

## ATTACHMENT J1

# Tyndall AFB Electric Distribution System

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# J1 Tyndall AFB Electric Distribution System

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## J1.1 Tyndall AFB Overview

The Tyndall AFB is located in Bay County near Panama City in northwestern Florida. The main base and ancillary sites cover about 29,109 acres of land. The property is situated on a peninsula and is connected to the Panama City community area via the Dupont Bridge.

Named after Lt. Frank B. Tyndall, a World War I ace who was killed on active duty in 1930, construction began on the Army Air Corp's Tyndall Field in May 1941. The base was officially opened on December 6, 1941. As a member of the Air Education and Training (AETC) command, the primary mission of Tyndall AFB is the training of Air Force pilots. Over the years many of the original facilities have been renovated to accommodate the changes in mission requirements and increased population. Facilities range from original 1941 construction to modern energy efficient office and industrial complexes.

Tyndall AFB hosts many tenant organizations with diversified functions and missions: HQ Air Force Civil Engineer Service Agency; HQ 1<sup>st</sup> Air Force; HQ Southeast Area Defense Sector; Air Force Research Laboratories (Armstrong and Wright Labs); 53<sup>rd</sup> Weapons Evaluation Group; 84<sup>th</sup> Radar Evaluation Squadron; and Detachments of the Minnesota Air National Guard, and Air Force Operations Test and Evaluation Group.

Tyndall AFB and its ancillary sites cover over 29,000 acres. The Tyndall AFB land and ownership are summarized in the following table.

Location	Type	Acres
Main Base	Public Domain	2,101
Main Base	Fee Condemned	26,661
Main Base	Fee Purchased	5
Main Base	Easement	57
Cove Gardens (N.I.C.)	Fee Condemned	33
Apalachicola (N.I.C.)	Lease	7
Carrabelle (N.I.C.)	Fee Purchased	33
Lynn Haven (N.I.C.)	Fee Purchased	203
Samatra (N.I.C.)	Permit	1
St. George Island (N.I.C.)	Fee Purchased	1
<b>Total =</b>		<b>29,102</b>

*N.I.C. - Not In Contract*

Tyndall AFB is similar in scale to a small community. There are approximately 655 facilities consisting of administration, commercial, schools and training, hospital and clinics, recreational, airfield support, fire protection, and transient living that total more than 3,680,000 square feet. In addition, there are six distinctive housing areas containing single and multi-family units. There are more than 560 facilities containing approximately 1085 individual units totaling more than 1,400,000 square feet.

The airfield consists of two paralleled runways and associated taxiway system. The outside (13L-31R) runway is 200 feet wide and 10,000 feet long. It has high intensity edge lights, high intensity threshold lights at both ends, lighted distance marker on both sides of the runway, and aircraft arresting barrier on both ends of the runway., with one end raised at a time. The outside runway has high intensity approach lighting system with sequenced flashers (ALSF-1) on both ends and pre-threshold light bars and terminating light bars on both ends. The inside runway (13R-31L) is 150 feet wide and 8075 feet long. It has high intensity edge lights, runway end lights on the 31L end and lighted distance markers on both sides of the runway. All airfield lighting is connected to a computer control system located at the Airfield Light Vault (Building 206). A new modern computer control system will be installed at AF vault this year. The outside and the inside runways are served by precision approach path indicators (PAPI) on both ends of the runways. The airfield also has one identification beacon mounted on existing elevated water tank, Facility No. 733 and four non-illuminated wind cones.

Tyndall AFB military personnel total 3951 and are primarily permanent party with some Air National Guard and transient students. Civilian support staff consists of 1210 government employees and 1510 contractors. In addition to actual employees, military and civilian, there are 5339 dependants (wives, husbands, and children).

Tyndall AFB is the largest employer in Bay County and the surrounding area. The economic impact on the surrounding communities and counties is estimated to be over \$422 million.

Many of the facilities on Tyndall AFB, which were built in the 1940's, are still occupied and many are being renovated to meet the ever-changing occupancy requirements. Several facilities are being torn down and replaced with newer, larger, more efficient facilities. In addition, new facilities are being built to meet the changing mission requirements with total facility square footage staying fairly constant due to newer facilities being approximately the same square footage as the facilities being torn down. Over the next three years, Tyndall AFB will be constructing four new facilities and an existing facility renovation to support a new mission requirement. These new facilities will increase Tyndall AFB net square footage by approximately 140,000 square feet. These new facilities will have minimal impact on the base electrical consumption.

