



\x45\x6e\x65\x72\x4e\x65\x78\x20\x53\x65\x63\x75\x72\x69\x74\x79



Utility Automation

EnerNex provides recognized expertise in the areas of substation, distribution and feeder automation, as well as SCADA/DMS including power system engineering, distribution system operations and business case development.

EnerNex knows utility data communications like no other company. We not only have decades of experience implementing communication protocols, but we have helped create them. Many of our staff are heavily involved with standards organizations such as the IEEE, IEC, Cigre and ANSI and can bring to your company the skills necessary to architect optimal solutions for distribution and substation automation.

As an unbiased, independent consulting firm, we are well positioned to help utilities optimize their transmission and distribution infrastructure. We fully leverage our expertise, coupled with technology, to provide solutions that work. EnerNex Corporation is the pre-eminent consulting firm for **Utility Automation**.

Our Services

EnerNex is a research, engineering, and consulting firm specializing in the development and application of new electric power technologies. Our focus is to aid in the understanding and solution of electric power related issues, as well as the development of technology and expertise that will ultimately improve the operation and reliability of electric power systems. We offer services organized around these areas of emphasis:

- ▶ Power Systems Analysis
- ▶ Wind Integration
- ▶ Information Security
- ▶ Systems Monitoring & Analysis
- ▶ Testing and Research & Development
- ▶ Smart Grid Development
- ▶ Advanced Metering Infrastructure
- ▶ Utility Communication Architecture & Implementation
- ▶ Utility Automation
- ▶ Demand Response & Energy Efficiency





\x45\x6e\x65\x72\x4e\x65\x78\x20\x53\x65\x63\x75\x72\x69\x74\x79



Utility Automation

EnerNex Expertise

Our Philosophy Of Utility Automation: EnerNex is committed to using the latest domestic and international standards, as well as off-the-shelf tools, wherever possible, to cost-effectively solve customer problems. This open systems philosophy limits your exposure to proprietary software and hardware that often becomes too expensive to maintain and support.

EnerNex is also actively working with utility customers in the development of security architectures and Advanced Distribution Automation applications. Our personnel have been key to the development of such standards and protocols as IEC 61850, IEC 60870-5 and DNP3. Our staff played a key role in the EPRI Utility Communication Architecture (UCA®) project as well as the EPRI IntelliGrid Architecture, a pivotal effort to establish a roadmap and process for integrating utility power systems and communications networks. Our utility automation areas of expertise include:

- Supervisory Control and Data Acquisition (SCADA)
- Energy Management Systems (EMS)
- Distribution Management Systems (DMS)
- Substation automation and control
- Advanced Distribution Automation
- Equipment monitoring and asset management
- Outage management systems
- Advanced metering infrastructure
- Communications network security

Our staff members are involved with leading industry organizations and initiatives such as:

*The GridWise Architecture Council // U.S. Department of Energy Modern Grid Initiative
UCA International Users Group // The North American Electric Reliability Corporation*

Our services include:

*Requirements development // Standards based conceptual design // Communication network design
Business case development // Procurement specification development // Implementation assistance
Training // Security assessment // Contract research and development*

Our Knowledge

EnerNex understands the requirements of your utility automation applications:

- ▶ Fault location, isolation, sectionalization and restoration
- ▶ Volt/VAr control
- ▶ Substation automation
- ▶ AMI
- ▶ Power quality monitoring
- ▶ Protective relaying
- ▶ Equipment condition monitoring for reliability centered maintenance
- ▶ Phasor measurement and reporting
- ▶ Advanced distribution automation

