ATTACHMENT J01

Fort Eustis Electrical Distribution System

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J01.1 Fort Eustis Overview

Fort Eustis is an U.S. Army Installation located in the western neck of a peninsula formed on the west by the James River and Hampton Roads, and on the east by York River and the Chesapeake Bay. Named in honor of Brevet Brig. Gen. Abraham Eustis, a distinguished artillery officer who served from 1808 to 1843, Fort Eustis was established in 1918 as an artillery training area. It is currently home to the Army Transportation Center and School, the Army Aviation Logistics School, the 7th Transportation Group and other command activities. The Post trains thousands of officers and enlisted soldiers every year in aviation maintenance, harbor craft operations and maintenance, and rail and line haul motor transport. The Post is also responsible for Fort Story, an over-the-shore training sub-installation near Virginia Beach, where Army personnel learn logistical operations.

J01.2 Electrical Distribution System Description

J01.2.1 Electrical Distribution System Fixed Equipment Inventory

The Fort Eustis electric distribution system comprises all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Installation, and/or Government ownership currently, starts to the point of demarcation defined by the real estate instruments. Generally, the point of demarcation will be the building footprint. The system may include, but is not limited to, substations, transformers, underground and overhead circuits, utility poles, switches, vaults, and lighting fixtures. The following description and inventory is included to provide the Offeror with a general understanding of the size and configuration of the distribution system. The inventory is assumed to be approximately 90 percent complete. The Offeror shall base the proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description. Under no circumstances shall the successful Contractor be entitled to any rate adjustments based on the accuracy of the following description and inventory.

J01.2.1.1 Description

Fort Eustis is currently a retail service customer of Virginia Power. The utility provides "regulated public utility service," which involves the delivery of electric power to Fort Eustis at a single, 13.2-kV delivery point located at the northern border of the Installation. The service is provided under Virginia Power's standard MS Alternate retail service rates, which apply to large Federal installations. This rate schedule is available to Federal Government installations with monthly average metered demands of 1,500 kW or more. The electric distribution system at Fort Eustis is presently owned, operated and maintained by civilian personnel and contractors employed by the Army.

Fort Eustis owns and operates an electrical utility system consisting of:

- Three 13.2-kV distribution substations
- Approximately 32 circuit-miles of overhead primary distribution lines
- Approximately 10 circuit-miles of underground primary distribution lines
- 331 pad- and pole-mounted transformers with an aggregate capacity of 92,775 kVA
- 950 building services
- 1,904 street lights

The Master Substation is located near the northern edge of the Main Cantonment Area. It supplies Substations A and B, which are switching substations that supply the entire Installation. The Master Substation consists of one incoming 100-kV line termination, two 20-MVA, 110/13.2-kV power

transformers, three 667-kVA voltage regulators, and five 13.2-kV circuit breakers. Virginia Power owns the 110-kV switching and protective equipment and the two power transformers. Fort Eustis owns the 13.2-kV circuit breakers and voltage regulators.

Substation A is located adjacent to the Master Substation and provides control and over-current protection for five Government-owned 13.2-kV circuits. The voltage regulators for Substation A are located at the Master Substation. Substation B is located near the southern edge of the Main Cantonment Area. It provides voltage regulation control and over-current protection for five 13.2-kV circuits.

The majority of the distribution circuits are configured with loop tie switches to neighboring circuits. The distribution system is composed primarily of overhead, pole-line construction (which is conventional, open wire construction) with pole-mounted transformer banks. However, there is also a substantial amount of underground primary construction, utilizing both direct burial and duct type construction practices.

J01.2.1.2 Inventory

Table 1 provides a general listing of the major electrical system fixed assets for the Fort Eustis electrical distribution system included in the purchase. 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
1. Fixed Inventory
Electrical Distribution System Fort Eustis