## **J1.2 Electric Distribution System Description**

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

The Tyndall AFB electric distribution system consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Installation and Government ownership currently starts to the point of demarcation, defined by the Right of Way. The system may include, but is not limited to, transformers, circuits, 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. Housing Privatization is projected for Tyndall AFB in FY 05. A rough order of magnitude of the extent of the inventory that supports MFH is 20%.

Specifically excluded from the electric distribution system privatization are:

- Airfield Lighting(including the Tower Beacon Lights located on Facility Nr 733)
- Main Substation (1238)
- Electrical distribution system located in Military Family Housing Areas.
- Parking lots and pedestrian pathway lighting fed off the building internal source.
- Cove Gardens
- Apalachicola
- Carrabelle
- Lynn Haven
- Samatra
- St. George Island

#### J1.2.1.1 Description

Tyndall AFB purchases electricity from the Gulf Power Company (GPC). The power is delivered through a Gulf Power owned electrical substation on the west end of the base near the hospital. Power enters the Gulf Power substation by two 46 kV lines. The Gulf Power substation steps the voltage down to the 12.47 kV distribution level. Each of the 46 KV lines capable of carrying 25 MW and installed in 1961, feed two separate transformers 20 MVA. Both transformers at the Gulf Power substation serve Tyndall AFB. In addition, Gulf Power owns 13,100 Linear Feet (LF) of wire and 46 transformers associated with the Capehart feeder located in Bay View and School.

The Gulf Power transformers supply power to three (3) Bays located within the Gulf Power substation. Each of the three Bays has a vacuum circuit breaker and three regulators per phase. The power is then distributed over the government owned distribution system by five radial distribution feeders. Bay #1 has Wherry and Mississippi feeders, Bay #2 has Suwannee feeder and Bay #3 has Hospital and Capehart housing feeders.

The nominal distribution system voltage is 12.47 kV grounded wye. All of the government owned feeders at Tyndall AFB are operated as radial feeders with predominantly overhead construction using wood poles. The backbone phase conductor size used leaving the substation on all these feeders is 4/0 copper. However, there is generally a variety of

conductor sizes used throughout the distribution system. Most of the overhead conductors are copper, but aluminum conductors have been used in some portions of the system.

Tyndall AFB 12.47 kV electrical distribution system consists of approximately 159 wire miles of primary conductor. This is split with approximately 95% overhead and 5% underground construction. The voltage is transformed down to the secondary utilization voltages at the load centers.

The following are existing deficiencies that have been identified by the Government and the Utilities Privatization feasibility study.

- a. Substation 9700 (AF Labs). The replacement of the substation has been identified under Tyndall's Infrastructure program. In addition, it was included in the list of projects recommended by the FIX Team from AETC on their June 1999 visit. Existing conditions are very deteriorated and will be replaced. For more information see Tyndall's infrastructure projects.

### J1.2.1.2 Inventory

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

Table 1  
Fixed Inventory  
Electric Distribution System Tyndall AFB

Component Description	Size	Quantity	Unit of Measure	Material Type1	Approximate Year Installed
<b>Primary Overhead Circuits</b>					
3ph, 4w, 15kV Conductor	AWG # 4	40,488	SCLF	CU	1958
3ph, 4w, 15kV Conductor	AWG # 4	221	SCLF	CU	1951
3ph, 4w, 15kV Conductor	AWG # 4	755,006	SCLF	CU	1950
<b>Primary Underground Circuits</b>					
High Voltage Cable 3ph, 4w, 15kV	AWG # 1/0, 15kV	11,164	SCLF	CU	1985
High Voltage Cable 3ph, 4w, 15kV	AWG, 250 kcmil	6,508	SCLF	CU	1986
High Voltage Cable 3ph, 4w, 15kV	AWG # 1/0, 15kV	28,010	SCLF	CU	1950
Conduit	4"	2,791	LF	PVC	1985
Conduit	4"	1,627	LF	PVC	1986
Conduit	4"	7,003	LF	PVC	1950
<b>Secondary Overhead Circuits</b>					
3ph, 4w, Conductor	AWG # 4	4,684	SCLF	AL	1958
3ph, 4w, Conductor	AWG # 4	1,389,410	SCLF	AL	1959
<b>Secondary Underground Circuits</b>					
3ph, 4w, Conductor	AWG # 4/0	216,589	SCLF	CU	1972

