garage	300	208Y/120 3 Phase	Westing-house	1985	No sample valve, plug on primary side.

	XFMR	BLDG No.	Building Descrip.	Size KVA	Sec Volt Phase	Mfgr. & Serial No.	Est. Insta. Year	Comments
						75H 292205		
46	NTV-25		Sentry Station	150	216Y/125 3 Phase	SOLA G10735-2	1967	Located just inside Wright Gate. Signs of leakage in gauge compartment, standing water on concrete mounting pad. Located in a grass field within a screened enclosure.
47	NTV-26A	301	Pumping Station	300	2400 3 Phase	SOLA G73529	1985	Located just outside Wright Gate.
48	NTV-27A	50	Barracks/ Garage	300	216Y/125 3 Phase	SOLA G73523-1	1967	Signs of a prior leak from gauge compartment, does not appear to be leaking currently.
49	NTV-27B	50	Barracks/ Garage	150	216Y/125 3 Phase	SOLA G73521	1967	Transformer does not contain nameplate.
50	NTV-28	202	Admin	500	208Y/120 3 Phase	Westing-house 86JD 664285	1985	Oil sample valve is located on primary side near cables and arrestors.
51	NTV-29	23	Quarters	225	216Y/125 3 Phase	SOLA G10694-1	1967	
52	NTV-205	205	Logistics Warehouse	750	480Y/277 3 Phase	Atlantic GF 09205211	1995	Not indicated on site plan
53	NTV-272	272	Dog Kennels	75	208Y/120 3 Phase	Atlantic GF 09205212	1995	Not indicated on site plan
54	NTV-325	325	Equip/ Grounds Maint	150	208Y/120 3 Phase	Atlantic GF 09205214	1994	Not indicated on site plan
55	NTV-330	330	Motor Pool	112.5	208Y/120 3 Phase	Atlantic GF 09205213	1994	Not indicated on site plan
56	NTV-335	335	Old Chapel	150	208Y/120 3 Phase	INE Power 74746	1998	Labeled TV-4 on site plan. Dry type transformer.
57	NTV-414	414	Physical Fitness	500	480Y/277 3 Phase	PAD-0422	1994	New building not located on site plan.
58	NTV-523	523	Commis-sary	1500	480Y/277 3 Phase	GF 02144851	1995	During late Jan 2000, a secondary feeder from the Commissary failed causing a feeder breaker at Post switchgear to trip causing 5 buildings to lose power.
59	NTV-P33		Pump Station	100	480Y/277 3 Phase	3177 493795	1994	Located near road salt supply.

Notes:

kVA = nominal kilovolt amperes

TABLE 1.C

Fixed Inventory - Manhole Survey Summary

Manhole	Water Level	Infrared Test	Structural Condition	Comments
1	Full	No Hot Spots	Okay	Required Pumping
2	Some Water	No Hot Spots	Okay	Water Level Below Cables
3	Dry	No Hot Spots	Okay	
3c	Dry	No Hot Spots	Okay	
4	Dry	No Hot Spots	Okay	Contains High And Low Voltage

4a	Dry	No Hot Spots	Okay	
8a	Some Water	No Hot Spots	Okay	Stuck, Required Metal Shop To Open
9	Very Little Water	No Hot Spots	Okay	
9a	Very Little Water	No Hot Spots	Okay	
11A	Very Little Water	Hot	Okay	Right Around 61.5-62 Degrees C
11b	Some Water	No Hot Spots	Okay	
14b	Some Water	No Hot Spots	Okay	
15a	Some Water	No Hot Spots	Okay	Water Level Below Cables
16		No Hot Spots	Okay	
16d	Full	No Hot Spots	Okay	Required Pumping
17	Some Water	No Hot Spots	Okay	Level Below Cables
18	Some Water	No Hot Spots	Bracket Loose	Required Pumping
19	Some Water	No Hot Spots	Collar Chipped	Pumping Required
50		No Hot Spots	Okay	
51	Some Water	No Hot Spots	Okay	Shown As Secondary On Site Plans; Pumped
51 A	Dry	No Hot Spots	Okay	Shown As Secondary On Site Plans
51 B	Some Water	No Hot Spots	Okay	Shown As Secondary On Site Plans
52-1	Dry	No Hot Spots	Okay	Not Shown On Site Plans, Located In Arlington
52-2	Dry	No Hot Spots	Okay	Shown As Secondary On Site Plans
128a	Dry	No Hot Spots	Okay	Square Manhole Cover
AE-1 005	Very Little Water	No Hot Spots	Okay	No Pumping Required
AE -1 006	Very Little Water	No Hot Spots	Okay	No Pumping Required
AE -1 007	Dry	No Hot Spots	Okay	
AE -1 008	Dry	No Hot Spots	Okay	Located In Arlington Cemetery
AE -1 051	Some Water	No Hot Spots	Okay	Water Level Below Cables
AE -1 052	Very Little Water	No Hot Spots	Okay	
AE -1053	Dry	No Hot Spots	Okay	
AE -1054	Very Little Water	Hot	Okay	O. Cable 59 2 C, Slices And Bottom 64.3 C
AE -1060	Dry	No Hot Spots	Okay	
NMH-1		No Hot Spots	Okay	
P-1	Some Water	No Hot Spots	Okay	Water Level Below Cables
P-2	Some Water	No Hot Spots	Okay	Required Pumping
P-3	Full	No Hot Spots	Okay	Required Pumping
P-4	Full	No Hot Spots	Okay	Required Pumping
P-5	Some Water	No Hot Spots	Okay	Splices Blew On 2 Jun 00. Feeder No. 1 Then Feeder No. 2 Blew Three Hours Later.
P-6	Dry	No Hot Spots	Okay	
P-7	Dry	No Hot Spots	Okay	
P-7a				Buried
P-8	Full	No Hot Spots	Okay	Required Pumping
P-9	Some Water	No Hot Spots	Okay	
P-10	Some Water	No Hot Spots	Okay	
P-11	Dry	No Hot Spots	Okay	
P-12	Some Water	No Hot Spots	Okay	
P-13	Dry	No Hot Sots	Okay	
P-14	Dry	No Hot Spots	Okay	

