

Smart Communities In Focus

Spotlight: Pittsburgh, PA



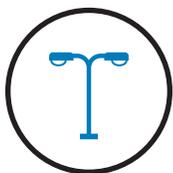
Pittsburgh's smart community effort is aided through its partnerships with Duquesne Light Company (DLC), Carnegie Mellon University, National Institute of Standards and Technology (NIST), Pennsylvania Department of Environmental Protection, Port Authority of Allegheny County, University of Pittsburgh, and the U.S. Department of Transportation.

Pittsburgh's Goals

- Improve air quality
- Expand energy independence
- Increase mobility
- Promote safety and economic opportunity

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 Pittsburgh Smart?



Smart Street Lighting—Saves energy, improves safety, and reduces traffic congestion.

- Pittsburgh, with state funding, installed 4,500 LED streetlights in 2012. The city recently closed an LED upgrade request for information for 40,000 streetlights, which encouraged proposals for sensing equipment, networking, and data sharing platforms.



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

- In October 2016, the U.S. Department of Transportation awarded an \$11 million grant to Pittsburgh for its "Smart Spines" project, a network of sensors that support smart signaling and congestion control in critical corridors throughout the city, helping buses and freight vehicles move through intersections more efficiently.
- Pittsburgh received \$250,000 in state funds to upgrade city fleet vehicles to electric vehicles (EVs) and to install EV charging centers.
- The Sports & Exhibition Authority and the Pittsburgh Parking Authority installed several publicly available EV charging stations in parking garages/lots.
- The Port Authority of Allegheny County announced plans for a Bus Rapid Transit system that would operate electric buses in addition to plans to electrify portions of its existing fleet.



Smart Buildings—*Save energy and improve sustainability.*

- Pittsburgh is working with NIST and a consortium of local businesses that specialize in Internet of Things energy management and controls to monitor, track, and inform municipal building energy usage.



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

- Leveraging existing energy infrastructure, Pittsburgh included a concept of a "grid of microgrids" in its resiliency plan and is further developing the concept in partnership with DLC.
- DLC is planning a microgrid for its Woods Run operations center campus (six buildings).

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August 2017