

ATTACHMENT J4

Wisconsin ANG 128th ARW Electric Distribution System

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J4 Wisconsin ANG 128th ARW Electric Distribution System

J4.1 Wisconsin ANG 128th ARW Overview

The Wisconsin Air National Guard (ANG) 128th Air Refueling Wing (ARW) is located about 6.5 miles south of the center of Milwaukee and 2.5 miles west of Lake Michigan. The 128th ARW's mission is to provide areal in-flight refueling and passenger/cargo transportation. The base currently flies KC-135 Air Refueling Tankers. The 128th impacts the surrounding Milwaukee area with over \$103 million in annual expenditures.

The 128th ARW employs 980 Air Guard personnel, 294 technicians, and 39 civilians. The base maintains approximately 26 buildings and structures with the breakdown being 16 industrial and 10 administrative buildings. The Wisconsin Air National Guard was established in 1947 and located at Mitchell Field.

The 128th ARW occupies 63.4 acres leased from the State of Wisconsin. The larger parcel, 58.5 acres is located east of the General Mitchell International Airport north-south runway. It houses the apron, hangars, and most of the base operation buildings. The smaller parcel, 4.9 acres, is located to the west of the General Mitchell International Airport north-south runway, and is adjacent to the north side of the 440th Air Force Reserve Station. The smaller parcel of land is referred to as the Guard West and it houses an office building and a maintenance facility. Additional land adjacent to the east side of the base has been acquired to allow expansion in the future. This land is currently undeveloped and separated from the main portion of the base by a large railroad embankment.

J4.2 Electric Distribution System Description

J4.2.1 Electric Distribution System Fixed Equipment Inventory

The Wisconsin ANG 128th ARW 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.

Specifically excluded from the electric distribution system privatization are:

- Airfield Lighting
- Ramp Lighting
- Generators
- Electrical system at Guard West area
- Security lighting and parking lot lights that are powered by electricity directly from building electrical circuits.

J4.2.1.1 Description

We Energies supplies the electrical commodity to the 128th Wisconsin Air National Guard ARW. The 13.2-kilovolt (kV) distribution line enters the base and passes through a We Energies master meter into a Base owned substation located on Tanker Avenue on the east side of the 128th ARW. The primary circuits leave the substation on an overhead circuit heading south and on an underground circuit going north. Two transformers in the substation also directly feed the hangars to the west. The electrical distribution system at the Guard West area is already privatized and is not included in this contract.

Government ownership starts at the demand side of the master meter. From the substation three-phase, three-wire circuits serve the Base's facilities. The distribution system contains three-phase transformers ranging from 150 to 500 kilovolt amperes (kVA), single-phase transformers ranging from 15 to 75 kVA, utility poles, switches, fuses, and streetlight fixtures.

Construction dates for the underground and overhead circuits, and other system components, range from the 1960s to the 2000s. The overall system appears to be in fair condition, although some of it is showing signs of aging.

J4.2.1.2 Inventory

Table 1 provides a general listing of the major electric distribution system fixed assets for the Wisconsin ANG 128th ARW electric distribution system included in the sale.

TABLE 1
Fixed Inventory
Electric Distribution System Wisconsin ANG 128th ARW

Item	Size	Quantity	Unit	Approximate Year of Construction
<u>Copper Wire</u>				
Conductor 3 ph, 3 w	#6 Cu	6,996	SCLF	1985
Conductor 3 ph, 3 w	#6 Cu	758	SCLF	1969

Item	Size	Quantity	Unit	Approximate Year of Construction
Conductor 3ph, 3w, in conduit	#4/0 Cu	7,200	SCLF	1995
Conductor 3ph, 3w, in conduit	#4/0 Cu	19,200	SCLF	2000
<u>Ductbank</u>				
Ductbank, PVC, 1X1		2,400	LF	1995
Ductbank, PVC, 1X1		6,400	LF	2000
<u>Light Poles</u>				
Galvanized light pole	20'	8	EA	1995
Galvanized light pole	30'	12	EA	1995
Galvanized light pole	30'	21	EA	2000
Galvanized light pole	20'	1	EA	2000
Luminaire, 250W HPS		24.0	EA	1995
Luminaire, 250W HPS		34	EA	2000
Luminaire, 150W HPS w/ photocell		22	EA	2000
Luminaire, 150W HPS w/ photocell		13	EA	1995
<u>Electric Poles</u>				
Wood power pole	35'	34	EA	1969
Wood crossarms	6'	34	EA	1969
Primary Cable terminations and lugs		6	EA	1965
Primary Cable terminations and lugs		6	EA	1975
Primary Cable terminations and lugs		6	EA	1985
Primary Cable terminations and lugs		24	EA	1995
<u>Oil Filled Pad Mounted Transformers</u>				
3-Phase Transformer	500.0	1	EA	1965
3-Phase Transformer	500.0	1	EA	1975
3-Phase Transformer	500.0	1	EA	1985
3-Phase Transformer	500.0	2	EA	1995
3-Phase Transformer	225.0	1	EA	1995
3-Phase Transformer	150.0	1	EA	1995
Transformer pad		20	SF	1965
Transformer pad		25	SF	1975
Transformer pad		25	SF	1985
Transformer pad		100	SF	1995
<u>Oil Filled Pole Mounted Transformers</u>				

