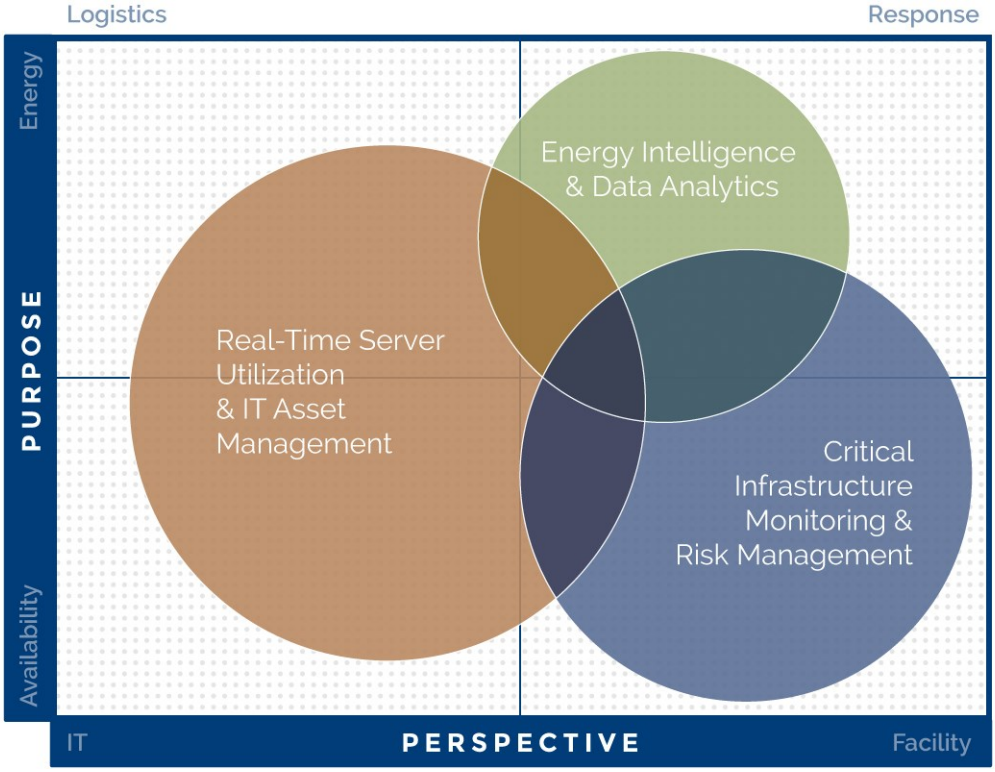
EPMS Solutions

EPMS solutions (Electrical Power Management Systems) are designed to gather data, process real time operational conditions, and store data sets for future evaluation. **Successful integration** to information sources and actionable intelligence is the key to overall program success.

Find the correct software solution based on program deployment requirements



You can't improve what you don't understand.

Real-time, strategic information is critical to the success of any operation. The right EPMS solution provides the intelligence you need to protect your organization, allowing you to safeguard availability while improving efficiency.

WES works with your team to understand what you have, what you need, and the best roadmap to get to where you're going. We help build a solution that meets your specific feature needs and budget. Our EPMS solutions are flexible, scalable, and adaptable. They take advantage of your existing resources, design and deploy improvements, and incorporate training and maintenance into the lifecycle of ongoing operations.

Contact WES to set up your EPMS workshop today in order to start building your baseline dataset.

- ***Evaluate and Define***
- ***Design and Plan***
- ***Implement and Validate***
- ***Monitor and Assess***
- ***Maintain and Improve***

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What data is available?

Device Type	Protocol	Dataset	Typical Points Count
Power Meter	MODBUS RS485 MODBUS IP	Energy, Power, Harmonics, Quality	50 Per Unit
ATS	MODBUS RS485 MODBUS IP	Position, Source, Load	10 Per Unit
Generator	TCPIP, MODBUS, Dry	Energy, Power, Harmonics, Quality Position, Operation	75 Per Unit
Circuit Breaker	MODBUS RS485 MODBUS IP	Energy, Power, Harmonics, Quality Position, Operation	40 Per Unit
TVSS/SPD	Dry, SNMP		6 Per Unit
HVAC Unit	SNMP, BACNET, MODBUS, LonWOrks	Operation, Environmentals, Capacity. Mode	50 Per Unit
Switchgear	SNMP, MODBUS,	Energy, Power, Harmonics, Quality Position, Operation	250 Per Unit
Building Aggregator	SNMP, MODBUS,	Position, Alarms, analog Deices, Environmentals	128 Per Unit

WES EPMS Systems reach across data connections and networks with typical network protocols and structures that poll and gather data for additional processing.