Item	Size (In)	Quantity	Unit	Approximate Year of Construction
Substations				
Master Substation				
OCB/Switchgear	13.2 kV	5	Ea	1994
Voltage Regulators	13.2 kV	3	Ea	1981
Miscellaneous		1	Ea	1994
Substation A				
OCB/Switchgear	13.2 kV	5	Ea	1994
Miscellaneous		1	Ea	1994
Substation B				
OCB/Switchgear	13.2 kV	5	Ea	1993
Voltage Regulators	13.2 kV	3	Ea	1981
Miscellaneous		1	Ea	1993
Overhead Distribution Lines				
Large	13.2 kV/3 Ph	93,245	Lf	1974
Small	13.2 kV/3 Ph	45,936	Lf	1974
Single Phase	7.6 kV/1 Ph	29,251	Lf	1972
Secondary		42,082	Lf	1974
Gang Operated Air Breaks Switches		7	Ea	1974
Underground Distribution Lines				
Large	13.2 kV/3 Ph	16,632	Lf	1978
Small	13.2 kV/3 Ph	26,242	Lf	1978

Item	Size (In)	Quantity	Unit	Approximate Year of Construction
Single Phase	7.2 kV/1 Ph	9,082	Lf	1978
Secondary		12,989	Lf	1978
Street/Security/ Parking Lot Lights				
Fixtures		1,904	Ea	1981
Conductors		129,888	Lf	1981
Poles		1,300	Ea	1981
Services				
3 Phase		450	Ea	1977
1 Phase		500	Ea	1977
Transformers-Pole Type				
	15 kVA	117	Ea	1979
	25 kVA	110	Ea	1974
	37.5 kVA	86	Ea	1977
	50 kVA	138	Ea	1971
	75 kVA	101	Ea	1975
	100 kVA	66	Ea	1982
	167 kVA	77	Ea	1975
Transformers-Pad Type				
	1Ph 50 kVA	11	Ea	1971
	1Ph 75 kVA	2	Ea	1987
	1Ph 100 kVA	5	Ea	1987
	1Ph 167 kVA	0	Ea	-
	1 Ph 250 kVA	1	Ea	1988
	3 Ph 75 kVA	7	Ea	1982
	3 Ph 122kVA	3	Ea	1986
	3 Ph 150 kVA	9	Ea	1978
	3 Ph 225 kVA	22	Ea	1980
	3 Ph 300 kVA	30	Ea	1978
	3 Ph 500 kVA	23	Ea	1978
	3 Ph 750 kVA	14	Ea	1973
	3 Ph 1000 kVA	6	Ea	1976
	3 Ph 1500 kVA	2	Ea	1974
	3 Ph 2500 kVA	1	Ea	1973
Electric Meters listed in Table 5.	Various	Approx 127	Each	Various

Notes:

kVA = nominal kilovolt amperes
Ea = each
LF = linear feet
Ph = Phase

J01.2.2 Electrical 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
2. Spare Parts
Electrical Distribution System Fort Eustis

Qty	Item	Make/Model	Description	Remarks
Fort Eustis maintains an inventory of spare parts for the electrical 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
3. Specialized Equipment and Vehicles
Electrical Distribution System Fort Eustis

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

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

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

TABLE 4
4. Manuals, Drawings, and Records
Electrical Distribution System Fort Eustis

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

J01.3 Current Service Arrangement

Fort Eustis purchases its electric power requirements from Virginia Power 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, 13.2-kV Virginia Power delivery point is located at the northern border of the Installation.

The Fiscal Year 1999 (FY99) energy usage and peak demand were approximately 91 million kWh and 23,000 kW respectively. As required by this contract, the Contractor shall demonstrate the ability to meet and shall establish any and all requirements to provide electric distribution service to Fort Eustis.

J01.4 Secondary Metering

The Installation requires 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 Paragraph 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 paragraphs C.3 and J01.5 below.

