

## **I. Project Description**

### **Schneider Electric AEM Solution**

Schneider Electric is expanding the existing AEM pilot system with the addition of 5 PowerLogic ION Enterprise (ION-E) Data Acquisition Systems (DASs) for the U.S. Department of Veterans Affairs. The software and associated meters are configured in the manner of the existing AEM Pilot Project.

Expansion of the existing Enterprise Energy Management (EEM) system is not included.

The AEM system will provide the information necessary to make more informed energy management decisions using installation-wide views of energy consumption. The system will present electrical consumption, usage patterns and reliability parameters from the multitude of buildings represented within the following VISNs:

ION-E System 1: VISNs 1-4  
ION-E System 2: VISNs 5-9  
ION-E System 3: VISNs 10-12 & 23  
ION-E System 4: VISNs 15-18  
ION-E System 5: VISNs 19 – VBA3

The primary components of the AEM system are the ION-E Data Acquisition Systems (DAS), advanced electrical meters, and associated communication systems. All meters are connected to a designated Ethernet Point of Presence (POP) at each monitoring site. Ultimately, all energy and quality data from remote advanced meter sources is brought into the Primary ION Enterprise data acquisition system.

The PowerLogic ION Enterprise systems are responsible for collecting interval energy data and power quality event data from the U.S. Department of Veterans Affairs meter networks. In addition to facilitating energy efficiency goals, the advanced meters utilized in this application will help U.S. Department of Veterans Affairs analyze the power quality status of the electrical distribution system.

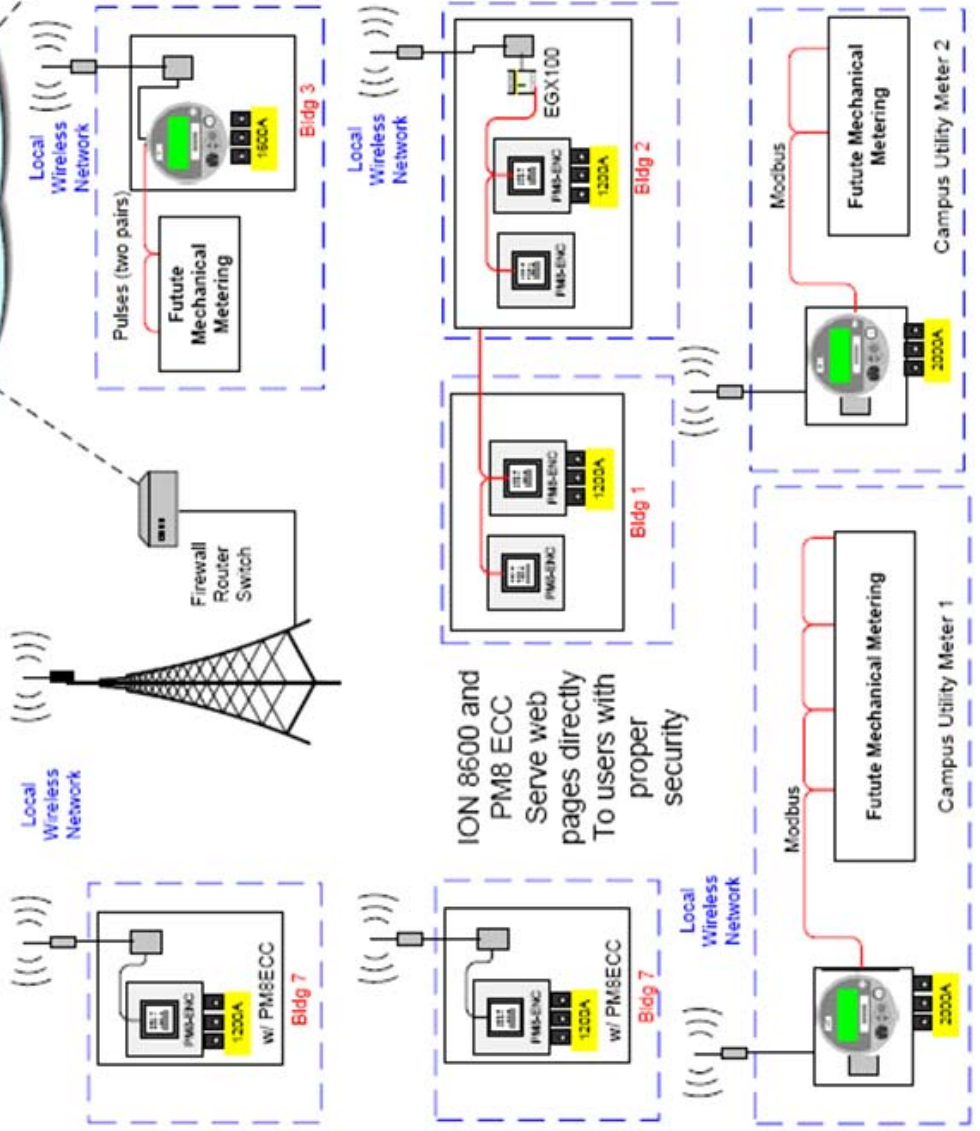
ION Enterprise software is a complete energy management and data acquisition system (DAS) that provides true Smart Grid technology. The software is web enabled and provides an all-in-one package for operational energy system monitoring, analysis and control that enables users to reduce energy-related costs. It allows users to collect data through serial, wireless, modem or Ethernet links to manage a single site or use a wide area network to connect a global network of devices.

