**ATTACHMENT J1**

# Minneapolis-St. Paul ARS Electric Distribution System—Area N and Area D



**List of Tables**

# J1 Minneapolis-St. Paul ARS Electric Distribution System - Area D and Area N

## J1.1 Minneapolis-St. Paul ARS Overview

The Minneapolis-St. Paul Air Reserve Station (ARS) is located at Minneapolis-St. Paul International Airport in Minneapolis, Minnesota. The base, as well as much of the surrounding area, is on the site of the Fort Snelling reservation, an 1827 Army post built at the confluence of the Minnesota and Mississippi Rivers. The ARS is the home of the 934th Airlift Wing, an Air Force Reserve unit, and host to the 133rd Airlift Wing, a Minnesota Air National Guard unit. Over the years, the Fort Snelling reservation has been parceled among many federal agencies, including the US Army Reserve, the US Navy Reserve, and the Fort Snelling National Cemetery. The Minneapolis-St. Paul ARS property is comprised of:

- Area A, the site of the Officer's Club
- Area B, the site of the 934th's small arms range
- Area D, which houses the 133rd Airlift Wing
- Area N, which houses the 934th Airlift Wing.

Minneapolis-St. Paul ARS has 93 operational buildings among the four composite areas. These are primarily aviation maintenance, training and administrative facilities. There are no permanent party dormitories or housing. The Metropolitan Airport Commission (MAC) operates the civil side of the airport, including its four runways, and provides fire and rescue services for the 934th and 133rd.

The area encompassing the ARS consists of 257 acres on four non-contiguous parcels of land owned by the Federal Government. Both Areas D and N (MNANG and AFRC respectively) are bordered by the airport to the south, and East 58th Street (Route 62/55) and a frontage road to the north. They are separated by the US Army Reserve Center and connected by a road circling the airport's northeast-southwest runway. Each has its own main gate. The area across East 58th Street is primarily residential and light commercial. Areas A and B (the Club and Range, respectively) are located southeast of the airport, between Route 5 and the Minnesota River. Electrical systems on Areas D and N are included in the scope of systems to be privatized. The electrical systems on Areas A and B are already privatized and are not included in the scope of systems conveyed.

## J1.2 Electric Distribution System Description - Areas D and N

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

The Minneapolis-St. Paul ARS electric distribution system for Areas D and N consist 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, 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 and street lighting, traffic lights and airfield lighting, and secondary distribution. Also excluded is power generation equipment inside the base boundary.

### J1.2.1.1 Description

**Area D.** The electrical system for Area D consists of approximately 9200 LF of primary electrical distribution, consisting of approximately 27,600 LF of 15kV, 1/0 conductor. The majority of the primary distribution system was installed in 1988 and is direct-buried. A minor addition was made in 2002. All transformers are pad-mounted and no aerial electrical distribution system exists in this area.

The Xcel Energy (Xcel) feeder connects into the main disconnect at the base entrance. At this point, the primary electrical distribution system is looped. There are various sectionalizing switches to isolate parts of the system to perform repair work or reroute power. The electrical system is metered for billing purposes at the main disconnect switch.

**Area N.** The electrical system for Area N consists of approximately 11,000 LF of primary electrical distribution, consisting of approximately 33,000 LF of 15kV conductor. The primary distribution system was replaced in 1988 in a combination of new and original ductbank. All transformers are pad-mounted and no aerial electrical distribution system exists in this area.

The Xcel feeders connect to the base system at the switch panel located at 4th Street. At this point, the primary electrical distribution system is looped and includes several radials off of the loop. There are various sectionalizing switches to isolate parts of the system to perform repair work or reroute power. The electrical system is metered for billing purposes at the main switchgear.

### J1.2.1.2 Inventory

**Table 1A and Table 1B** provide a general listing of the major electric distribution system fixed assets for the Minneapolis-St. Paul ARS Area D and Area N electric distribution system included in the sale.