TABLE 5

5. Existing Secondary Electric Meters

Electrical Distribution System Fort Eustis

BLDG N0.	METER TYPE	METER NO.	LOCATION
669	Electric	95-984-017	Barracks bldg
1414	Electric	47-906-098	Centennial Company
MEDDAC 574/575	Electric	91-415-868	
579	Electric	92-681-006	
Hospital	Electric	389676	On transformer by the incinerator bldg X600
Hospital	Electric	481775	By cafeteria X400
Golf Course	Electric	8635392	Meter on pole inside maintenance area by gas pump across from Bldg 3503
3501	Electric	79-180-103	Golf course
2123	Electric	30-994-218	Fort Eustis Officers' Club
1383	Electric	72-863-840	Package store
659	Electric	763-93-452	Car wash
PXTRA Bldg 1527	Electric	92120337H	Inside door to right X32
1380	Electric	330-35-441	Gas station (in equipment room)
1384	Electric	30-909-046	PX snack bar
705 barber shop	Electric	7-344-625	See Supply Sgt in front of bldg
705 bookstore	Electric	60-629-613	Storage room next to book store
705 snack bar	Electric	43-408-735	Storage room next to snack bar
By 1386	Electric	81-193-451	On pole between 1386 and Class 6 Store
1386	Electric	30-898-753	Main PX
1377	Electric	51-012-693	Laundry center (see lady inside)
2010	Electric	64-061-129	On pole in field by stables
1382	Electric	31-044-275	New commissary upstairs on right
1328 Burger King	Electric	78-963-801	
1317	Electric	55-387-417	First Advantage Credit Union (see receptionist)
1605 (Motor room)	Electric	50-986-0.5	K-110 key Commissary
James River Reserve Fleet Pole 26/11	Electric	70-566-531	Next to bldg 1204
648 Emergency Medical Center	Electric	79-889-171	On pole with transformer behind the building
80th Div 2505 & 2506	Electric	80-285-892	On transformer next to 2505
866	Electric	81-193-518	Go-Kart area on pole in front of bldg X10
3rd Port	Electric	82-625-842	On 3rd Port
1407	Electric	79-180-104	In back room in EP&S to right as you go downstairs
2418	Electric	78-779-467	Hangar at airfield

BLDG N0.	METER TYPE	METER NO.	LOCATION
601	Electric	47-891-643	Cox Communications
1204-A	Electric	60-627-301	PX Maintenance warehouse
828	Electric	24-440-124	Inside mechanical room
824	Electric	55-468-042	Regimental PX main meter in supply room
824	Electric	26-070-359	Regimental PX, PX Shop in supply room
824	Electric	26-400-219	Regimental PX Barber Shop in supply room
Golf course well	Electric	91-110-361-HI	Off Gravel Road near Golf Course Maintenance
3520 cart shack	Electric	93-08025	On right side of cart shack building on building
925	Electric	55-468-028	On transformer outside Child Care Center
925	Electric	68-531-804	Pole 911-B outside Child Care Center
1102	Electric	79-190-542	Youth Services bldg in rear on transformer
2110, 2112, thru 2115	Electric	31-005-657	On transformer outside Transportation Inn X500
1125	Electric	67-410-183	Holly House – COL
1129	Electric	67-410-184	Big Oak Farm - COL
2	Electric	3740735	Greyhound Bus Terminal. In ground close to center of bldg where taxis park
1327	Electric	67-389-977	In break room
6	Electric		Booster pump located to right as you come on post
Pole #3-44	Electric	73-527-892	Bldgs 328, 331 (8 apts)
Pole #3-66	Electric	78-525-624	Bldgs 311, 312 (7 apts)
420	Electric	67-394-618	Azalea House – COL
436	Electric	68-511-913	Magnolia House – GEN
1122	Electric	47-937-848	Camellia House – COL
Pole #23-4	Electric	62-167-138	Bldgs 2310, 2311 (7 apts) Jackson Avenue
Pole #25-19	Electric	67-167-118	Bldgs 2528, 2529, 2543 (16 apts) Jackson to Van Voorhis
Pole #11-22	Electric	42-891-959	Bldgs 1111, 1112, 1113 (18 apts) Pershing to Thompson
Pole #3-39	Electric	73-395-116	Bldgs 339, 335 (8 apts) Across from hospital in field
Pole #23-41	Electric	48-313-993	Bldgs 2342, 2343 (8 apts) Washington & Somerville
Pole #23-75	Electric	62-167-121	Bldgs 2326, 2327 (12 apts) Jackson & 14th Street
Pole #23-14	Electric	78-408-698	Bldgs 2330, 2321 (7 apts) 12th Street
Pole #23-26	Electric	78-522-668	Bldgs 2323, 2331 (7 apts) Jackson Avenue
Pole #23-7	Electric	62-168-006	Bldgs 2308, 2309 (7 apts) Off Jackson Avenue
675 Bowling alley	Electric		On transformer on side of bldg facing car wash
Clothing Sales	Electric		In store room
Anderson Field House	Electric	92-695-030	In Mechanical Room
647 – Theater	Electric		In Mechanical Room
1313 – Library	Electric		In Mechanical Room
808	Electric	389556	(Supv of Sb USN)
808	Electric	481580	(Supv of Sb USN)
810	Electric	389559	(Supv of Sb USN)
810	Electric	481533	(Supv of Sb USN)
814	Electric	389527	(Supv of Sb USN)
814	Electric	389671	(Supv of Sb USN)
Bldg 641	Electric	95-878-829	On transformer behind aquatic center
3rd Port	Electric	31-059-237	1st transformer driving on left side going down the Port, 4th Compartment next to Section 1