P-15	Full	No Hot Spots	Okay	
P-18	Some Water	N/A	Okay	Required Pumping; Cables Not Visible
P-19	Full	N/A	Okay	Required Pumping; Cables Not Visible
P-20	Dry	No Hot Spots	Okay	Buried In Grass, Extend Collar
P-21	Full	No Hot Spots	Okay	Required Pumping
P-22	Some Water	No Hot Spots	Okay	Water Level Below Cables
P-23	Full	No Hot Spots	Okay	Required Pumping
P-24	Some Water	No Hot Spots	Okay	Water Level Below Cables
P-25	Some Water	No Hot Spots	Okay	Water Level Below Cables
P-26	Dry	No Hot Spots	Okay	
P-27	Some Water	No Hot Spots	Okay	Water Level Below Cables
P-28	Full	No Hot Spots	Okay	Required Pumping
P-29	Dry	No Hot Spots	Okay	
P-30	Some Water	No Hot Spots	Okay	
P-31	Dry	No Hot Spots	Okay	
P-32	Some Water	No Hot Spots	Okay	
P-33	Some Water	No Hot Spots	Okay	
P-35	Some Water	No Hot Spots	Okay	Water Level Below Cables; Buried With Mulch
P-37	Some Water	No Hot Spots	Okay	Water Level Below Cables
P-38	Full	No Hot Spots	Okay	Required Pumping
P-39	Dry	No Hot Spots	Okay	
P-40	Dry	No Hot Spots	Okay	
P-41	Dry	No Hot Spots	Okay	
P-42	Some Water	No Hot Spots	Okay	Water Level Below Cables
P-43	Dry	No Hot Spots	Okay	
P-44	Dry	No Hot Spots	Okay	
P-45	Some Water	No Hot Spots	Okay	No Pumping Required
P-46	Some Water	No Hot Spots	Okay	No Pumping Required
P-47	Dry	No Hot Spots	Okay	
P-48	Some Water	No Hot Spots	Okay	Pumping Required
P-49	Some Water	No Hot Spots	Okay	Pumping Required
P-50	Dry	No Hot Spots	Okay	
P-51	Some Water	No Hot Spots	Okay	No Pumping Required
P-52	Some Water	No Hot Spots	Okay	No Pumping Required
P-53	Some Water	No Hot Spots	Okay	No Pumping Required
P-54	Very Little Water	No Hot Spots	Okay	No Pumping Required
P-55	Full	No Hot Spots	Collar Offset	Collar Not Secured; Bill Realigned With Sledge
P-56	Full	No Hot Spots	Okay	Pumping Required
P-57	Some Water	No Hot Spots	Okay	No Pumping Required

P-58	Full	No Hot Sots	Okay	Pumping Required
P-59	Some Water	No Hot Spots	Okay	Wire Running Over Tree Branch Into P-59
P-60	Some Water	Hot	Okay	117 Degrees F @ Center, 73 Degrees F Left, 69 Degrees F Right
P-61	Very Little Water	No Hot Spots	Okay	
P-62	Some Water	No Hot Spots	Okay	No Pumping Required
P-63	Full	No Hot Spots	Okay	Buried In Stable, Required Metal Detector, Pumped
P-64	Some Water	No Hot Spots	Okay	No Pumping Required
P-65	Dry	N/A	Small Crack	Cables Not Visible To Perform Infrared Scan
P-66	Dry	No Hot Spots	Okay	
P-67	Some Water	No Hot Spots	Okay	Water Level Below Cables
P-68	Some Water	No Hot Sots	Okay	Required Pumping
P-69	Dry	No Hot Spots	Okay	
P-101	Full	No Hot Spots	Okay	No Pumping Required, Commissary

