



Advanced Metering

Advanced Metering Infrastructure (AMI) consists of everything needed to support advanced metering — from the meter itself to the back-end applications associated with demand response, billing, etc. Effective AMI development, implementation and operation relies on a marriage of electric power engineering with information technology expertise — a key component of EnerNex Corporation’s capabilities.

AMI is attracting increased attention within the electric power industry, driven partly by a provision in the U.S. Energy Policy Act of 2005 mandating that state regulatory bodies examine the feasibility of establishing time-based electricity pricing programs and implementing the advanced metering necessary to support such programs.

The “I” in AMI also allows a utility to cost-effectively implement a variety of modern grid applications. EnerNex knows how to help a utility get the most out of the “I” in AMI. EnerNex Corporation is the pre-eminent engineering consulting firm for **Advanced Metering Infrastructure**.

AMI Implementation

EnerNex provides a wide array of engineering and consulting services geared towards smart implementation of AMI. This covers all phases of AMI project development, including:

- ▶ **Policy Development**
- ▶ **Business Case Modeling**
- ▶ **Assembling Functional Requirements**
- ▶ **Conceptual Architecture Creation**
- ▶ **Trade Off Analysis**
- ▶ **Reference Design Construction**
- ▶ **Performing Technology Assessments**
- ▶ **Project Management Support**
- ▶ **Product Testing and Vendor Evaluation**
- ▶ **Systems Integration Support**

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EnerNex Expertise

EnerNex starts with capturing system requirements utilizing a Use Case-centric view of activities to be accomplished and their interaction with systems and other users. EnerNex specializes in making sure the development and selection process covers the following critical areas: modeling of business cases, building inter-department consensus, assembling and assessing system functional requirements and non-functional requirements, developing a system design, hardware and software specification, complete procurement services including RFI and RFQ process support, supplier rating system, response evaluation methodology, deployment management and training of office and field personnel.

Leveraging experience and methodologies established during the development of the EPRI IntelliGrid Architecture, as well as expertise gained through work with a wide range of clients including Entergy, Southern California Edison, Consumers Energy, BC Hydro and the California Energy Commission, EnerNex is undertaking ground-breaking work in AMI development, implementation and application.

EnerNex has experience with all the major components and applications associated with AMI, including:

- **Automated Meter Reading**
- **Billing and Customer Information Systems**
- **Customer Interface**
- **Load Control/Curtailment**
- **Time-Based, Critical Peak, and Real Time Pricing Programs**
- **Telecom and Network Communication**
- **Integrating Advanced Distribution Automation with the Metering System**
- **Integrating Advanced Distribution Automation with the Metering System**
- **Distributed Energy Resources**
- **Energy Procurement**
- **Field Services**
- **Integrated Outage Management**
- **Asset Installation and Maintenance**
- **Program Review and Benchmarking**

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**

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