Inquiries may be directed to:

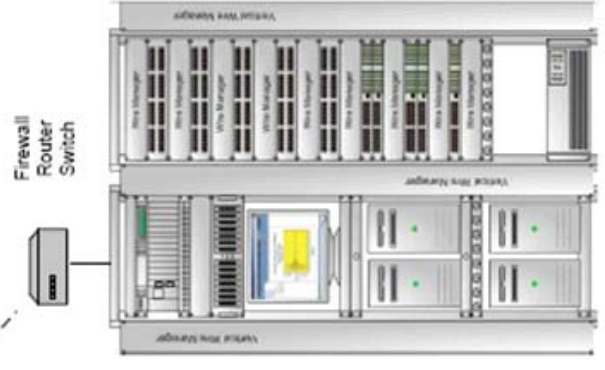
VA NEBC CO: Brenda Parks – 216-447-8300 x3592

Prime Contractor: Schneider Electric – 615-287-3500

# Typical VA Site X



# St. Louis Hosting Site



Data polled in near time  
By ION.E host, then  
communicates to existing  
remote EEM Server

**Wiring Connection Legend**

- Hard Wire Connection
- Serial Modbus RTU
- Ethernet Modbus TCP

No practical  
limit to  
Web clients  
Per site





## VA AEM - Advanced Electric Metering National Program

### ION-E Base Scope of Work Instructions for getting onto the St. Louis Server System

The National AEM Program was contracted for display of real time data only and no historical or other data manipulation features. During the commissioning phase of a site / campus, the Schneider Electric Commissioning Engineer will ask for and gather information for two (2) VA site persons that require access to the St. Louis server system. This information is passed on to Schneider Electric engineer Namruth Nalla, who in turn sets up user accounts. Namruth will then email sign on information to the applicable site person via the email addresses supplied by the site Energy Manager / Technical Monitor and gathered by the Commissioning Engineer. Upon access, these two (2) people can monitor two (2) key components of site real time data, Kilowatt Demand and Power Factor.

For the base scope of work, please note that while other metering information is being sent to the St. Louis server system, display is restricted to these two (2) key components until the higher level EEM software is contracted / funded by the NEBC and enabled by Schneider Electric. Please direct any questions or concerns on this issue to NEBC representatives, Chris Amato or Brenda Parks.

- ❖ Once the VA site user has the logon information, they may proceed to the following web address;  
➤ <http://vamc.powerlogic.com>
- ❖ The address will take the user to a logon page where they will need to type in their ID and password.

UNITED STATES  
DEPARTMENT OF VETERANS AFFAIRS  
Welcome to VA NATIONWIDE system

User Name

Password

Login

PowerLogic® ION EEM

Technology by Schneider Electric ©2009 | Version 3.95.1028.0

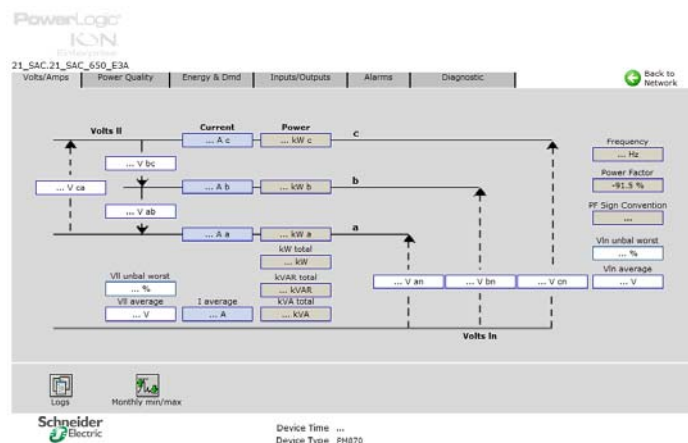
❖ By clicking on the “Login” button, the user is taken to the “Facility Map”;



❖ From the “Facility Map” the user can view buildings that provide metering data by clicking on a campus;

| California – Sacramento – Meters |                 |                     |                 |              |
|----------------------------------|-----------------|---------------------|-----------------|--------------|
| Electric Meters                  |                 |                     |                 |              |
| BUILDING                         | METER ID        | ROOM                | KILOWATT DEMAND | POWER FACTOR |
| 650                              | 21-SAC-650-E3A  | Rm 1A001 (Bldg 701) | 1,031.0         | -90.7        |
| 720                              | 21-SAC-720-E3A  | Outside             | 18.0            | 99.6         |
| 722A                             | 21-SAC-722A-E3A | Outside             | 2.0             | 99.9         |
| 728                              | 21-SAC-728-E3A  | Electrical Rm       | 18.0            | 99.9         |

❖ By clicking on one of the “Meter ID’s”, the user is taken to the ION-E Vista Diagram;



Note: The user can go back to the previous screen by clicking the “Back” button, located at the top right hand corner of each screen.