

ATTACHMENT J1

Niagara Falls Air Reserve Station Electric Distribution System

J1 NIAGARA FALLS ARS ELECTRIC DISTRIBUTION SYSTEM

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J1 Niagara Falls ARS Electric Distribution System

J1.1 Niagara Falls ARS Overview

The Niagara Falls Air Reserve Station (ARS) is home to the 914th Airlift Wing (AW) of the Air Force Reserve and the 107th Air Refueling Wing (ARW) of the New York Air National Guard. The 914th AW is the host unit at the Niagara Falls ARS and the 107th ARW is the largest tenant. The installation is located approximately 6 miles east of Niagara Falls, New York and 20 miles north of Buffalo, New York. The installation occupies 985 acres on the northern part of the Niagara Falls International Airport in Niagara County, New York. The installation leases 38.71 acres from the People of the State of New York and 37.1 acres from the Niagara Frontier Transportation Authority.

The 914th AW has an economic impact of over \$76 million on the surrounding area. The working population consists of 1,117 Reservists and 397 full time personnel, of which 209 are civilians. The 914th AW's mission is to provide airland and aerial delivery of troops, supplies, and equipment using C-130 H-3 Hercules cargo aircraft carriers. The base occupies 82 buildings on the Niagara Falls ARS including 62 buildings dedicated to industrial activities and 20 to administrative activities.

The 107th ARW has an economic impact of over \$61 million on the surrounding area. The working population consists of 552 assigned personnel, 260 active Reservists and military technicians, and 18 other employees. The 107th ARW's mission is to provide in-flight refueling services for cargo and passenger movements using KC-135 Stratotankers. The base occupies 22 buildings on the Niagara Falls ARS including 16 buildings dedicated to industrial activities and 6 to administrative activities.

The Niagara Falls International Airport opened in 1928 and was joined by the military in 1946. The base has expanded several times over the years. The base has some Visiting Officer Quarters but no permanent on-base military family housing. No significant growth or reduction in building square footage or personnel is planned.

J1.2 Electric Distribution System Description

J1.2.1 Electric Distribution System Fixed Equipment Inventory

The Niagara Falls ARS 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:

- Parking Lot & Security Lights that are fed directly from Buildings
- Emergency generators
- Building 850 (supplies electric to Mast Lights)
- Airfield lighting, apron lights, airfield lighting vaults, and all associated equipment. This includes Building 891 and the FAA transformers in Building 724.

J1.2.1.1 Description

Niagara Mohawk supplies electricity to the Niagara Falls ARS through two feeds. The first feed is for the 914th side of the installation. A 13.2 kV line passes through a Niagara Mohawk owned master meter and enters Air Force owned cabinets containing switchgear and fuses in Building 891. Air Force ownership of the line starts at the demand side of the master meter. Building 891 is a multi-use building that will be retained by the installation after privatization. The second feed is for the 107th side of the installation. The 13.2kV power line enters the base underground near the 107th Guardian Street entrance on Tuscarora road. The line enters an Air Force owned outdoor electric cabinet and passes through a Niagara Mohawk owned master meter. Air Force ownership of the power line starts at the demand side of the master meter.

The existing system consists of primarily three-phase overhead and three-phase underground primary lines installed in 1995. Most of the underground lines located on the 107th ARW side of the installation are encased in a concrete ductbank that contains multiple conduits. The existing system on the 914th side of the installation is primarily overhead lines with pole mounted transformers and pad mounted transformers. The meters on both sides of the installation are included in the privatization contract, including meters located inside buildings. Access will be granted to allow work to be accomplished as needed on lines and meters located inside buildings. The 914th AW and the 107th ARW systems are connected at a switch located on the line that divides the 914th AW from the 107th ARW. The switch is gang locked open to prevent the circuit from closing and causing injuries and damage to the electrical system. The switch can only be closed if an authorized representative of Niagara Mohawk is present.

J1.2.1.2 Inventory

Table 1 provides a general listing of the major electric distribution system fixed assets for the Niagara Falls ARS electric distribution system included in the sale.