Our systems are designed to:

- Poll data for positive validation, typically at 1– second resolution
- Validate against alarm standards
- Process against custom parameters
- Modify system configuration states to meet operational modes

The majority of equipment deployed today has the built-in capability to produce a rich dataset. An advanced EPMS system captures this data set for multiple application usage.

How is it used?

Individual device information is obtained in real time and actively analyzed to understand and report the system's state of operation. An appropriately deployed system acts in a 'battle management' role, to providing immediate situational awareness, clarity of conditions, and simplify the decision making process for deployment of needed resources.

The secondary role of a well-implemented EPMS is to establish baseline operational modes over time and more accurately plan for improvements and increase overall energy efficiency and system resiliency, thereby mitigate risks.

The system provides rapid and easy extraction of data for integration to adjacent or dependent systems for additional data intelligence processing and analytical reporting and support.

Baseline energy and power quality data builds advanced functionality and survivability into a facility or base power distribution network.

Our Experience

20 Years
Deployment Experience

55+
Data Center Installs

2100+
Remote Site Integrations

300+ Major Device Type Installs

30,000 Devices Integrated

10,000,000
Data Channels Supported

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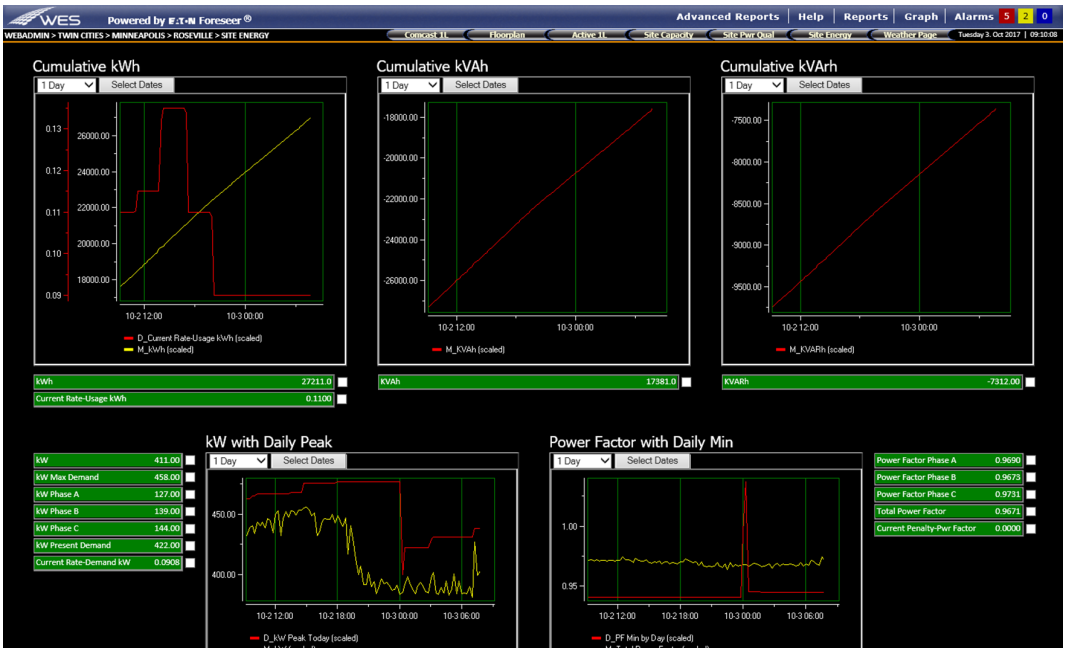
Power Capacity and Quality



Understanding a facility energy profile and consumption pattern under normal demand operation allows for critical rightsizing of additional emergency support systems.
For example, time of use and load profile data can help determine necessary resource applications.

Use real high resolution data to target energy improvements, power quality corrections and enhanced survivability improvements.

Routine operational impacts are quantified to help improve operational readiness and maintenance cycles.