**TABLE 1A**
Fixed Inventory, Area D
*Electric Distribution System Minneapolis-St. Paul ARS*

| Item | Size | Quantity | Unit | Approximate Year of Construction |
|---|---|---|---|---|
| *Underground Conductor, no Underground Neutral, XLP, Cu, Direct Buried w/ warning tape – No duct or ductbank.* | *15kV, 1/0* | *25,970* | *SCLF* | *1988* |
| *Underground Conductor no Underground Neutral, XLP, Cu, in 4" plastic duct. w/ warning tape – No concrete ductbank* | *15kV, 1/0* | *1695* | *SCLF* | *2002* |
| *Transformers, Dry Type Ventilated* | *15kV/75kVA* | *4* | *EA* | *1988* |
| *Transformers, Oil-filled, Pad Mounted* | *15kV/750kVA* | *1* | *EA* | *1988* |
| *Transformers, Oil-filled, Pad Mounted* | *15kV/500kVA* | *3* | *EA* | *1988* |
| *Transformers, Oil-filled, Pad Mounted* | *15kV/300kVA* | *7* | *EA* | *1988* |
| *Transformers, Oil-filled, Pad Mounted* | *15kV/225kVA* | *3* | *EA* | *1988* |
| *Transformers, Oil-filled, Pad Mounted* | *15kV/150kVA* | *3* | *EA* | *1988* |
| *Switches, Power* | *15kV* | *21* | *EA* | *1988* |
| *Switches, Pad Mounted Loadbreak* | *15kV/600 amp* | *8* | *EA* | *1988* |
| *Vaults, Precast* | *4'X6'X6'* | *9* | *EA* | *1988* |
| *Meters, 3 ph, 4 Wire, Rainproof Encl.* | *225 amp* | *15* | *EA* | *1988* |
| *Meters, 3 ph, 4 Wire, Rainproof Encl.* | *800 amp* | *5* | *EA* | *1988* |

Notes:

AMP = Amperes

AWG = American Wire Gauge
Cu = Copper
EA = Each
ENCL = Enclosure
LF = Linear Feet
kVA = Nominal Kilovolt-Amperes
kV = Kilovolts
SCLF = Single Conductor Linear Feet
V = Volts
/ = With

**TABLE 1B**
Fixed Inventory, Area N
*Electric Distribution System Minneapolis-St. Paul ARS*

| Item | Size | Quantity | Unit | Approximate Year of Construction |
|---|---|---|---|---|
| *Underground Conductor, 15kV, XLP, Cu Direct Buried (excluding ungrounded neutral) – No Ductbank w/ warning tape.* | *#2 AWG* | *33,444* | *SCLF* | *1988* |
| *Ground/Neutral Conductor, 15kV* | *#4 AWG* | *11,148* | *SCLF* | *1988* |
| *Ductbank* | *2 duct* | *10,023* | *LF* | *1988* |
| *Ductbank* | *6 duct* | *1125* | *LF* | *1945* |
| *Transformers, Dry Type Ventilated* | *15kV/50kVA* | *3* | *EA* | *1988* |
| *Transformers, Dry Type Ventilated* | *15kV/75kVA* | *2* | *EA* | *1988* |
| *Transformers, Oil-filled, Pad Mounted* | *15kVA/750kVA* | *1* | *EA* | *1988* |
| *Transformers, Oil-filled, Pad Mounted* | *15kVA/500kVA* | *4* | *EA* | *1988* |
| *Transformers, Oil-filled, Pad Mounted* | *15kVA/300kVA* | *6* | *EA* | *1988* |
| *Transformers, Oil-filled, Pad Mounted* | *15kVA/225kVA* | *7* | *EA* | *1988* |
| *Transformers, Oil-filled, Pad Mounted* | *15kVA/150kVA* | *6* | *EA* | *1988* |
| *Switches, Power* | *15kV* | *29* | *EA* | *1988* |
| *Switches, PDMT Loadbreak* | *15kV/600 amp* | *8* | *EA* | *1988* |
| *Vaults, precast* | *4'X6'X6'* | *9* | *EA* | *1988* |
| *Meters, 3 ph, 4 wire, Rainproof encl.* | *800 amp* | *5* | *EA* | *2000* |
| *Meters, 1 ph, 3 wire, Rainproof encl.* | *400 amp* | *3* | *EA* | *2000* |

Notes:
AMP = Amperes
AWG = American Wire Gauge
Cu = Copper
EA = Each
ENCL = Enclosure
LF = Linear Feet
kVA = Nominal Kilovolt-Amperes
kV = Kilovolts
SCLF = Single Conductor Linear Feet
V = Volts
/ = With

## 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 Minneapolis-St. Paul ARS*

| Qty | Item | Make/Model | Description | Remarks |
|---|---|---|---|---|
| *None* | | | | |

**TABLE 3**
Specialized Vehicles and Tools
*Electric Distribution System Minneapolis-St. Paul ARS*

| Description | Quantity | Location | Maker |
|---|---|---|---|
| *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.

