

# SmartGrid demonstration Q & A



## What is a SmartGrid?

A SmartGrid consists of advanced technology that facilitates real-time two-way communication between a utility and its customers. The resulting information allows the utility to improve energy efficiency, reduce costs, improve reliability, generate more transparent and actionable information and reduce its environmental footprint. It also provides customers the opportunity to sell back to the grid power they generate through solar panels. KCP&L believes this project will serve as a blueprint for future SmartGrid implementation and will accelerate a realization that the “utility of the future” safely delivers reliable electricity with greater efficiency, reduced costs and improved environmental performance.

## What is the SmartGrid demonstration?

The SmartGrid demonstration is a five-year project continuing through 2014 that will introduce new SmartGrid technologies and gather information to help KCP&L identify and test beneficial energy-efficiency measures, storage capabilities and supply and delivery processes. In the SmartGrid area, KCP&L will implement technologies and energy-efficient products and services to improve reliability, reduce energy delivery costs and enhance information flow.

## Where will the demonstration be located?

KCP&L's SmartGrid demonstration will be located in Kansas City's Midtown urban core, reaching from Main St. to Swope Parkway and 37th St. to 52nd St.

## Are the previously announced Green Impact Zone and the SmartGrid demonstration the same thing?

No, the Green Impact Zone covers a slightly smaller 150-block area inside the SmartGrid demonstration area, reaching from Troost to Prospect and 39th St. to 51st St. KCP&L's SmartGrid demonstration overlays the Green Impact Zone and extends beyond it to other circuit area Midtown homes and businesses

in order to gather a larger sampling of customer needs and preferences. (See map)

## Who is paying for the SmartGrid demonstration?

The Department of Energy's (DOE) Office of Electricity and Energy Reliability is providing KCP&L with a grant of just under \$24 million to help fund the fully integrated SmartGrid demonstration. This award is part of the Department's federal stimulus funding to modernize the electric grid and enhance the security and reliability of the energy infrastructure. KCP&L is also funding part of the project, along with significant contributions from our technical partners.

## What business partners are participating in the SmartGrid demonstration?

Current project partners include Siemens, OATI, Landis+Gyr, Intergraph, GridPoint and Kokam America Inc. (Dow Kokam), who will provide equipment, technical expertise and in-kind financial support. The project is also receiving the support of EPRI, an independent, non-profit company that performs research, development and design in the electricity sector for the benefit of the public.

## What SmartGrid technology is KCP&L planning to launch?

Currently, KCP&L will focus SmartGrid efforts in three areas: smart generation, smart distribution and smart consumption. In each area, KCP&L will introduce and implement the latest in advanced utility technology. Some examples are rooftop solar panels, meters that enable two-way communications, customer education and energy management tools.

## I live in the SmartGrid demonstration area. How can I participate in some of the initiatives?

As part of KCP&L's initiatives in the SmartGrid project, some homes will be eligible for an energy management system, home energy audit and other energy-efficiency upgrades. KCP&L will work directly with

**Knowledge gained from the SmartGrid demonstration project will help KCP&L identify and test beneficial energy-efficiency measures, storage capabilities and supply and delivery processes.**

customers and community organizations to introduce customers to new programs.

## I live outside the SmartGrid area. How will this project help me?

KCP&L customers already benefit from a variety of products and services that incorporate SmartGrid technologies, including energy audit services, energy-efficiency improvement rebates and programmable thermostats that integrate with the company's demand response goals to help KCP&L manage peak demand and protect the environment.

The SmartGrid demonstration will enable KCP&L to test emerging smart technologies and demonstrate to all customers its vision of how the advanced utility of the future will work. KCP&L will gain knowledge about customer needs, energy-efficiency measures, storage capabilities, supply and delivery, and the applications customers find most useful. This information will improve reliability, reduce energy delivery costs and enhance information flow for all of KCP&L's service territory. Also, the research collected will provide a regional advantage when determining where federal and private dollars should be invested.

Finally, KCP&L will work with schools to educate children about energy efficiency and collaborate with community organizations to train and recruit workers from the urban core in green technologies.