Component Description	Size	Quantity	Unit of Measure	Material Type1	Approximate Year Installed
Conduit	4"	54,148	LF	PVC	1972
<b>Electric Utility Poles</b>					
Electric Utility Pole	40 ft	330	EA	Wood	1949
Electric Utility Pole	40 ft	661	EA	Wood	1961
Electric Utility Pole	40 ft	1,104	EA	Wood	1985
<b>Manholes</b>					
Manholes, precast	4' dia	55	EA	Concrete	1985
<b>Protective Devices</b>					
Reclosers	15KV	12	EA	Oil	1985
Voltage Regulator	15KV	3	EA		1989
Lightning Arrestors	13 to 26 kV	549	EA		1950
Lightning Arrestors	13 to 26 kV	36	EA		1958
Lightning Arrestors	13 to 26 kV	278	EA		1959
Lightning Arrestors	13 to 26 kV	134	EA		1972
Lightning Arrestors	13 to 26 kV	30	EA		1985
Lightning Arrestors	13 to 26 kV	9	EA		1986
Lightning Arrestors	13 to 26 kV	29	EA		1997
<b>Capacitors</b>					
Capacitor Banks	MVAR	6	EA		1985
Substation Building #9704		1	EA		1985
<b>Light Poles</b>					
Light pole	30 ft	316	EA	AL	1985
<b>Elevated Street Lights</b>					
High Pressure Sodium	400 watt	1,761	EA		1985
Mercury Vapor	400 watt	719	EA		1985
<b>Switchgear</b>					
Disconnect switch, single pole disconnect	15kV	21	EA		1961
Disconnect switch, single pole disconnect	15kV	21	EA		1985
Disconnect switch, gang operated,	15kV	21	EA		1985
Air Break Switch	15kV	16	EA		1989
Underarm Air Break Switch		10	EA		1989
Switch Cabinet		23	EA		1995
<b>Electric Meters</b>					
1ph & 3ph 120 - 480 V		192	EA		1985

Component Description	Size	Quantity	Unit of Measure	Material Type1	Approximate Year Installed
<b>Transformers Single Phase</b>					
Transformers, Single phase	5 kVA	5	EA	Pole Mt.	1961
Transformers, Single phase	5 kVA	5	EA	Pole Mt.	1985
Transformers, Single phase	10 kVA	35	EA	Pole Mt.	1961
Transformers, Single phase	10 kVA	34	EA	Pole Mt.	1985
Transformers, Single phase	15 kVA	35	EA	Pole Mt.	1961
Transformers, Single phase	15 kVA	22	EA	Pole Mt.	1985
Transformers, Single phase	25 kVA	63	EA	Pad Mt.	1985
Transformers, Single phase	25 kVA	6	EA	Pad Mt.	1998
Transformers, Single phase	25 kVA	75	EA	Pole Mt.	1961
Transformers, Single phase	25 kVA	68	EA	Pole Mt.	1985
Transformers, Single phase	37.5 kVA	26	EA	Pole Mt.	1961
Transformers, Single phase	37.5 kVA	45	EA	Pole Mt.	1985
Transformers, Single phase	50 kVA	40	EA	Pole Mt.	1961
Transformers, Single phase	50 kVA	25	EA	Pole Mt.	1985
Transformers, Single phase	75 kVA	39	EA	Pole Mt.	1961
Transformers, Single phase	75 kVA	39	EA	Pole Mt.	1985
Transformers, Single phase	100 kVA	2	EA	Pad Mt.	1961
Transformers, Single phase	100 kVA	35	EA	Pole Mt.	1985
Transformers, Single phase	167 kVA	22	EA	Pad Mt.	1961
Transformers, Single phase	167 kVA	21	EA	Pad Mt.	1985
<b>Transformers, Three Phase</b>					
Transformers, Three phase	45 kVA	2	EA	Pad Mt.	1985
Transformers, Three phase	75 kVA	1	EA	Pad Mt.	1985
Transformers, Three phase	150 kVA	2	EA	Pad Mt.	1985
Transformers, Three phase	225 kVA	9	EA	Pad Mt.	1985
Transformers, Three phase	300 kVA	22	EA	Pad Mt.	1985
Transformers, Three phase	500 kVA	12	EA	Pad Mt.	1985
Transformers, Three phase	750 kVA	2	EA	Pad Mt.	1985
Transformers, Three phase	1000 kVA	2	EA	Pad Mt.	1985
Transformers, Three phase	1000 kVA	1	EA	Pole Mt.	1965