TABLE 1
Fixed Inventory
Electric Distribution System Niagara Falls ARS

Item	Size	Quantity	Unit	Approximate Year of Construction
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TABLE 1
Fixed Inventory
Electric Distribution System Niagara Falls ARS

Item	Size	Quantity	Unit	Approximate Year of Construction
<u>Overhead Conductor</u>		AWG	Length (ft)	
Overhead Conductor 3 Phase, 4w	#10	30	SCLF	1995
Overhead Conductor 3 Phase, 4w	#2	6,498	SCLF	1995
Overhead Conductor 3 Phase, 4w	#1	3,330	SCLF	1995
Overhead Conductor 3 Phase, 4w	#1/0	56,520	SCLF	1995
Overhead Conductor 3 Phase, 4w	#8	330	SCLF	1995
Overhead Conductor 3 Phase, 4w	#6	2,970	SCLF	1995
Overhead Conductor 3 Phase, 4w	#4	40,410	SCLF	1995
Overhead Conductor 3 Phase, 4w	#2	1,950	SCLF	1995
Overhead Conductor 3 Phase, 4w	#1/0	1,800	SCLF	1995
Overhead Conductor 3 Phase, 4w	#2/0	1,890	SCLF	1995
Overhead Conductor 3 Phase, 4w	#3/0	2,730	SCLF	1995
Overhead Conductor 3 Phase, 4w	#4/0	960	SCLF	1995
Overhead Conductor 3 Phase, 4w	#350	1,440	SCLF	1995
Overhead Conductor 3 Phase, 4w	#500	2,160	SCLF	1995
<u>Underground Conductor</u>				
Underground Conductor 3ph, 4w	#2	1,620	SCLF	1995
Underground Conductor 3ph, 4w	#1	3,960	SCLF	1995
Underground Conductor 3ph, 4w	#2	3,450	SCLF	1995
Underground Conductor 3ph, 4w	#4/0	12,480	SCLF	1995
<u>Concrete Encased PVC Ductbank</u>		In		
Ductbank (2x2)	4.0	5377	LF	1995
<u>Primary Cable Terminators</u>				
Primary Cable Terminations and Lugs	#4/0	60	EA	1995
Primary Cable Terminations and Lugs	#2	6	EA	1995
Primary Cable Terminations and Lugs	#1	6	EA	1995
Primary Cable Terminations and Lugs	#2	52	EA	1995
<u>Pole Mounted Transformers</u>		Nom kVA	No.	
1-Phase Transformer	15	42	EA	1995
1-Phase Transformer	25	13	EA	1995
1-Phase Transformer	37.5	15	EA	1995
1-Phase Transformer	50	39	EA	1995

TABLE 1
Fixed Inventory
Electric Distribution System Niagara Falls ARS

Item	Size	Quantity	Unit	Approximate Year of Construction
1-Phase Transformer	75	6	EA	1995
<u>Pad Mounted Transformers</u>				
	Nom kVA	No.		
3-Phase Transformer	25	1	EA	1995
3-Phase Transformer	45	1	EA	1995
3-Phase Transformer	75	3	EA	1995
3-Phase Transformer	112.5	1	EA	1995
3-Phase Transformer	112.5	1	EA	1995
3-Phase Transformer	150	3	EA	1995
3-Phase Transformer	225	2	EA	1995
3-Phase Transformer	300	8	EA	1995
3-Phase Transformer	500	7	EA	1995
3-Phase Transformer	750	1	EA	1995
3-Phase Transformer	1000	1	EA	1995
Transformer Pad	—	29	EA	1995
Driven Grounds	—	319	EA	1995
<u>Utility Poles</u>				
	Height (ft)	No.		
Utility Poles	25'	1	EA	1995
Utility Poles	35'	23	EA	1995
Utility Poles	40'	136	EA	1995
Utility Poles	45'	63	EA	1995
Utility Poles	40'	10	EA	1995
Utility Poles	50'	1	EA	1995
Cross Arms	—	236	EA	1995
Post Insulator	—	282	EA	1995
Lightning Arrester	—	166	EA	1995
Fused Cutouts	—	184	EA	1995
Aluma form mounting hardware	—	56	EA	1995
Guys, Anchors, and Hardware	—	72	EA	1995
Light Mounting Arm	—	60	EA	1995
<u>Meters</u>				
Meter Center	—	1	EA	1995
Meters	120/208V	32	EA	1995
<u>Switches</u>				
	Type	No.		

TABLE 1
Fixed Inventory
Electric Distribution System Niagara Falls ARS

Item	Size	Quantity	Unit	Approximate Year of Construction
Disconnect Switch	—	3	EA	1995
Indoor switchgear fused	—	3	EA	1995
Indoor switchgear metering	—	1	EA	1995
Pad mount fused disconnect	—	18	EA	1995
Outdoor switchgear fused disconnect	—	3	EA	1995
Outdoor switchgear aux. Compartment	—	1	EA	1995
Termination Cabinet	—	15	EA	1995

Notes:

AWG = American Wire Gauge

EA = each

LF = linear feet

Nom kVA = nominal kilovolt-amperes

ph=phase

SCLF= Single Conductor Linear Feet

V = volts

w=wire

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 Niagara Falls ARS

Qty	Item	Make/Model	Description	Remarks
	There are no spare parts to transfer with the sale of the NFARS electrical system.			