**TABLE 4**
Manuals, Drawings, and Records
*Electric Distribution System Minneapolis-St. Paul ARS*

| Qty | Item | Description | Remarks |
|---|---|---|---|
| *1 File* | *Drawing* | *Electrical Distribution System, Tab G-4, (Area N)* | *AutoCad* |
| *1 File* | *Drawing* | *Base Map (Revised Nov 99, ) (Area D)* | *AutoCad* |

## J1.3 Specific Service Requirements

The service requirements for the Minneapolis-St. Paul ARS electric distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Minneapolis-St. Paul ARS Area N 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.

There are no additional requirements beyond those listed in Section C.

## J1.4 Current Service Arrangement

Xcel currently provides all electrical power required by Minneapolis-St. Paul ARS, and has adequate capacity to meet current and anticipated demands**.** Annual electrical consumption for Area N is based on an average of billing records for fiscal years 2001 and 2002. For this period, Area N had an average annual consumption of 6554 MWH, with a peak demand of 1200 kW. For Area N the month with the most consumption was August with 687 MWH and the month with the least consumption was October with 441 MWH. Annual electrical consumption for Area D in fiscal year 2002 was 6532 MWH. There are no other existing commitments or special service arrangements.

# J1.5 Secondary Metering

See Attachment J52, Metering Plan, for additional metering requirements.

## 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 5A**
**Existing Secondary Meters, Area D**
*Electric Distribution System Minneapolis-St. Paul ARS*

| Meter Location (Building Number) | Meter Manufacturer | Meter Type) | Phases |
|---|---|---|---|
| 606 | Duncan | TWS-2S | 3 |
| 606 | Duncan | MS | 3 |
| 606 | Duncan | TMT-12S | 3 |
| 610 | GE | 700X66G1 | 3 |
| 614 | Square D | Power Logic | 3 |
| 616 | ABB | A1R-A | 3 |
| 631 | GE | 700X25G2 | 3 |
| 640 | Westinghouse | D4S-8M | 3 |
| 641 | Square D | Power Logic | 3 |
| 642 | Oskai Electric | 0Q91HT | 3 |
| 645 | Westinghouse | D4B-8FM | 3 |
| 656 | GE | DSM-65 | 3 |
| 659 | GE | 700X022009 | 3 |
| 668 | ABB | A1R-A | 3 |
| 670 | ABB | A1R | 3 |
| 680 | Westinghouse | D4S-8 | 3 |
| 681 | Duncan | MT-14S | 3 |
| 683 | ABB | A1R | 3 |
| 685 | Westinghouse | D4S-8 | 3 |
| 687 | GE | DSM-65 | 3 |

**TABLE 5B**
Existing Secondary Meters, Area N
*Electric Distribution System Minneapolis-St. Paul ARS*

| Meter Location (Building Number) | Meter Number/ Approx Year Installed |
|---|---|
| Bldg 729 Housing | **OWNED BY XCEL ENERGY, NOT CONVEYED.** |
| Air Switch Cabinet (entry Point) | **OWNED BY XCEL ENERGY, NOT CONVEYED.** |
| Transformer (Butler Hut) | 84124807 FY2000 3 phase |
| Bldg 760 (Headquarters) | No #, FY2000 3 phase |
| Bldg 822 On 480/272 line | 85013708 FY2000 3 phase |
| Bldg 806 (Haz Storage) | 92512624 FY 2000 3 phase |
| Bldg 852 (outside) | No # FY2000, 3 phase |

| Meter Location (Building Number) | Meter Number/ Approx Year Installed |
|---|---|
| Street Lights 1 | 92264817 Fy2000, 1 phase |
| Street Lights 2 | 92264818 Fy2000, 1 phase |
| Street Lights 3 | 92264819 Fy2000, 1 phase |

## 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 6A**
New Secondary Meters, Area D
*Electric Distribution System Minneapolis-St. Paul ARS*

| Meter Location | Meter Type (Phases) |
|---|---|
| 608 | 3 |
| 618 | 3 |
| 628 | 3 |
| 629 | 3 |
| 660 | 3 |
| 662 | 3 |
| 667 | 3 |
| 686 | 3 |

