

Smart Communities In Focus

Spotlight: Washington, DC



Washington, DC's smart community effort, known as Smarter DC, is aided through its partnerships with Pepco, the Office of For-Hire Vehicles, the District Department of Transportation (DDOT), the District of Columbia's local Redevelopment Authority, the Office of the Chief Technology Officer (OCTO) and others.

Washington, DC's Goals

- Improved quality of life
- Comprehensive infrastructure solutions
- Citizen inclusion through digitally enhanced services
- Enhanced energy reliability and resiliency

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 Washington, DC Smart?



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

- Washington, DC is evaluating the potential to upgrade 76,000 streetlights to LEDs with integrated remote monitoring and control systems enabled through gigabit-speed Wi-Fi that also provide internet access for District citizens.



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

- Pepco is seeking regulatory approval for a project designed to manage electric vehicle (EV) charging demand on its grid and reduce charging costs for EV owners. Up to 100 residential customers with EVs and installed EV supply equipment will have the option to receive discounted electricity when charging their vehicles during off-peak hours. In addition, the project proposes to install chargers for multi-dwelling units as well as 4 DC fast chargers.

- In 2016, DC Streetcar began operating along a 2.1-mile route from Union Station through Northeast Washington, DC. More than 1 million residents, workers and visitors rode the DC Streetcar in its first year of operation, and Washington, DC plans to add eight additional electric streetcar lines.
- Washington, DC's Office of For-Hire Vehicles established an Electric Vehicle Taxicab service with 150 taxis in use.
- Washington, DC plans to use \$6 Million from the VW Electrify America program to develop EV charging infrastructure.



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

- A Master Development Team lead by Urban Ingenuity and including Hines, Urban Atlantic, and Triden, is building an advanced microgrid for the Walter Reed Army Medical Center, integrating a series of combined cooling, heating, and power energy centers with solar photovoltaic, district heating and cooling, and energy efficiency assets. The microgrid provides sustainable energy services to 3 million square feet of new and redeveloped real estate on the 66-acre campus.
- Pepco is committed to ensuring safe and reliable interconnection of renewable energy resources into the electric grid by providing a range of tools and technology including state-of-the-art hosting capacity maps and soon-to-be-released heat maps that support renewable energy and partner with customers.



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

- The Office of the Chief Technology Officer is planning to use data from smart sensors in key economic development corridors to enable digitally enhanced services, drive more efficient city operations, and enhance economic planning efforts.
- Washington, DC's Department of Transportation launched the Demand-Based Pricing Pilot Project in the Chinatown/Penn Quarter area as part of the "ParkDC" initiative. The purpose of the pilot is to evaluate managing Washington, DC's curbside and parking assets through demand-based pricing to influence parking space availability, which would have a positive effect on traffic congestion.
- Washington, DC is partnering with Pepco on a "Smart & Connected Corridor" pilot project by installing high-capacity Wi-Fi on Pepco-owned street light poles along a one-mile corridor in the city. The pilot will provide public Wi-Fi services for citizens and allow the city to evaluate the positive effects of Wi-Fi and other smart city innovations in an underserved mixed business/residential area.
- Pepco has deployed 279,000 smart meters in Washington, DC.

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