**Legend:**

AWG - American Wire Gauge; CU - Copper

kVA - Kilovolt Amperes; EA - Each

LF - Linear Feet; MVAR Million Volt Amperes Reactance;

Kcmil - thousand circular mils

**Notes:**

1. Drawings furnished by Tyndall AFB do not indicate material types. Material types have been assumed and may not necessarily reflect the actual material in place.

ph - phase; dia - diameter ; w- wire; Mt - mounted

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

**Table 2** lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

## TABLE 2

Spare Parts

Electric Distribution System Tyndall AFB

Qty	Item	Description	Remarks
11	Transformer	25 KVA	
2	Transformer	37.5 KVA	
4	Transformer	50 KVA	
1	Transformer	75 KVA	

TABLE 3  
Specialized Vehicles and Tools  
Electric Distribution System Tyndall AFB

Description	Quantity	Remarks
None		

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

**Table 4** lists the manuals, drawings, and records that will be transferred with the system. In addition to the items shown, any O&M manuals available at the time of transfer will be provided to the new owner.

TABLE 4  
Manuals, Drawings, and Records  
Electric Distribution System Tyndall AFB

Qty	Description	Remarks
1	Infrared Inspection of Electrical Distribution System at TYNDALL AFB	
1	TYNDALL AFB Main Substation & Distribution System Study	
1	Copy of the current Electrical Distribution System study performed by A/E. Study contains Base electrical distribution system model using Easy Power as a software.	
1	Utility System drawings A1U.dwg through G7U.dwg	AUTOCAD drawings Version 2000 (CD ROM)

## J1.3 Specific Service Requirements

The service requirements for the Tyndall AFB electric distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Tyndall AFB electric distribution system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

1. **Power Quality:** In response to the growing concern for power quality today, the contractor shall be responsible to develop power quality programs to satisfy customer concern. Contractor will be responsible for educating the customer and promoting services that help develop solutions to today's power quality problems. IEEE 519, Recommended practices and Requirements for Harmonic Control in Electrical Power Systems, provides the standard industry-accepted method of evaluation of harmonic voltages and currents. Contractor will maintain a power factor of 0.95 and a voltage level of  $\pm 7.5\%$  of nominal voltage at the point of service. Each service point does not have to be monitored for power factor and voltage on a continuing basis.
2. The contractor shall handle, store, use, and dispose of all materials and wastes in accordance with all state, local, federal, Air Force, and AETC environmental statutes, regulations and procedures. Any questions concerning the above mentioned statutes, regulations and procedures by the contractor shall be directed to the Base Environmental Flight (325 CES/CEV).
3. All hazardous materials used by the utility contractor will be handled as required by law and /or base safety. Contractor will be held liable for any miss use or handling of hazardous materials.
4. Contractor is required to get prior approval of all radio frequencies before using any communications devices on Tyndall. No narrow band communications may be used or amplified RF equipment. Certain areas of the base have cell phone dead zones.
5. The contractor must coordinate all capital improvement planning and design efforts with the installation.
6. Should the contract provider not be able to perform utility service due to business problems the government reserves the right to perform work with its own resources to maintain the system for continuation of service. Contractor business problems may consist of but is not limited to: bankruptcy, receivership, employee strike, etc. Contractor is required to notify the government with-in 24 hours of such occurrence. Further details can be found in paragraph H.6 of this contract.
7. Lightning arrestors, grounding and cathodic protection shall be used on specific utilities as required by industry standards.
8. The government will be notified of all scheduled utility outages 48 hours in advance. The government reserves the right to have the scheduled outage postponed should the outage interfere with mission critical operations.
9. The contractor will be required to support and assist in disaster recovery or emergency situations that require system shut-off or temporary connection or disconnects. Emergency operation and disaster recovery requirements are described in Tyndall Air Force Base Contingency Response Plan 702. The contractor's interruption and contingency plans shall reflect the requirements of the base 702 plan.
10. The Contractor shall enter into a Memorandum of Understanding (MOU) with the Base Fire Department for fire protection of all facilities included in the purchase of the utility. The MOU shall be completed during the transition period and a copy provided to the Contracting Officer.

