



## Office of the Ohio Consumers' Counsel

Your Residential Utility Consumer Advocate

# CONSUMERS' FACT SHEET

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# OHIO'S PROGRESS TO THE SMART GRID



Utility companies are upgrading the electric power system with “smart grid” technologies. The Office of the Ohio Consumers' Counsel, your residential utility consumer advocate, has developed this fact sheet to update consumers about their utility's progress toward implementing smart grid technologies. For an explanation of the smart grid, see [“An Introduction to the Smart Grid,”](#) another fact sheet from the OCC.

### About the smart grid

Utilities have been upgrading their systems with the installation of smart meters at consumers' homes and businesses. The smart meters can be read remotely (that is, without a person visiting the home to physically look at the meter) and can provide electric usage information to the utility and the consumer on an hour-by-hour or even minute-by-minute basis. Smart meters will also allow utilities to disconnect and reconnect service without sending company personnel to your home. Technological upgrades also will be made

to local and regional power lines and utility information systems to make the delivery of electricity more efficient and potentially more reliable.

Each electric utility in Ohio has progressed with smart grid upgrades at different rates. The smart grid projects of American Electric Power, Duke Energy Ohio, and FirstEnergy were started with federal grants. The Public Utilities Commission of Ohio has even launched its own smart grid initiative. The following is the most up-to-date smart grid information available:

### Public Utilities Commission of Ohio

In 2017, the Public Utilities Commission of Ohio announced its plan to evaluate and analyze the future of upgrading the electric power system with smart grid technologies in Ohio. The PUCO calls this initiative “PowerForward.” In PowerForward Phase I, various parties, including the OCC, shared their general views on grid modernization, such as the potential benefits and costs of upgrading

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The Office of the Ohio Consumers' Counsel (OCC), the residential utility consumer advocate, represents the interests of 4.5 million households in proceedings before state and federal regulators and in the courts.

The state agency also educates consumers about electric, natural gas, telephone and water issues.

For more information, please visit the OCC website at [www.occ.ohio.gov](http://www.occ.ohio.gov).



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the grid. Phase II focuses on specific technological innovations, and Phase III focuses on regulatory issues, including who might pay for smart grid proposals and how.

### **American Electric Power**

American Electric Power's smart grid project, gridSMART, has installed smart grid technologies including approximately 132,000 smart meters in Central Ohio, distribution automation on 70 circuits, and volt-var optimization ("VVO") on several circuits. AEP has received approval from the PUCO to deploy another 894,000 smart meters, to deploy distribution automation on another 250 circuits, and to continue expanding VVO capabilities. Since 2016, AEP has sought additional technological upgrades, such as AEP-owned electric charging stations, battery storage, micro-grids, and smart street lighting.

### **Duke Energy Ohio**

Since 2008, Duke Energy Ohio has completed its smart grid deployment and has installed approximately 730,000 smart meters in the Cincinnati area. Duke now plans to replace the majority of smart meters and communications infrastructure with new smart meters, at consumer expense, because the old smart meters are obsolete.

### **FirstEnergy**

FirstEnergy is in the early stages of expanding its smart grid in Ohio. FirstEnergy has installed 34,000 smart meters in the Cleveland area. In late 2016, the PUCO authorized FirstEnergy to charge customers over \$200 million a year through their utility bills. FirstEnergy could use the new charge for grid modernization, but FirstEnergy is not required to. To date, FirstEnergy has not submitted any specific proposals for further smart grid projects.



### **Dayton Power & Light**

DP&L was the only investor-owned utility in Ohio that did not receive a federal grant to assist with costs of deploying the smart grid system. It submitted a smart grid plan to the PUCO in 2008, but later voluntarily withdrew it after costs became too high. In March 2017, DP&L stated in a settlement agreement that it will file a grid modernization plan shortly after the PUCO's PowerForward initiative is complete or, at the latest, by February 2018. This settlement is pending before the PUCO.

As utilities in Ohio continue to propose new smart grid upgrades, the OCC will be vigilant in its review of each utility's smart grid proposal. The OCC strongly advocates that smart grid upgrades should be evaluated using traditional regulatory principles. Any upgrades should be prudent, and any new technology should be used and useful before consumers are required to pay for it. At a minimum, the benefits of smart grid should exceed the costs of implementation, and the cost savings should be returned to consumers by offsetting electric rates.