**TABLE 6B**
New Secondary Meters, Area N
*Electric Distribution System Minneapolis-St. Paul ARS*

| Meter Location (Building Number) | Meter Description |
|---|---|
| 707 | New 3 phase meter sized for load. |
| 710 | Existing 3 phase meter requires Replacement |
| 715 (2 meters) | Existing 3 phase meter requires Replacement |
| 720 | New 3 phase meter sized for load |
| 721 | New 3 phase meter sized for load. |
| 723 | New 3 phase meter sized for load. |
| 724 | New 3 phase meter sized for load. |
| 725 | New 3 phase meter sized for load. |
| 726 | New 3 phase meter sized for load. |
| 727 | New 3 phase meter sized for load. |
| 728 | New 3 phase meter sized for load. |
| 729 | New 3 phase meter sized for load. |
| 730 | New 3 phase meter sized for load. |
| 733 | New 3 phase meter sized for load. |
| 740 | New 3 phase meter sized for load. |

| Meter Location (Building Number) | Meter Description |
|---|---|
| 744 | Existing 3 phase meter requires Replacement |
| 745 | Existing 3 phase meter requires Replacement |
| 746 | New 3 phase meter sized for load. |
| 747 | New 3 phase meter sized for load. |
| 752 | New 3 phase meter sized for load. |
| 757 | New 3 phase meter sized for load. |
| 761 | Existing 3 phase meter requires Replacement |
| 777 | New 3 phase meter sized for load. |
| 801 | Existing 3 phase meter requires Replacement |
| 802 | New 3 phase meter sized for load. |
| 803 | New 3 phase meter sized for load. |
| 804 | New 3 phase meter sized for load. |
| 805 | Existing 3 phase meter requires Replacement |
| 807 (2 meters) | Existing 3 phase meter requires Replacement |
| 812 | Existing 3 phase meter requires Replacement |
| 813 | New 3 phase meter sized for load. |
| 814 | New 3 phase meter sized for load. |
| 820 | New 3 phase meter sized for load. |
| 821 (2 meters) | Existing 3 phase meter requires Replacement |
| 822 (2 meters) | Existing 3 phase meter requires Replacement |
| 830 | Existing 3 phase meter requires Replacement |
| 837 | New 3 phase meter sized for load. |
| 840 (2 meters) | Existing 3 phase meter requires Replacement |
| 853 (2 meters) | Existing 3 phase meter requires Replacement |
| 861 | New 3 phase meter sized for load. |
| 865 | New 3 phase meter sized for load. |
| 870 | Existing 3 phase meter requires Replacement |
| Unnumbered Bldg to Bldg 8222 | New 3 phase meter sized for load. |

# 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:* 934 LSS/LGC
   *Address:* *760 Military Highway*
   *Minneapolis, MN 55450-2100*
   *Phone number:* *612-713-1432*

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:* 934 SPTG/CE
   *Address:* *760 Military Highway*
   *Minneapolis, MN 55450-2100*
   *Phone number:* *612-713-1946*

   With a copy to:

   *Name:* Contracting Officer
   *Address:* *760 Military Highway*
   *Minneapolis, MN 55450-2100*
   *Phone number:* *612-713-1432*

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:* 934 SPTG/CE
   *Address:* *760 Military Highway*
   *Minneapolis, MN 5545-2100*
   *Phone number:* *612-713-1946*

   With a copy to:

   *Name:* Contracting Officer
   *Address:* *760 Military Highway*
   *Minneapolis, MN 5545-2100*
   *Phone number:* *612-713-1432*

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:* 934 SPTG/CE
   *Address:* *760 Military Highway*
   *Minneapolis, MN 55450-2100*
   *Phone number:* *612-713-1946*

   With a copy to:

   *Name:* Contracting Officer
   *Address:* *760 Military Highway*
   *Minneapolis, MN 55450-2100*

*Phone number: 612-713-1432*

# J1.7 Energy Saving Projects

IAW Paragraph C.3, Requirement, no projects have been implemented on the distribution system by the Government for energy conservation purposes.

# J1.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within Areas D and N of the Minneapolis-St. Paul ARS boundaries.

# J1.9 Off-Installation Sites

No off-installation sites are included in the sale of the Minneapolis-St. Paul ARS Areas D and N 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 Minneapolis-St. Paul ARS*

| 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 Minneapolis-St. Paul ARS Area N 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 Sub-CLIN Projects. Renewal and Replacement projects will be recovered through Sub-CLIN A(y).

**TABLE 8A**
System Deficiencies, Area D
*Electric Distribution System Minneapolis-St. Paul ARS*

| Project Location | Project Description |
|---|---|

| | |
|---|---|
| None | |

**TABLE 8B**
System Deficiencies, Area N
*Electric Distribution System Minneapolis-St. Paul ARS*

| Project Location | Project Description |
|---|---|
| None | . |