## J1.4 Current Service Arrangement

- Provider Name: Gulf Power Company
- Average Annual Usage: 99,091,262 KWh
- Maximum Demand: 20,870 KW (July 03)
- High Month: 10,982,600 KWh – July 03
- Low Month: 6,472,279 KWh – February 03
- Annual Usage Fluctuations  $\pm 3\%$

Gulf Power owns the primary substation, 13,100 Linear Feet (LF) of wire and 46 transformers associated with the Capehart feeder located in Bay View Housing area , Tyndall Elementary School, GT Com, the primary distribution from the bay to the primary substation, and all lines feeding the Bay County Waste Water Treatment Facility, the Bay County Water pumping station, and Military Point Lagoon. For more information see Utilities Drawings

## J1.5 Secondary Metering

### J1.5.1 Existing Secondary Meters

Tyndall AFB has 192 electric meters in base. There 71 reimbursable customers. Of all reimbursable customers, a total number of sixty have electric meters and eleven of them are estimated monthly. Meters will need to be read monthly and reported per schedule in J1.7. Meters that are found on site and that are not identified in Table 5 and meters that are added as a result of new construction shall become the property of the contractor and should be added to the contract listing. The contractor is responsible for monitoring, repairing and maintaining all gas meters.

Meters provided by subcontractors (i.e. mobile telephone stations) are the property of that specific contractor. These meters will need to be read monthly for reimbursable billing purposes and reported per J1.7.

**Table 5** provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. Meters found on site and are not identified in this list and meters added as a result of new construction shall become the property of the contractor and should be add to the contract listing. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3 and J1.6 below.

TABLE 5  
Existing Secondary Meters  
Electric Distribution System Tyndall AFB

Building/Meter	Serial Number	Building/Meter	Serial Number
----------------	---------------	----------------	---------------

5008 Shoal Pt. Shoppette (2)	82821751	1454 Officer's Club (40A)	01126541
5013 Bonita Bay (3)	76537661	1465 Hospital main bldg (41)	31049605
4013 Fam-Camp (4)	56666314	1467A Hospital Warehouse Add. (42)	78803648
4027 Gate House (6)	74843541	1467B Hosp. Warehouse Sup. (43)	70492029
3350 Wood Manor Shoppette	55437333	1468 Hosp Maintenance Bldg (43A)	93136864
3223 Youth Center (12)	70399260	1471 Medical WRM Storage (44)	82109886
Golf Course-OH Distribution Line (14)	82923984	1404/1406 Family Prac./Managed Care	1140720
3015 Golf Course Cart Barn	55437332	804 NCO Academy Ball field (46)	76537671
3029 Golf Course Club House (16)	37221304	856 Hospital Mental Health Clinic (47)	86371721
2699 Yacht Club (20)	84906337	808 Small Computer Tech Cent (48)	68164787
3302 RV Parking (23)	78569055	659 Security Police (48A)	95955376
3304 Housing Maintenance Office (23-1)	01030786	662 Base Support Bldg (49)	5569C44G04
1256 Skeet Range (23A)	38682287	849 TV Cable Office (49A)	63375055
Skeet Range Trailer	11417025	Bell South Mobility	57506003
1270 Controller Training (24)	76537653	1410 Child Care Center (50)	76537666
1274 FAA (24A)	83242739	845 NCO ACAD Dorm (51)	79077410
1275 GT Comm-Telephone (25)	32714434	1506 BX Shoppette (53)	1134847
1287 Veterinarian Bldg (26)	79177631	Bldg 1580	56551717
1230 Education Center (27)	78920032	Bldg 1582 -1506	81988695
1305 Hosp Clinic (27A)	01141722	837 NCO ACADEMY (54)	79875362
1311 SVS Graphics (27B)	1140723	960 Burger King (55)	82609908
1314 TLF (28)	76537656	950A Base Exchange (56)	30937745
1315 TLF (29)	76537664	950B Commissary (57)	30937744
1316 TLF (30)	76537662	950C Satellite Pharmacy (57A)	55447971
1317 TLF (31)	76537665	939 Base Gym (58)	76537669
1318 TLF (32)	76537663	1515 Score Board Facility (59)	81327170
GT Comm Telephone	48565244	1515 Running Track (60)	76537676
1332 Sand Dollar Inn (35)	76409817	1550 NCO Club (61)	56551704
1360 Billeting (36)	79071900	1046 Dorm	49232345
1361 Billeting (37)	79071901	928 MWR Car Wash (64)	84943874
Behind Service Station	12903718	934 Arts and Crafts (65)	76537672
824 BX Laundry (72)	97510243	913 Credit Union Main Bldg (67)	55434407
2699 Yacht Club (20)	84906337	912 Youth (Teen) Center (68)	9606778
822 1st AF Bldg (72A)	32351663	914 Bowling Alley (68A)	76702660
649 2021 Comm Sqdn (73)	56551707	920 1st Air Force	70217518
650 Comm Sqdn	55410140	909 Disaster Preparedness (69)	89601454
647 Wing HQ (75)	90163323	968 Service station (71)	337788327
916 library (76)	82705020	226 Command Section	56441702
748 Data Automation (77)	83073596	227 Hanger #5 (102)	71509527

