

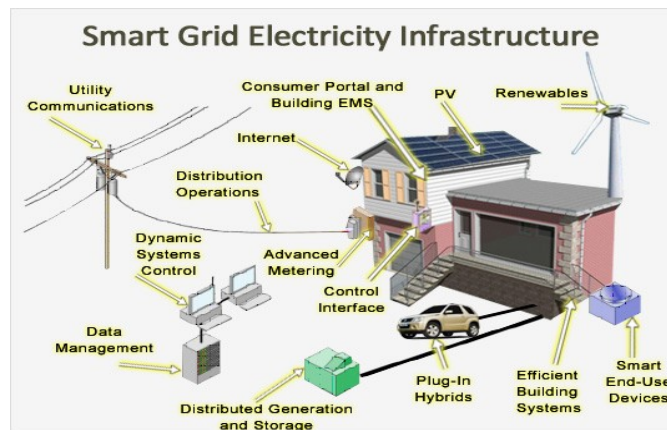
## Smart Grids - Electric Utility Company

An Electric Utility Company was exploring the use of Advanced Meter Infrastructure (AMI) technology to provide improved and efficient access to utility account information as well as reduce tampering and manipulation of meter reading data through an automated process using smart electric meters. The Utility Company wanted to install, setup, configure and connect smart meters to the AMI to certain households. The company currently dispatches meter reading staff monthly to read every electric meter. The readings are used to determine amount of usage that the customers are billed.

### Solution

PERI solution comprises of smart electric meters that are capable of collecting fine grained household electrical usage data and transmitting the data securely over GPRS or WIFI Mesh. In case of the GPRS, additional GPRS concentrators are used to avoid the repetitive and cost intensive GPRS SIM for each meter. The data collected is integrated into a smart grid enterprise information system. The application supports data collection, analytics, system planning, engineering, operations, energy management, asset management, and value-added customer services.

Advanced Metering Infrastructure (AMI) Smart Meter and Demand Response form the core enabling technologies for the Smart Grid. Beyond automated meter reads for billing purposes, Smart Meters serve as information gateways to customers. They provide periodic meter reads to support dynamic pricing programs, improve revenue management, proactive customer communications to educate about energy efficiency.



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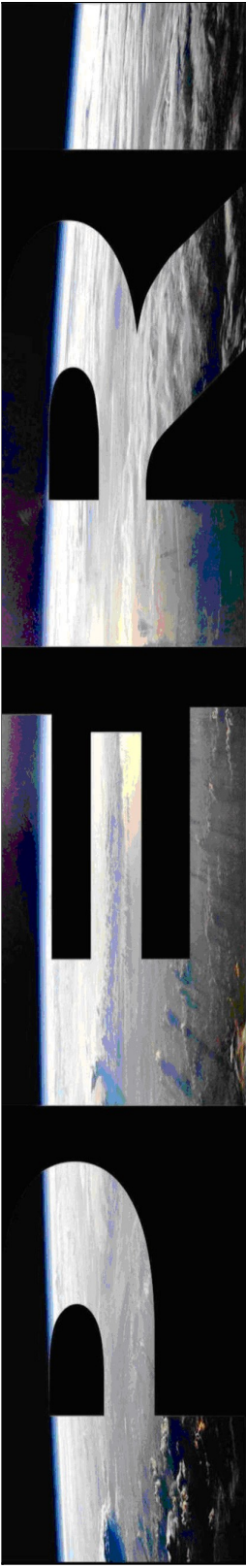
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A vertical strip on the left side of the page shows a satellite view of Earth from space, with a black silhouette of a stylized 'P' overlaid on it.

PERI provided solutions for using outdoor wireless mesh and GPRS solutions for implementing smart grid solutions. PERI has overcome the challenges of deploying wide-area wireless broadband IP networks on a large scale, making wide-area broadband coverage possible. PERI provided a solution that is scalable, reliable, performance bound and secured that customer needed. The backend application is enterprise wide GIS supported by Business Intelligence application.

Additionally, PERI assisted the Utility Company

- Pilot implementation with sample AMR
- Setting up AMR processes to collect, process and record power consumption data at preset intervals
- Building MIS/GIS solutions to understand electrical load in real time
- Provisioned to download collected data into handheld device for instant billing at consumer site
- Integrated Billing and Analysis modules
- Management of the collected data on Smart Grid asset, system and device
- Operation and maintenance of the Smart Grid systems including hardware, firmware, and software
- Management and use of data collected to improve the utility business, including operation efficiency, planning and utilization, energy efficiency and customer service
- Scope, evaluate and deployment of Smart Grid systems and devices including smart meters
- Security and Information protection policies, guidelines and processes
- GIS based energy management system, distribution and outage management systems

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