Item	Size	Quantity	Unit	Approximate Year of Construction
1-Phase Transformer	75	3	EA	1965
1-Phase Transformer	75	3	EA	1985
1-Phase Transformer	50	3	EA	1975
1-Phase Transformer	37.5	3	EA	1985
1-Phase Transformer	37.5	3	EA	1995
1-Phase Transformer	15	3	EA	1975
Transformer, Platform mount, 3ph 120/208V	500.0	1	EA	1975
Transformer, Platform mount, 3ph 120/208V	500.0	1	EA	1985
Guys, anchors, and hardware		9	EA	1969
Guys, anchors, and hardware		2	EA	1985
<u>Switches</u>				
Switch, pole mount, 3-ph, manual gang		4	EA	1975
Switch, pad mount, 3-ph, load break		1.0	EA	1995
Fused cutout		12	EA	1960
Fused cutout		24	EA	1975
Fused cutout		24	EA	1985
Fused cutout		21	EA	1995
<u>Driven Grounds</u>				
Grounding Rod	½"	6	EA	1965
Grounding Rod	½"	5	EA	1975
Grounding Rod	½"	10	EA	1985
Grounding Rod	½"	7	EA	1995
<u>Lightening Arrestors</u>				
Lightning arrestor		3	EA	1960
Lightning arrestor		7	EA	1975
Lightning arrestor		7	EA	1985
Lightning arrestor		3	EA	1995

Notes:

AWG = American Wire Gauge

CU = copper

EA = each

HPS = High Pressure Sodium

LF = linear feet

Nom kVA = nominal kilovolt-amperes

ph – phase

PVC = Polyvinyl Chloride

SCLF = Single Conductor Linear Feet

V = volts

w = wire

Item	Size	Quantity	Unit	Approximate Year of Construction
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J4.2.2 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 Wisconsin ANG 128th ARW

Qty	Item	Make/Model	Description	Remarks
None				

TABLE 3

Specialized Vehicles and Tools

Electric Distribution System Wisconsin ANG 128th ARW

Description	Quantity	Location	Maker
None			

J4.2.3 Electric Distribution System Manuals, Drawings, and Records

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

TABLE 4

Manuals, Drawings, and Records

Electric Distribution System Wisconsin ANG 128th ARW

Qty	Item	Description	Remarks
1	Drawing	Electrical distribution system plan view	AUTOCADD
1 set	Various Documents	Various electrical distribution system manuals, drawings, and records files.	The items included in the transfer of ownership are located in the Technical Library.

J4.3 Specific Service Requirements

The service requirements for the Wisconsin ANG 128th ARW electric distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Wisconsin ANG 128th ARW electric distribution system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

- The Contractor shall provide monthly meter reading reports in accordance with Paragraph J3.6, and that meet the following requirements:

The Contractor shall keep a meter book with monthly consumption and demand (if applicable) for each meter reading. Meter books shall also include building address or facility number, meter number, previous month readings, current month readings, multipliers for each meter, total monthly consumption, points of contact for meter questions, and procedure for converting meter reads into consumption (including multipliers). The Government may provide a meter reading report format to be used for meter readings.

J4.4 Current Service Arrangement

We Energies is the electric commodity provider to the 128th ARW. The FY2002 annual electric usage at the 128th was 3,684,160 kilowatt hours (kWh). The average monthly usage was 307,013 kWh with the maximum occurring in February 2002 with 343,389 kWh and the minimum occurring in October 2001 with 234,262 kWh.

J4.5 Secondary Metering

J4.5.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3 and J4.6 below.

TABLE 5
Existing Secondary Meters
Electric Distribution System Wisconsin ANG 128th ARW

Meter Location	Meter Description
None	

J4.5.2 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 J4.6 below.

TABLE 6
New Secondary Meters
Electric Distribution System Wisconsin ANG 128th ARW

Meter Location	Meter Description
Install new secondary meters on each building, and lift station, except Building 301 and Building 302.	Provide 24 meters that function properly with this electrical system and meet the standard of practice and code for use in this setting.

J4.6 Monthly Submittals

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

1. Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to:

Name: Department of Military Affairs
Address: P.O. Box 14587, Madison, WI 53714-0587
Phone number: (608) 242-3160

And Send Copy to:

Name: 128 CES/CEZ
Address: 1685 E Grange Ave, Milwaukee, WI 53207-6151
Phone number: (414) 944-8749

2. Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

Name: Department of Military Affairs
Address: P.O. Box 14587, Madison, WI 53714-0587
Phone number: (608) 242-3160

And Send Copy to:

Name: 128 CES/CEZ
Address: 1685 E Grange Ave, Milwaukee, WI 53207-6151
Phone number: (414) 944-8749

3. **Meter Reading Report.** The monthly meter reading report shall show the current and previous month readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to:

Name: Department of Military Affairs

Address: P.O. Box 14587, Madison, WI 53714-0587

Phone number: (608) 242-3160

And Send Copy to:

Name: 128 CES/CEZ

Address: 1685 E Grange Ave, Milwaukee, WI 53207-6151

Phone number: (414) 944-8749

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

Name: Department of Military Affairs

Address: P.O. Box 14587, Madison, WI 53714-0587

Phone number: (608) 242-3160

And Send Copy to:

Name: 128 CES/CEZ

Address: 1685 E Grange Ave, Milwaukee, WI 53207-6151

Phone number: (414) 944-8749

J4.7 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.

- None

J4.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Wisconsin ANG 128th ARW boundaries.

J4.9 Off-Installation Sites

No off-installation sites are included in the sale of the Wisconsin ANG 128th ARW electric distribution system.

J4.10 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 Wisconsin ANG 128th ARW

Location	Description
None	

J4.11 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 Wisconsin ANG 128th ARW 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 Wisconsin ANG 128th ARW

Project Location	Project Description
South and East Fence Lines	Install security lighting along these fence lines. Project details are presented in the Technical Library at the 128 th ARW installation. The project generally includes light fixtures, poles, transformers, conductors, and other appurtenances as needed to provide security lighting similar to that which is present along east fence line of base.