745 Family Support Center (78)	82624314	227 Hangar #5	56551700
743 Family Services	56551718	239 Engine Test Cell	56666315
741 Photo Lab	56551703	266 Packing and Crating	56551710
1003 Post Office (79)	68080182	267 AGE Facility	55438153
1018 Falcon Field #2 (81)	76537675	260 OSS Admin Offices	56666316
1680 Dorm	80879124	258 Wheel & Bearing Bldg	56551709
1690 Dinning Hall (82)	50949355	258 Engine Shop	56551714
GT Comm-Tele Equipment (82A)	33788327	256 ACFT	56551712
1150-1156 Dorm Complex (83)	79932058	Ramp Floodlights (103)	GE82705
1027 Recreation Center (84)	76537657	375 Subscale Drone Warehouse (104)	71068711
1028 Recreation Center Grill (84A)	8440665	310 NDI Lab	56551713
1142 Applied Research Assoc (85)	82072012	311 Classified Storage	19908286
1140 BDM Contractor (86)	80084081	313 Corrosion Control Comp Bldg	78892242
1616-1617 Dorms (87)	55290635	315 Corrosion Control (105)	77788525
1134 CEMIRT (88)	78906836	325 Hush House (106)	772957586
1136 K-9 Kennels (89)	78569052	106 ALEART Facility (107)	76537673
1137 Services Warehouse (90)	77819510	7033 Ammo Area (108)	77460396
1139 Furman Office	91373900	7033 Ammo area Computer Rm (109)	32516260
1703 Sewer Treatment (91A)	55431403	7032 Ammo Area Gate House (110)	76487013
1708 SC Lab Biology	56551708	7022 Fire Protection Generator (112)	62031167
1801 Range Control (92)	76537658	7026 Ammo Area (113)	76537659
1120C AFCESA Module C (93)	64770032	7028 Ammo Area (114)	69193619
1120A AFCESA Modules A&B (94)	81671520	Ammo Area Security Bldg	81947651
249 Cold Storage (95)	84813901	New Control Tower	81212938
1117 AFCESA Lab (96)	71513657	7040 Ammo Area (115)	76340932
206 Airfield Lighting Vault	55424573	131 Supply	82236984
280 Hanger #4	56551715	156A Hanger 3 Meter #1 (116)	17528277
214 Fire Department	82923982	156B Hanger 3 Meter #2 (117)	17638230
216 Rapcon Tower (100)	79029530	542 Supply	62012451
219 Command Post (101)	64770228	549 FTD (118)	71509525
224 WEG (FWS), Maint/Admin	56551701	546 Flight Simulator A/C #1 (119)	71423418
Tyndall Teller	83780940	546 Flight Simulator	56551716
531 Dive School (122)	78836526	546 Physiological Lab	56666313
522 Base Shops (Eagle Repair) (124)	31002711	548 Deputy Commander of Maint (120)	64648297
164 Fighter Training Sq (125)	58746890	560 Maintenance Shop	56551711
126 Egress Maint (126)	71448199	559 Allied Trades(Motor Pool) (121)	76477415
182 Hanger 1 (127)	01232514	225WEG (FWS), Admin/Oper	56551699
186 CRS (127A)	71509526	9480 RHS, HQ Admin (153)	84867381
503 ACMI Meter 'A' (129)	78945114	New Fire Station	

