

## **Smart Meters Are a Key Component of a Healthier, More Efficient and More Competitive Energy System**

EDF's number one priority is environmental and public health safety, and we are happy that the Texas Senate's Business and Commerce Committee is working hard to ensure the health of Texans is protected. We advocate for a "smart grid done right" that will unlock air quality, climate pollution and public health benefits by enabling two-way, real-time communication that gives households, small businesses, manufacturers and farmers (and the utilities that serve them) the information they need to cut energy use and electricity costs, and we are not alone in this effort.

EDF is one of many environmental organizations strongly advocating for grid modernization as the clear path to lessening our dependence on fossil fuels and moving us toward a clean, healthy, low-carbon energy system. Smart meters are a key component of the smart grid and will help ensure that every day energy users reap the many benefits of the smart grid. Our science team continues to thoroughly assess the best available science on this topic and our work with utilities, regulators and the smart grid industry to protect the environment and the health of customers, including the research discussed in our testimony below.

For several years, EDF has championed a modernization of the U.S. electric grid that makes use of wireless smart meters to keep better track of power use, in order to help people and utilities find ways to:

- reduce overall and peak demand;
- eliminate huge waste in the system; and
- enable significantly greater use of clean, renewable energy, non-polluting electric vehicles, and community-based resources.

Smart meters are key to realizing these benefits, because they allow for two-way, real-time communication that gives households and utilities the data they need to cut usage and costs.

### **Understanding the Science of Potential Smart Meter Health Impacts**

EDF has researched health concerns related to smart meters in response to concerns from our own members, public officials and concerned citizens. Our research has included a survey of the best available research in the field of electromagnetic and radio frequency radiation (EMF/RF) including studies from the World Health Organization, the Electric Power Research Institute, and the report by the California Council on Science and Technology. In addition to our survey of existing research on potential health impacts resulting from smart meter EMF/RF radiation EDF has consulted with

outside experts who are much more focused on the dangers of EMFs and RFs. Attached to this testimony I am including EDF's "Smart Grid Benefits Fact Sheet" which includes important details from our research and the work of others.

One of the health experts we talked to was Dr. Leeka Kheifets, PhD, Professor in Residence at UCLA, Epidemiology, who sits on the Standing Committee on Epidemiology for the International Commission on Non-Ionizing Radiation Protection. Our meeting with Dr. Kheifets helped inform our position that the limited RF exposure levels associated with smart meters should not result in reduced support for the smart grid. Whether or not future studies find the overall RF problem to be significant, smart meters are a very small part of that problem. At the same time, the smart grid brings great environmental benefits: reduced greenhouse gases, reduced burning of fossil fuels and enhanced integration of solar and wind power.

### **The Relative Benefits and Risks of Smart Meter Health Impacts**

People who are more focused on human health than on environmental sustainability also have compelling reasons to support the smart grid. The smart grid can cut air pollution from the electric utility sector as much as 30% by 2030. That would reduce what is now the tragedy of more than 34,000 deaths a year from power plant pollution, more lives than are lost on U.S. highways. Dirty air also worsens asthma and lung disease, especially among children and the elderly, with more than 18 million acute respiratory symptoms annually.

Research shows that every day humans come into contact with RFs from a wide variety of sources, including – but not limited to – wireless or cellular phones, microwaves, wireless internet routers, hair dryers, baby monitors and wireless laptops. Each has varying levels of exposure that depend on the technology and – importantly – on distance from the source.

### **Concluding Remarks**

As stated above, EDF's number one priority is environmental and public health safety, and we welcome the opportunity to discuss potential health concerns related to smart meters. I would be happy to discuss these issues in more detail with any interested members, please contact me if there are any questions related to my testimony or other questions regarding Texas' smart meter deployment.

Thank you,

Colin Meehan  
Clean Energy Analyst  
Office: 512-691-3416  
cmeehan@edf.org