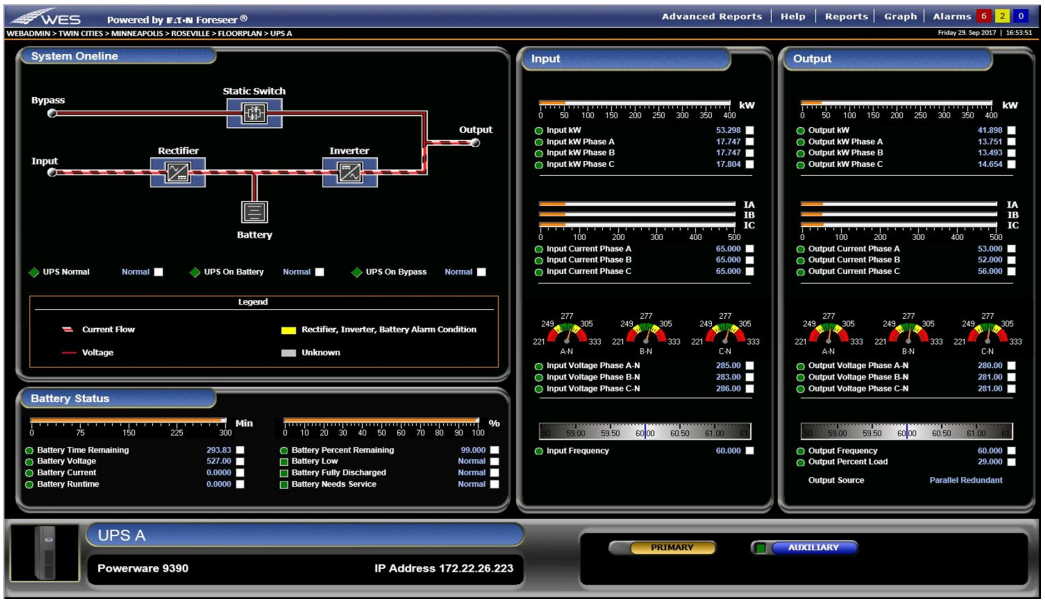
Data sets and conditions are derived from underlying models and standard data points to provide enhanced actionable intelligence.

Build advanced data from underlying conditions.

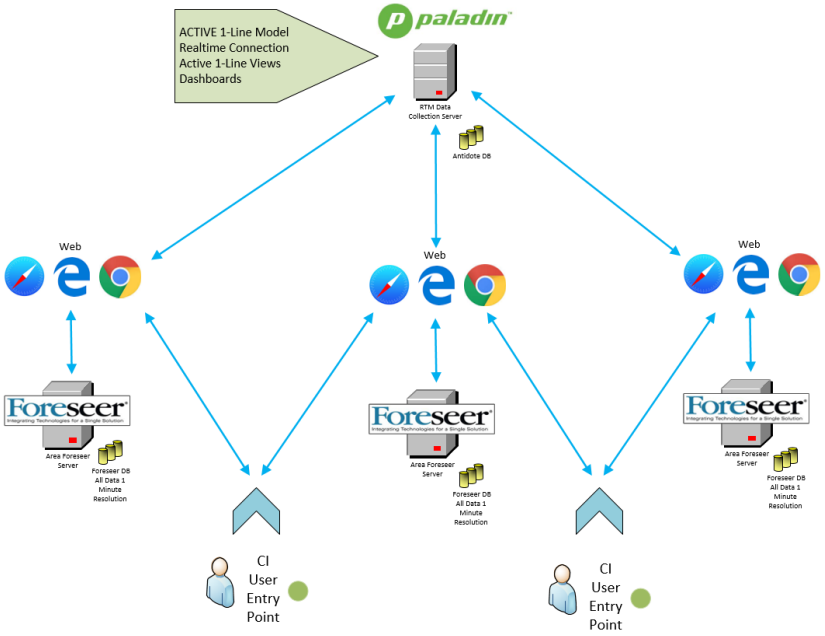
Operation and Control

Command and control of assets based upon load demand with instantaneous feedback.

Modeling and 'what if' scenario conditions are simulated based upon actual electrical model simulation. Distribution system component failures and work around scenarios can be practiced in a virtual environment to simulate rapid system reconfiguration for event readiness planning.



Example Arrangement



Performance you can count on

- Full turnkey integration
- Concept and design development
- Installation, setup and testing
- Commissioning verification
- Multi-site managed processes based upon specific site needs

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