503 ACMI Meter 'B' (129)	79947035	#1 Wherry Feeder	84298150
505	1232515	#2 Swanee Feeder	84298153
501 Sq Ops	56666317	#3 Hospital Feeder	84298232
585 325 Training Sq (129A)	84830881	#4 Mississippi Feeder	8498154
588 F-22 Flight Simulator	82851406	#5 Capehart	81207156
431 1st Training Sq	38850229	6027 CE Sign Shop (138)	78569054
432 1st Training Sq (130)	70483805	8522 Drone Weights and Balance (97)	76537651
453 CE Ext Electric Shop (131)	55149038	8533 Drone Storage (98)	78569053
462 PMEL (132)	76537668	8525 Drone Control House (99)	76537660
421 CE (133)	64770277	9476 Red Horse Sq(RHS)-Storage (141)	84867387
485 SOCC (135)	58233825	9490 RHS-Showers/Latrine (142)	84867386
486 SOCC (135A)	83585467	9466 RHS-Classroom, Mech Shop (143)	84867388
400 Base Fuels Management (136)	76353392	9468 RHS-Classroom, Elec Shop	84867383
6048 POL Storage (137)	79190014	9470 RHS-Classroom, Water Shop (145)	84867385
6029 MWR Recycling (137A)	81327209	9470 (146)	84867389
9457 Fire Research Lab (150)	84857378	9452 RHS, Vehicle Maint-Dispatch (147)	84867384
Water tower (151)	84867382	9458 Water Treatment Plant (148)	84867377
9484 RHS, Classroom (152)	84867380	9456 Vehicle Maint Shop (149)	84867379

### 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 and J1.6 below.

**TABLE 6**  
New Secondary Meters  
Electric Distribution System Tyndall AFB

Meter Location	Meter Description
Bldg 852 Pediatric Clinic	Three phase 480/277 V
Bldg 1404 Family Practice Clinic	Three phase 480/277 V
Bldg 1406 Management Care	Three phase 480/277 V
Bldg 1703 Water and Waste	Single phase 120/240 V
Bldg 822 SC, IN, & MO Offices	Three phase 208/120 V

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

Name: 325 CES/CERF  
Address: 119 Alabama Ave. Stop 42  
TYNDALL AFB 32403-5005  
Phone number: (850)-283-2177

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

Name: 325 CES/CEOE  
Address: 119 Alabama Ave. Stop 42  
TYNDALL AFB 32403-5005  
Phone number: (850)-283-4611

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

Name: 325 CES/CEOE  
Address: 119 Alabama Ave. Stop 42  
TYNDALL AFB 32403-5005  
Phone number: (850)-283-4611

4. System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25<sup>th</sup> of each month for the previous month. System efficiency reports shall be submitted to:

Name: 325 CES/CEOE  
Address: 119 Alabama Ave. Stop 42  
TYNDALL AFB 32403-5005  
Phone number: (850)-283-4611

## J1.7 Energy Saving Projects

IAW Paragraph C.3, Requirement, the following projects have been implemented on the distribution system by the Government for energy conservation purposes.

Tyndall has two ongoing contracts to install more energy efficient equipment to reduce Tyndall energy consumption. A portion of these contracts is to include natural gas reductions as part of each task orders. The two contracts are with Gulf Power and TECO-

Peoples Gas as part of the governments GSA area wide service contracts. Under these contracts, Tyndall is installing ground source heat pump systems that eliminate the need for natural gas for heat. These heat pumps will provide waste heat which can be recovered and eliminate gas requirements for boilers. It is conceivable that natural gas requirements at Tyndall will be reduced by 25% over the next several years.

There are no current projects planned under the energy program, which will affect the electrical distribution system. If any future projects are planned, the contractor will be notified prior to implementation. Contractor will be involved in the planning stages of all projects affecting distribution.

## J1.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Tyndall AFB boundaries.

## J1.9 Off-Installation Sites

No off-installation sites are included in the sale of the Tyndall AFB electric distribution system.

## 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 Tyndall AFB

Location	Description
NONE	

## J1.11 Government Recognized System Deficiencies

**Table 8** provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Tyndall AFB electric distribution system. If the system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewal and Replacement Plan process and will be recovered through [Schedule L-3](#). Renewal and Replacement projects will be recovered through [Sub-CLIN AB](#).