BLDG N0.	METER TYPE	METER NO.	LOCATION
3rd Port	Electric	31-059-203	2nd transformer driving on left side going down the Port, Section 1, 4th Compartment
Lot #2	Electric	83-560-913	Meter in trailer park by lot #
Lot #3	Electric	83-560-902	Meter in trailer park by lot #
Lot #5	Electric	81-467-982	Meter in trailer park by lot #
Lot #6	Electric	81-467-904	Meter in trailer park by lot #
Lot #8	Electric	81-467-897	Meter in trailer park by lot #
Lot #10	Electric	90-970-564	Meter in trailer park by lot #
Lot #11	Electric	90-970-558	At back door of trailer
Lot #12	Electric	81-467-734	Meter in trailer park by lot #
Lot #13	Electric	81-467-900	Meter in trailer park by lot #
Lot #14	Electric	81-193-448	Meter in trailer park by lot #
Lot #17	Electric	81-467-899	Meter in trailer park by lot #
Lot #18	Electric	81-193-445	Meter in trailer park by lot #
Lot #19	Electric	47-919-146	Meter in trailer park by lot #
Lot #22	Electric	81-467-979	Meter in trailer park by lot #
Lot #27	Electric	81-467-894	Meter in trailer park by lot #
Lot #28	Electric	90-970-441	Meter in trailer park by lot #
Lot #29	Electric	81-467-977	Meter in trailer park by lot #
Lot #32	Electric	81-467-736	Meter in trailer park by lot #
Lot #33	Electric	79-652-844	Meter in trailer park by lot #
Lot #34	Electric	79-652-894	Meter in trailer park by lot #
Lot #35	Electric	79-652-819	Meter in trailer park by lot #
Lot #36	Electric	79-652-839	Meter in trailer park by lot #
Lot #37	Electric	79-652-887	Meter in trailer park by lot #
Lot #38	Electric	81-467-903	Meter in trailer park by lot #
Lot #39	Electric	81-193-699	Meter in trailer park by lot #
Lot #40	Electric	79-652-822	Meter in trailer park by lot #
Lot #41	Electric	79-652-891	Meter in trailer park by lot #
Lot #42	Electric	79-652-873	Meter in trailer park by lot #
Lot #43	Electric	79-652-901	Meter in trailer park by lot #
Lot #44	Electric	79-652-889	Meter in trailer park by lot #
Lot #45	Electric	79-652-884	Meter in trailer park by lot #
Lot #46	Electric	47-937-823	Meter in trailer park by lot #
Lot #47	Electric	79-652-817	Meter in trailer park by lot #
Lot #48	Electric	79-652-816	Meter in trailer park by lot #
Lot #49	Electric	79-652-876	Meter in trailer park by lot #
Lot #50	Electric	79-652-765	Meter in trailer park by lot #
Lot #51	Electric	79-652-815	Meter in trailer park by lot #
Lot #52	Electric	81-193-520	Meter in trailer park by lot #
Lot #53	Electric	81-193-460	Meter in trailer park by lot #
Lot #54	Electric	47-929-403	Meter in trailer park by lot #
Lot #55	Electric	81-193-562	Meter in trailer park by lot #
Lot #56	Electric	81-193-516	Meter in trailer park by lot #
Lot #57	Electric	79-652-874	Meter in trailer park by lot #
Lot #58	Electric	81-193-512	Meter in trailer park by lot #
Lot #59	Electric	81-193-513	Meter in trailer park by lot #
Lot #60	Electric	81-193-467	Meter in trailer park by lot #
Lot #61	Electric	79-652-818	Meter in trailer park by lot #
Lot #62	Electric	79-652-875	Meter in trailer park by lot #
Lot #63	Electric	90-970-559	Meter in trailer park by lot #
Lot #64	Electric	81-193-704	Meter in trailer park by lot #

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 paragraph C.13, Operational Transition Plan. After installation, the Contractor shall maintain and read these meters IAW paragraphs C.3 and J01.5 below.

