



SmartCity by Schneider Electric: Smart Grid Solutions

Making the grid more efficient and reliable

Schneider Electric's Smart Grid solutions are helping public and private network operators worldwide make electric power distribution through increasingly complex networks more efficient and reliable for growing urban populations. With improved network operations, they are able to help SmartCities reduce energy consumption, lower energy-related emissions and enhance quality of service and customer satisfaction.

Network automation and flexible distribution

The Smart Grid incorporates powerful remote terminal units (RTUs) that collect and relay real-time transmission and distribution information; reliability at this level is vital to subsequent smart grid performance. Schneider Electric offers a wide variety of proven-performance telemetry solutions that provide real-time grid information to centralized and highly advanced supervisory control and data acquisition (SCADA) systems for automated network operations control.

Smart metering and demand-response

Utilities also are deploying advanced metering and communications technologies to implement options such as dynamic, time-of-use and other pricing alternatives — all to help reduce electricity network congestion and energy costs. Our smart metering platform helps the SmartCity

efficiently and successfully roll-out AMI deployment with reduced operational labor costs; this service then helps manage subsequent meter-related data including — Home Area Network (HAN) data and complete residential energy management solutions — helping the enterprise realize the most return from its advanced metering infrastructure (AMI) investment.

This demand-response capability is key in successfully meeting the demand and supply challenges — and the environmental and commercial benefits — of electric vehicles (EVs), energy storage, as well as distributed energy resources — including renewable energy integration. With these real-time metering and demand-response solutions, the SmartCity delivers new-generation energy services to its customers. Further, it makes AMI information data available for invoicing and key business and operational applications to improve processing efficiency and support decision making across the enterprise.

Advanced distribution management systems

Smart Grid networks are becoming more complex, with the incorporation of volatile renewable energy resources to help reduce peak demand and the need to accommodate changing usage habits spawned by electric vehicles and high-tech equipment. Our Advanced

Distribution Management System (ADMS) seamlessly integrates advanced SCADA technology with distribution management and dedicated outage management solutions.

With enhanced network telemetry and an accurate network model, this comprehensive solution serves as the brain of the distribution network, performing real-time network analysis supporting:

- Improved power efficiency in all parts of the distribution network
- Faster identification and resolution of outages
- A passive or active approach to demand-response, as appropriate for your needs

The utility gains a more detailed understanding of losses and real-time reconfiguration capability that minimizes those losses. The SmartCity optimizes operation of a dynamic electric distribution network and can better meet demand without significant investment in additional generation or transmission infrastructure.

Renewables integration and management

Schneider Electric's Smart Grid solutions also make distributed energy resources (DERs) viable for the SmartCity. These renewable energy and energy storage components, typically supplying less than 10 MW and located throughout the distribution network, are efficiently and effectively integrated through the advanced software analytics of our ADMS.

Asset management

From the start, the SmartCity requires intimate knowledge of the energy distribution network, to properly manage the expansion and evolution of critical assets and facilities that must connect and interact to deliver products that the city's businesses and residents need. Our enterprise geographic



information system (GIS) provides a unified set of tools that consolidates management, maintenance and access of the electric utility network asset data. The SmartCity also uses this centralized asset database to streamline planning and analysis of new construction and make network facilities information readily available anywhere it is needed, in the field and across the organization for vital decision making.

Let's talk smart

SmartCity by Schneider Electric Smart Grid Solutions fully integrate with existing technologies and offer multiple ways the SmartCity can optimize distribution network management, control consumption of electricity, meet emissions requirements and help electric utilities streamline business management. We look forward to hearing about your particular challenges and discussing a solution that helps you succeed.



Schneider Electric SmartCity
SmartCities for a Sustainable World