J01.2.2 Electric Distribution System Non-Fixed Equipment and Specialized Tools Inventory

Table 2 lists other ancillary equipment (spare parts) and Table 3 lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment and tools. The successful Contractor shall provide any and all equipment, vehicles, and tools, whether included in the purchase or not, to maintain a fully operating system under the terms of this contract.

TABLE 2
Spare Parts - Electric Distribution System Fort Myer

Qty	Item	Make/Model	Description	Remarks
Fort Myer maintains an inventory of spare parts for the electric distribution system. Contents of the inventory vary as items are used and/or purchased. Availability of this inventory to the new owner will be negotiated before or during the transition period.				

TABLE 3
Specialized Equipment and Vehicles - Electric Distribution System Fort Myer

Description	Quantity	Location	Maker
No specialized equipment or vehicles for maintenance of the Fort Myer electric distribution system will be transferred to the new owner of the system.			

J01.2.3 Electric System Manuals, Drawings, and Records Inventory

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

TABLE 4
Manuals, Drawings, and Records - Electric Distribution System Fort Myer

Qty	Item	Description	Remarks
Fort Myer maintains a limited collection of technical manuals, drawings, and records on the installed components of the electric distribution system. This information will be transferred to the new owner during the transition period. System maps will be available in the bidders' library.			

J01.3 Current Service Arrangement

Fort Myer purchases its electric power requirements from DVP under its Schedule MS Alternate tariff rates. This rate schedule is available to Federal Government Installations with monthly average metered demands of 1,500 kW or more. A single, DVP Power delivery point is located at the northern border of the Installation.

J01.4 Secondary Metering

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

J01.4.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings once a month for all secondary meters IAW H.5 and J01.5 below.

TABLE 5
Existing Secondary Meters (as of the beginning of FY01) - Electric System

INDEX NO.	FACILITY NO.	LOCATION OF METER	OCCUPANCY
1	59	204 Lee Ave	Installation Headquarters
2	113	Arlington National Cemetery	Cemetery Vault*
3	214	214 Jackson Ave	Officer's Club
4	217	202 Jackson Ave	Post Office
5	243	403 Sheridan Ave	Town Hall
6	301	401 Marshall Dr	Water Pump Station
7	407	214 McNair Rd	Spates Hall
8	411	224 McNair Rd	Bowling Alley
9	441	102 Pershing Dr	Shoppette
10	451	108 McNair Rd	Bank
11	452	108 Pershing Dr	Gas Station
12	468	102 Sheridan Ave	Army Air Force Mutual Aid
13	450	104 McNair Rd	Exchange
14	523	409 Carpenter Rd	Commissary
15	30	Switchgear Adjacent to Bldg 59	Arlington Cemetery
16	30	Switchgear Adjacent to Bldg 59	Arlington Cemetery

* Note: The Cemetery Vault meter is not part of the Fort Myer distribution system and is not included as part of this contract. The secondary meter belongs to Arlington National Cemetery.

J01.4.2 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 Clause C.17, Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Clauses C.3, H.5, and J01.5 below.

TABLE 6
New Secondary Meters - Electric Distribution System Fort Myer

Meter Location	Meter Description
Fort Myer will require the successful bidder to provide and install electric meters on all permanent buildings.	

J01.5 Monthly Submittals

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

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 Contracting Officer's designee. (This information will be provided upon award)

Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall include the following information for Scheduled and Unscheduled outages:

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

Unscheduled: Include date, time and duration, facilities affected, response time after notification, completion times, feed-back provided at time of outage, specific item failure, probability of future failure, long term fix, and emergency digging clearance number.

Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

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 Contracting Officer's designee. (This information will be provided upon award)

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 Contracting Officer's designee. (This information will be provided upon award)

J01.6 Energy Savings Projects

An Energy Saving Performance Contract (ESPC) has been awarded at Fort Myer, 18 years remains for the current contract. IAW C.3, Utility Service Requirement, there have been no projects that affect the utility privatization of the exterior electric, potable water or wastewater utility systems.

J01.7 Service Area

IAW Clause C.4, Service Area, the service area is defined as all areas within the Fort Myer boundaries.

J01.8 Off-Installation Sites

Ft. Myer provides electric power to Arlington National Cemetery and National Park Service activities from two - 13.8kV feeders metered at Switching Station 30 located near Building 59 which are not included in the scope of work for this contract.