TABLE 6
6. New Secondary Meters
Electrical Distribution System Fort Eustis

Meter Location	Meter Description
Table 5 above lists all secondary meters in this system in use as of the beginning FY01. The contractor will be given deletions from and additions to Table 5 during the ownership transition period.	

J01.5 Monthly Submittals

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

Invoice (IAW paragraph 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, feedback provided at time of outage, specific item failure, probability of future failure, long term fix, and emergency digging clearance number.

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

IAW paragraph C.3, Utility Service Requirement, the following projects have been implemented by the Government for managing and monitoring utility systems and energy conservation:

- Fort Eustis maintains and operates a Utility Monitoring and Control System (UMCS). The UMCS is used to monitor and control the on-post utility systems. It is connected to components of the utility systems. After privatization of the electric distribution system the UMCS will be used to monitor some functions of the system. The contractor will be required to cooperate with UMCS operation at no cost to the government by allowing continued connection to the utility components and connection to existing and new components when required for support of UMCS monitoring. Detailed information on the UMCS and its operation will be available in the technical library.

J01.7 Service Area

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

J01.8 Off-Installation Sites

There are no off-installation sites associated with this scope.

J01.9 Specific Transition Requirements

IAW paragraph 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 Eustis electrical distribution system.

TABLE 7
7. Service Connections and Disconnections
Electrical Distribution System Fort Eustis

Location	Description
None Identified as of the beginning of FY01. A list of service connections and disconnections for the ten-year period from FY91 through FY00 is available in the technical library. Required service connections and disconnections will be provided to the contractor as the requirements become known.	

TABLE 8
8. System Improvement Projects
Electrical Distribution System Fort Eustis

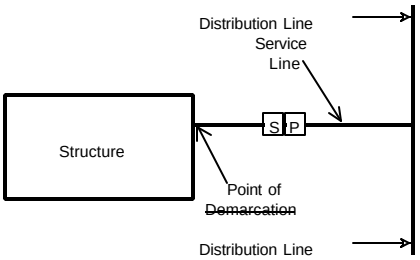
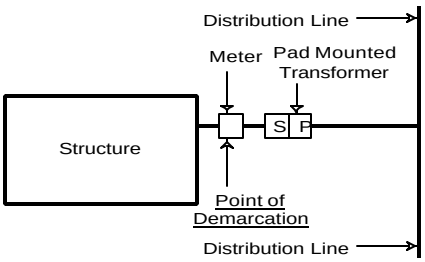
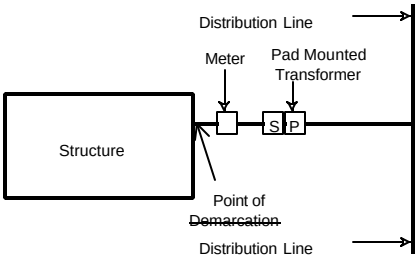
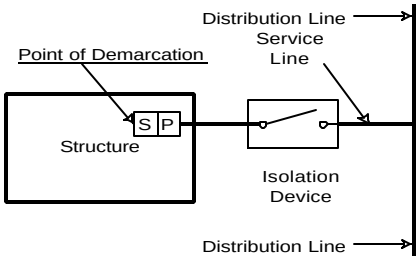
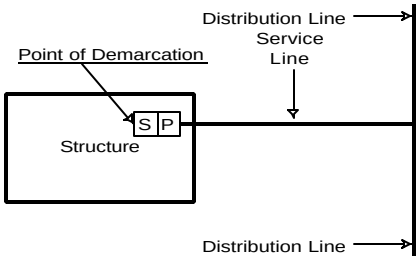
Project Location	Project Description
None identified as of the beginning of FY01.	