TABLE 3
Specialized Vehicles and Tools
Electric Distribution System Niagara Falls ARS

Description	Quantity	Location	Maker
There are no specialized vehicles or tools to transfer with the sale of the NFARS electrical system.			

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.

TABLE 4

Manuals, Drawings, and Records

Electric Distribution System Niagara Falls ARS

Qty	Item	Description	Remarks
1	Construction drawings for 914th upgrade	Drawings showing the recently installed new electrical system for the 914th will be provided.	
1	Construction drawings for 107th upgrade	Drawings showing the recently installed new electrical system for the 107th will be provided.	
	Manuals	Assorted equipment manuals that are available will be provided in the technical library and turned over to the winning contractor.	

J1.3 Specific Service Requirements

The service requirements for the Niagara Falls ARS electric distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Niagara Falls ARS 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 J1.6 and Section C3.3, and that meet the following requirements:

The Contractor shall keep a 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 reading, 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.

- Some of the utility system described in this document are located in restricted areas. Access to the restricted areas will be available only with an approved escort by base security.
- Provide marks on the ground to show locations of underground distribution lines on an as needed basis as other entities request. Mark utilities in the field to show location and depth.
- Contact Niagara Mohawk and arrange for an authorized representative from Niagara Mohawk to be present whenever work is done on the switch that connects the two electrical systems (914th and 107th). This switch can only be operated with a representative from Niagara Mohawk present. Operating the switch under certain conditions will damage the electrical system.

- The electrical distribution system ductbanks include multiple conduits. These ductbanks are used for both electric distribution and communications. The government reserves the right to use all conduits that are not currently used for electrical distribution. The contractor shall allow access to the ductbanks for the purpose of installing and maintaining government owned non-electrical systems in these conduits.
- The Contractor shall conform to the base spill plan (copy located in the Technical Library) and provide a copy to their EPCRA report(s) to the base on request.
- Grounds and structures areas sold as part of this electrical system shall be maintained to meet base standards.

J1.4 Current Service Arrangement

Niagara Mohawk Power is the electric commodity provider to the Niagara Falls ARS. The FY2002 annual electric usage was 9,394 MWh. The average monthly usage was 782,858 kWh with the maximum occurring in August 2002 with 896,000 kWh and the minimum occurring in October 2001 with 682,500 kWh.

J1.5 Secondary Metering

J1.5.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3 and J1.6 below.

TABLE 5
Existing Secondary Meters
Electric Distribution System Niagara Falls ARS

Meter Location	Meter Description
B202 – BE Maintenance Shop	Basic Meter, 120/208V, 125 Amps
B204 – Communication Facility	Basic Meter, 120/208V, 125 Amps
B206 – Recreation Center	Basic Meter, 120/208V, 125 Amps
B300 – Lodging	Basic Meter, 120/208V, 125 Amps
B314 - Open Mess	Basic Meter, 120/208V, 125 Amps
B316 – Dis Prep/CATM	Basic Meter, 120/208V, 125 Amps
B317 – Communications	Basic Meter, 120/208V, 125 Amps
B320 – Communications	Basic Meter, 120/208V, 125 Amps
B426 – BE Maintenance Shop	Basic Meter, 120/208V, 125 Amps
B600 – Base Supply	Basic Meter, 120/208V, 125 Amps