J01.9 Specific Transition Requirements

IAW Clause C.17, Transition Plan, Table 7 lists service connections and disconnections required upon transfer, and Table 8 lists the improvement projects required upon transfer of the Fort Myer electric distribution system.

TABLE 7
Service Connections and Disconnections - Electric Distribution System Fort Myer

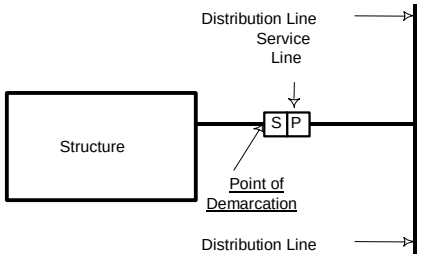
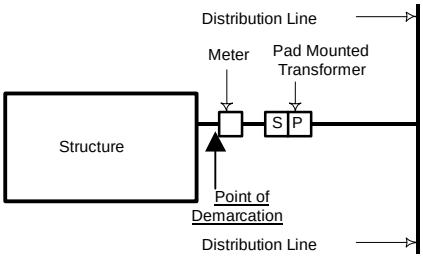
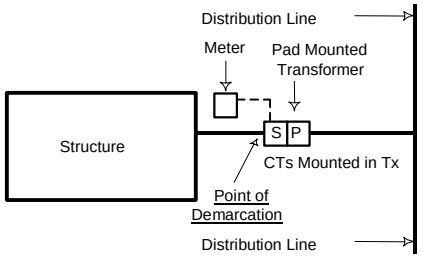
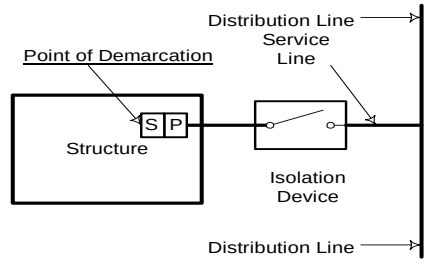
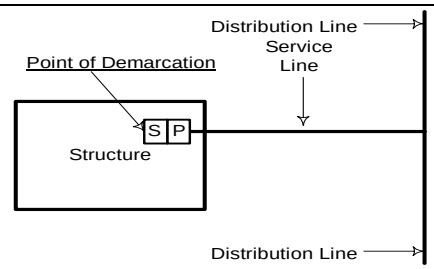
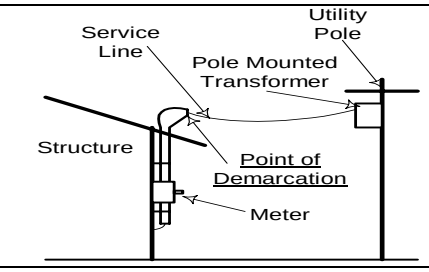
Location	Description
None identified as of the beginning of FY02.	

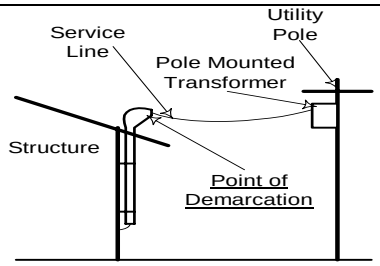
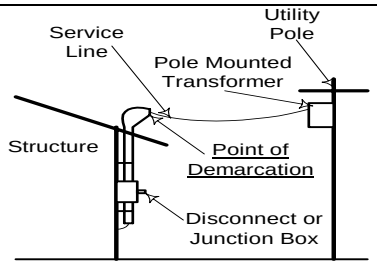
TABLE 8
System Improvement Projects - Electric Distribution System Fort Myer

Project Location	Project Description
Buildings 402, 403, and 406	PCB Transformers are located within these facilities and must be removed in compliance with 40 CFR 61.

J01.10 Electric Distribution System Points of Demarcation

The point of demarcation is defined as the point on the distribution system where ownership changes from the Grantee to the building owner. This point of demarcation will typically be at the point the utility enters a building structure or the load side of a transformer within a building structure. The table below identifies the type and general location of the point of demarcation with respect to the building for each scenario. During the operation and maintenance transition period, concurrence on specific demarcation points will be documented during the joint inventory of facilities.

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.	
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.	

Point of Demarcation (POD)	Applicable Scenario	Sketch
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.	
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 <u>overhead</u> 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	Electric power is provided to a water facility via an <u>underground</u> 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
utility owner's conductors. This meter POD applies regardless of the location of the electric meters and transformers.		
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

J01.10.1 Unique Points of Demarcation

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

Building No.	Point of Demarcation Description
None	

J01.10.2 Plants and Substations

Description	Facility #	State Coordinates	Other Information
None			