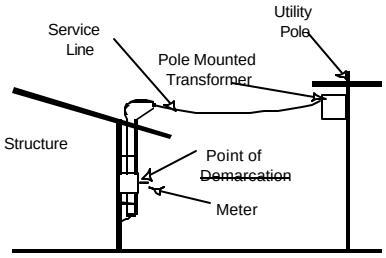
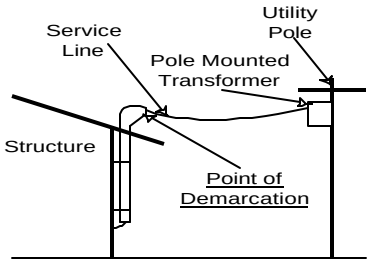
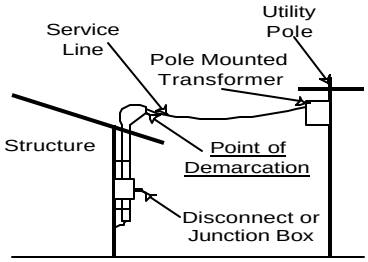
J01.10 Electric Distribution System Points of Demarcation

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.

TABLE 9
9. Points of Demarcation

Electrical Distribution System Fort Eustis

Point of Demarcation	Applicable Scenario	Sketch
Point of demarcation is the first point of disconnect at or in the facility.	Pad Mounted Transformer located outside of structure with underground service to the structure and no meter exists. This configuration applies to some sewage pumping stations as well as other facilities.	
Down current side of the meter	Residential service, and three phase self contained meter installations. Electric Meter exists within five feet of the exterior of the building on an underground secondary line.	
Point of demarcation is the first point of disconnect at or in the facility.	Three Phase CT metered service.	
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.	
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.	

Point of Demarcation	Applicable Scenario	Sketch
Point of demarcation is the meter base.	Electric meter is connected to the exterior of the building on an overhead secondary line. This configuration applies to family housing as well as other facilities.	
Point of demarcation is the point where the overhead conductor is connected to the weather head.	Pole Mounted Transformer located outside of structure with secondary attached to outside of structure with no meter. This configuration applies to some sewage pumping stations as well as other facilities.	
Point of demarcation is the point where the overhead conductor is connected to the weather head.	Service may be overhead or underground. A disconnect switch or junction box is mounted to the exterior of the structure with no meter.	

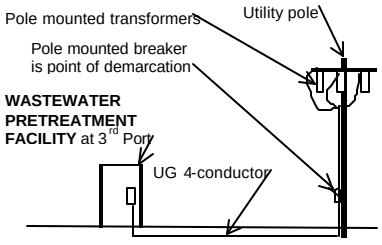
J01.11 Unique Points of Demarcation

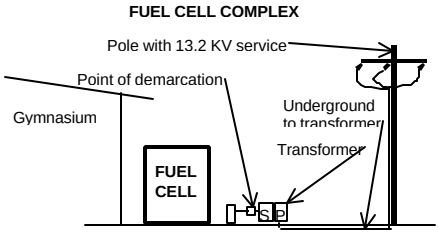
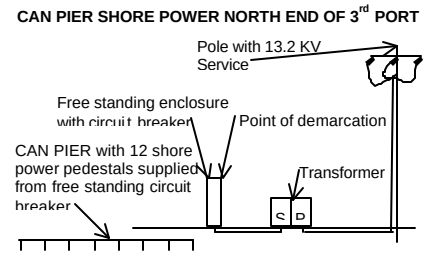
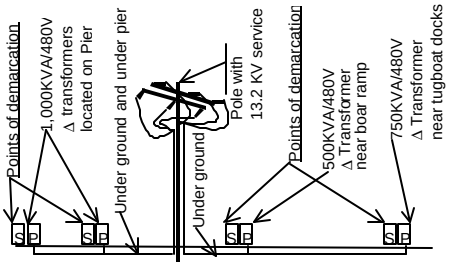
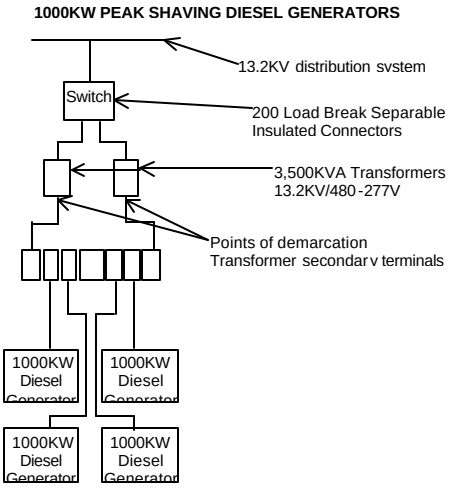
The following table lists anomalous points of demarcation that do not fit any of the above scenarios. Components to which "Unique Points of Demarcation" aspects apply may be added or removed from the electric distribution system before turnover of the system to the Contractor. Review and update of the demarcation points will be accomplished during the operation transition period.

