

# Smart Communities In Focus

## Spotlight: Louisville, KY



Louisville's smart community effort, known as Smart Louisville, is aided through its partnerships with Louisville Gas & Electric Company (LG&E), Amazon Web Services, the Federal Transit Administration, Johnson Controls, the Louisville Metro Parking Authority (PARC), Philips Lighting, the Transit Authority of River City (TARC), and Waze.

### Louisville's Goals

- Improve public transportation
- Enhance public safety
- Develop an efficient and sustainable city
- Encourage adoption of electric vehicles
- Pioneer energy storage technology

Smart communities are built on smarter energy infrastructure and leverage the power of data and technology to improve sustainability, spur economic development, help drive efficiencies, and enhance the overall quality of life for their citizens. This summary focuses on specific opportunities where communities and electric companies can collaborate to make communities smarter, including projects that advance: Smart Street Lighting, Smart Transportation, Smart Buildings, Distributed Energy Resources, and Data Analytics and Intelligent Services.

## What Makes Louisville Smart?



**Smart Transportation**—Improves safety and mobility, reduces carbon footprint, and provides greater access to services.

- LG&E received approval from the Kentucky Public Service Commission to install 10 public EV charging stations across its service territory. To date, three public stations have been installed in the Louisville Metro area, and two additional stations are hosted by commercial customers. LG&E partnered with ChargePoint to offer this service.
- PARC installed seven charging stations in city-owned garages and is in the process of surveying EV customers to determine locations for future charging stations.
- Louisville Metro, TARC, and the Federal Transit Administration partnered to develop 'ZeroBus', an all-electric bus service in downtown Louisville. TARC currently has a fleet of 15 all-electric buses operating in the city. Each ZeroBus is expected to save \$11,000 per year in diesel fuel and \$20,000 per year in maintenance costs.



**Smart Buildings**—*Save energy and improve sustainability.*

- Louisville Metro partnered with Johnson Controls to perform \$27 million of energy efficiency upgrades across nearly 200 municipal buildings, including water conservation efforts, lighting upgrades, HVAC upgrades, solar panels, and building management system controls. The project is expected to save \$56 million over 25 years.



**Distributed Energy Resources**—*Improve sustainability, efficiency, and reliability.*

- LG&E and KU Energy received approval from the Kentucky Public Service Commission to develop a community solar facility, which can accommodate up to four megawatts, through the subscription-based Solar Share program. The facility will be built for customers in Louisville and around Kentucky who are interested in supporting local solar energy. The electric companies also offer a Business Solar program and will build, own, and operate individual, private solar arrays for business and industrial customers.
- Just 80 miles from Louisville, LG&E and KU Energy commissioned Kentucky's first large-scale energy storage project that can host up to three individual megawatt-scale energy storage systems. The cutting-edge site allows researchers to evaluate the potential benefits of large-scale battery technologies and serves as a collaborative platform for research.



**Data Analytics and Intelligent Services**—*Increase efficiency, improve city services, and enhance quality of life.*

- Louisville Metro partnered with Amazon Web Services to analyze data from companies such as Waze and from 311 reports to monitor real-time traffic flow and is working towards the development of an interconnected traffic management system that can sense dramatic changes in traffic flow and dynamically adjust city infrastructure to mitigate impacts.
- Louisville Metro partnered with AT&T to launch free public Wi-Fi hotspots throughout West Louisville, including the PNC Gigabit Experience Center, and multiple hotspot locations in public areas that provide connectivity to hundreds of residents each month.
- As part of their customer engagement and education strategy around advanced meters, LG&E and KU Energy commissioned the Advanced Meter Early Adoption Program, providing detailed energy usage information to 5,000 LG&E and 5,000 KU residential and small commercial customers. About 7,400 meters have been installed to date.

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## Contacts

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