TABLE 5

Existing Secondary Meters
Electric Distribution System Niagara Falls ARS

Meter Location	Meter Description
B618 – Vehicle Operations	Basic Meter, 120/208V, 125 Amps
B620 – Vehicle Maintenance Shop	Basic Meter, 120/208V, 125 Amps
B624 – BE Paving Shop	Basic Meter, 120/208V, 125 Amps
B707 – Fuel Systems Dock	Basic Meter, 120/208V, 125 Amps
B724 – Water Pump Station	Basic Meter, 120/208V, 125 Amps
B729 – Water Supply Bldg.	Basic Meter, 120/208V, 125 Amps
B805 – Exchange Sales Store	Basic Meter, 120/208V, 125 Amps
B806 – Data Processing	Basic Meter, 120/208V, 125 Amps
807 – SQ Operations	Basic Meter, 120/208V, 125 Amps
B827 – Consolidated MX Facility	Basic Meter, 120/208V, 125 Amps
B828 – AFFF Pump House	Basic Meter, 120/208V, 125 Amps
B850 – Maintenance Hangar	Basic Meter, 120/208V, 125 Amps
B904 – Base Supply	Basic Meter, 120/208V, 125 Amps
B906 – A/SE	Basic Meter, 120/208V, 125 Amps
B907 – HG Maintenance	Basic Meter, 120/208V, 125 Amps
B912 – Squad Ops	Basic Meter, 120/208V, 125 Amps
B915 – Maintenance Docks	Basic Meter, 120/208V, 125 Amps
B923 – AGE Storage	Basic Meter, 120/208V, 125 Amps
B936 – Medical Training	Basic Meter, 120/208V, 125 Amps
Ballpark	Basic Meter, 120/208V, 125 Amps
TACAN	Basic Meter, 120/208V, 125 Amps
VASI	Basic Meter, 120/208V, 125 Amps

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 Niagara Falls ARS

Meter Location	Meter Description
207 – Squad Ops	Provide meter that functions properly with this electrical system and meets the standard of practice and code for use in this setting.
208 – Survival Equipment Shop	Same as Building 207
304 – VOQ	Same as Building 207
306 – VOQ	Same as Building 207
308 – VOQ	Same as Building 207
310 – VOQ	Same as Building 207
316 – Combat Arms Training	Same as Building 207
403 – Base Civil Engineer	Same as Building 207
404 – Credit Union	Same as Building 207
502 – Dorm, VAQ	Same as Building 207
504 – Dorm, VAQ	Same as Building 207
506 – Dining Hall	Same as Building 207
508 – Dorm, VAQ	Same as Building 207
700 – Fire Station	Same as Building 207
707 – Maintenance Dock	Same as Building 207
731 – Sewage Pump Station	Coordinate meter installation with new owner of this wastewater pump station Same as Building 207
802 – Clinic	Same as Building 207
803 – Chapel	Same as Building 207
804 – Res Forces AE Training	Same as Building 207
807 – SQ Operations	Same as Building 207
810 – Aerial Port Training Facility	Same as Building 207
815 – Sewage Pump Station	Coordinate meter installation with new owner of this wastewater pump station Same as Building 207
820 – Munitions	Same as Building 207
851 – Heating Facility	Same as Building 207
855 – Gymnasium	Same as Building 207
860 – Theater	Same as Building 207
891 – Water Supply/Electric Substation	Install new meter in this building to monitor cost for electricity to the water utility. Same as Building 207

TABLE 6

New Secondary Meters

Electric Distribution System Niagara Falls ARS

Meter Location	Meter Description
918 – POL	Basic meter, 120/208V, 125Amps
901 – Res Forces Training	Basic meter, 120,208V, 1600 Amps
902 – Shp Acft Gen Purp	Basic meter, 480/277V, 1000KVA
420 – Fuel Pump Station	Same as Building 207
421 – Petroleum Operations Bldg.	Same as Building 207
425 – BE Maintenance Shop	Same as Building 207
618 – Vehicle OPS	Same as Building 207
624 – BE Paving Facility	Same as Building 207
729 – Water Supply Bldg.	Same as Building 207

J1.6 Monthly Submittals

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

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

Name: 914th AW/CEC
Address: 2405 Franklin Drive, Niagara Falls, New York 14304-5063
Phone number: (716) 236-3117

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: 914th AW/CEC
Address: 2405 Franklin Drive, Niagara Falls, New York 14304-5063
Phone number: (716) 236-3117

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: 914th AW/CEC
Address: 2405 Franklin Drive, Niagara Falls, New York 14304-5063
Phone number: (716) 236-3117

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: 914th AW/CEC
 Address: 2405 Franklin Drive, Niagara Falls, New York 14304-5063
 Phone number: (716) 236-3117

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. Energy conservation projects are not being implemented at Niagara Falls ARS at this time.

J1.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Niagara Falls ARS boundaries.

J1.9 Off-Installation Sites

No off-installation sites are included in the sale of the Niagara Falls ARS 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 Niagara Falls ARS

Location	Description
None.	The government does not require connections or disconnections during the transition period.

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 Niagara Falls ARS 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 Niagara Falls ARS

Project Location	Project Description
There are no deficiencies known at the NFARS	