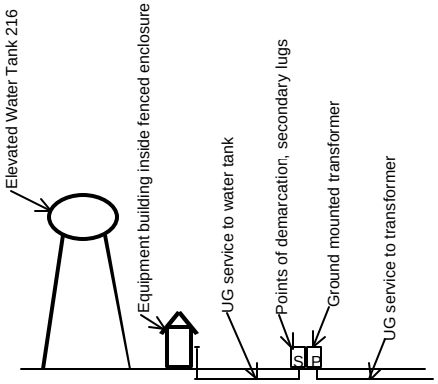
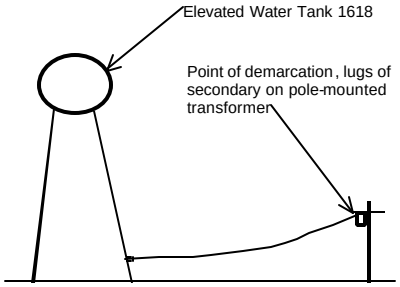
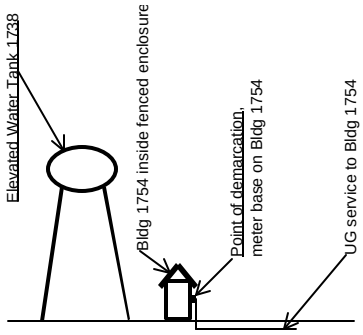
TABLE 10

10. Unique Points of Demarcation

Electrical Distribution System Fort Eustis

Point of Demarcation	Applicable Scenario	Sketch
Point of demarcation is the pole mounted breaker.	**WASTEWATER PRETREATMENT FACILITY at 3rd Port** Service is underground from pole-mounted transformers to interior of wastewater pretreatment facility. No meter is installed. Breaker is mounted on transformer pole near Wastewater Pre-treatment Facility.	

Point of Demarcation	Applicable Scenario	Sketch
Point of demarcation is the first disconnect after the secondary terminals of the transformer (13.2KV/480-277V) connected to the 13.2 KV service.	**FUEL CELL COMPLEX** Service is underground from 13.2 KV service on pole. Two transformers and a fuel cell are interconnected.	
Point of demarcation is the main breaker in the freestanding main distribution panel.	**SHORE POWER SERVICE TO CAN PIER AT NORTH END OF THIRD PORT** Service from pole with 13.2 KV service is underground to pad mounted transformer and underground to free-standing circuit breaker enclosure.	
Points of demarcation for the 500 and 750 KVA transformers are the terminals on the secondary. Points of demarcation for the 1,000 KVA transformers are the cutouts in the switchgear.	**SHORE POWER SERVICE TO SHIPS AT 3rd PORT** Service from pole with 13.2 KV service is underground to pad mounted transformers and underground and in conduit to pier mounted transformers.	
Points of demarcation are the secondary terminals of the two transformers(13.2KV/480-277V) connecting the peak shaving generators to the 13.2 KV service.	**FOUR 1000KW PEAK SHAVING DIESEL GENERATORS** Four diesel generators used for peak demand shaving are connected to the electric distribution system through two transformers.	

Point of Demarcation	Applicable Scenario	Sketch
Points of demarcation are the secondary terminals of the ground mounted transformer east of the water tank.	**ELEVATED WATER TANK 216** Electrical power is used for lighting and communications.	
Points of demarcation are the secondary terminals of the pole mounted transformer.	**ELEVATED WATER TANK 1618** Electrical power is used for lighting.	
Point of demarcation is the meter base mounted on back of Building 1754.	**ELEVATED WATER TANK 1738** Electrical power is used for lighting and communications.	

J01.12 Plants and Substations

TABLE 11

11. Plants and Substations

Electrical Distribution System Fort Eustis

Description	Facility #	State Coordinates	Other Information
None			