

Massachusetts Paves the Way toward Smart Grid Goals

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Pursuing the environmental, technological and economic advantages a smart grid can provide to utilities and their customers, the Massachusetts Department of Public Utilities (DPU) has issued [an order containing a draft proposal to advance utilities' introduction of smart grid equipment](#).

The proposal says smart grid technology can reduce power outages, cut electricity costs, improve energy efficiency, help utilities manage power demand, prepare the grid for electric vehicles, and respond to weather emergencies.

The DPU plans to require investor-owned utilities to set up 10-year plans for smart grid development, technology and maintenance. These plans will address how utilities plan to modernize all aspects of the grid that they control in Massachusetts. Utilities will submit new plans every five years.

In Worcester, [National Grid has already set up a smart metering pilot program](#). Last year, this program [met with resistance from local advocates](#) concerned about health, data privacy, and grid security.

The advocates cited research from several organizations, including [Bioinitiative](#), a small international group of health professionals supporting restrictions on radiation from electromagnetic equipment.

[A fact sheet from the Smart Grid Consumer Collaborative](#) says the World Health Organization has found smart meters pose no public health risks. The radiation from the meters is unlikely to affect homeowners' health, the fact sheet says, because its level is low and it is only present for a few minutes each day. Cell phone use produces radiation exposure at much higher levels of magnitude than smart meters do.

Although [research from MIT](#) says customers might overload the electric grid by synchronizing their appliance use if pricing is not managed appropriately, this risk seems manageable.

Privacy is one of three topics the proposal highlights for action in subsequent proceedings. Given current international concerns about data transparency and cybersecurity, it seems reasonable to give additional thought to ways of keeping utility data confidential.

The proposal mentions utility customers' data can be used for domestic appliance management and shared with ISO-New England, a regional planning organization. Both of these uses of data present potential privacy issues.

Electric vehicles will be addressed in a new proceeding as well. The DPU order anticipates demand for electric vehicles will grow in Massachusetts during the next few years, potentially placing stress on the power grid.

Some public skepticism may remain as these smart grid goals move forward. So far, National Grid has responded to these concerns by allowing pilot program participants to opt out of receiving the meters. However, in the long term, improved communication between utilities and customers about the safety and security of smart grid technology may be key to its public acceptance.