**TABLE 8**  
System Deficiencies  
Electric Distribution System Tyndall AFB

Facility Number	Title	Description
9700	RPLC 9700 SUBSTATION	Replace 9700 Substation. Remove 3-75KVA Transformers (12470 V/120/240 V) located near Build 9704. Install new 225 KVA Pad Mounted XFMR to feed buildings 9704, 9706.
1238	5 RECLOSERS AFTER SUBSTATION	Reclosers sense and interrupt fault currents and automatically restore service after momentary outage. Impact: During a power outage due to the above mentioned, it will take longer (many hours) to restore the system by our High Voltage crew.
MAIN GATE	UPGRADE LIGHTING TYNDALL DR GATE	Replace lighting at Tyndall Dr. Gate.
SUW AVE	RPLC ELECT DIST SYS, SWANEE PH II	Complete. Replace a portion of the primary Overhead distribution system by new Underground electrical distribution system. From Pole S-60 all the way thru Swanee Ave till pole S-181. Includes Minnesota and GA Avenue. Approx 6000 LF.
1280	REPLACE SERV XFMS & DUCTBANK (1280 AREA)	Replace Service transformers and duct bank at 1280 area
FL AVE	RPLC ELECT DIST SYS, FL/LA/AL	Replace primary Overhead Electrical Distribution lines by New Underground Electrical Distribution System. Install pad mounted switchgears. Project includes all Overhead lines in Florida Ave , Lou and Ala. From Pole S241 to S324.
	RPLC ELECT DIST SYS, 6000 and Flight line	Replace Overhead to underground at 6000 area. Includes 600 area, Flight line (Wherry feeder) Approximately 8400 LF
ILL AVE	RPLC PRIMARY FEEDER, Illinois Ph 2	Replace primary Overhead Electrical Distribution lines by New Underground Electrical Distribution System. Includes all Wherry feeder from Substation to Bay County pumps etc.
MULTI	RPLC ELECT SERV LATERAL, PH III	Replace Overhead Electric Distribution by Underground distribution systems Includes Alert Area and, 7000 area (Ammo).
MULTI	RPLC ELECT SERV LATERAL, PH II	Continues Mississippi HWG 98 from pole M 546 to Silver flag, Drone, Wright Lab, and HWY 98 after Wright Lab.

ILL AVE	RPLC PRIMARY FEEDER, ILL Phase I	Replace primary Overhead Electrical Distribution lines by New Underground Electrical Distribution System. Illinois Phase I includes all Overhead Primary loop from Mississippi thru Illinois Ave until intersection w Suwannee Rd. Includes most of the Hospital feeder and Mississippi on Illinois Avenue. Approximately 10,000 LF
MISS AVE	RPLC PRIMARY FEEDER, MISS AVE	Replace primary Overhead Electrical Distribution lines by New Underground Electrical Distribution System. Includes all Overhead Primary from Substation pole M-1 thru all Mississippi Rd including 1700 area and 1800 area.
MULTI	RPR ELECT DIST SYS, B/1027,219	Replace 2 sets of Overhead Xfmrs (150KVA & 225KVA) with one 500KVA pad mount xfmr. Provide a new underground service feeder from new xfmr to MDP.
	REPAIR OVERHEAD ELECT DIST SYS. SKY10	Remove Overhead electrical distribution systems lines and replace them by an Underground Electrical Dist Systems at SKY Ten area
MULTI	RPLC ELECT SERV LATERAL, PH I	Replace all Overhead electrical distribution System by new underground. Includes all 1200 area part of the Hospital feeder
MISS AVE	RPLC FEEDER, MISS, H98	Replace primary Overhead Electric Distribution lines by New Underground Electric Distribution System. Project includes all Overhead lines from Mississippi Poles starting with Pole M257, Hwy 98, 8000 area, and 9000 area.
SABER DR	Replace Capehart feeder (SABER Dr)	Replace primary Overhead Electrical distribution lines by New Underground Electrical distribution System. Install pad mounted switchgears. Project includes all Prim Overhead lines Capehart feeder, SABER Dr, Bay View, Bonita Bay.
Elect. Dist. System	REPLACE OLD RECLOSERS	Replace old reclosers McGraw Edison (Form 3A) located on the following sites: 6000 Area Pole W28, Hospital Pole H-8, Hospital Pole 101, Mississippi Pole M178, Mississippi (Pole M243, it goes to Silver Flag), Suwannee Pole S-132 and Wherry Capehart Pole C-94
3010	RPLC ELEC DIST SYS, GOLF COURSE	Replace primary Overhead Electrical distribution lines by New Underground Electrical distribution System from pole C472 to pole C561 at Golf Course and Bonita Bay.