

Smart Grid and You—The Consumer

So what's all this fuss about something called Smart Grid? The president mentioned it in his inaugural speech. Then he asked Congress "to act without delay" to pass legislation to double alternative energy production and build it.

What is it? It's electricity with a brain! It listens, processes, and even responds. Bottom line, it's all about adding "intelligence" to our aging electric power infrastructure and delivery systems, from the power plant to the appliances inside your home.

The experts at NEMA maintain that the primary goal of upgrading today's transmission and distribution grid into the Smart Grid is to maximize and manage the power transfer capacity of the dumb grid—to squeeze more efficiency out of the existing grid infrastructure through the use of intelligent, automated supply and demand devices. It's a dynamic system that will allow for greater choices by the consumer.

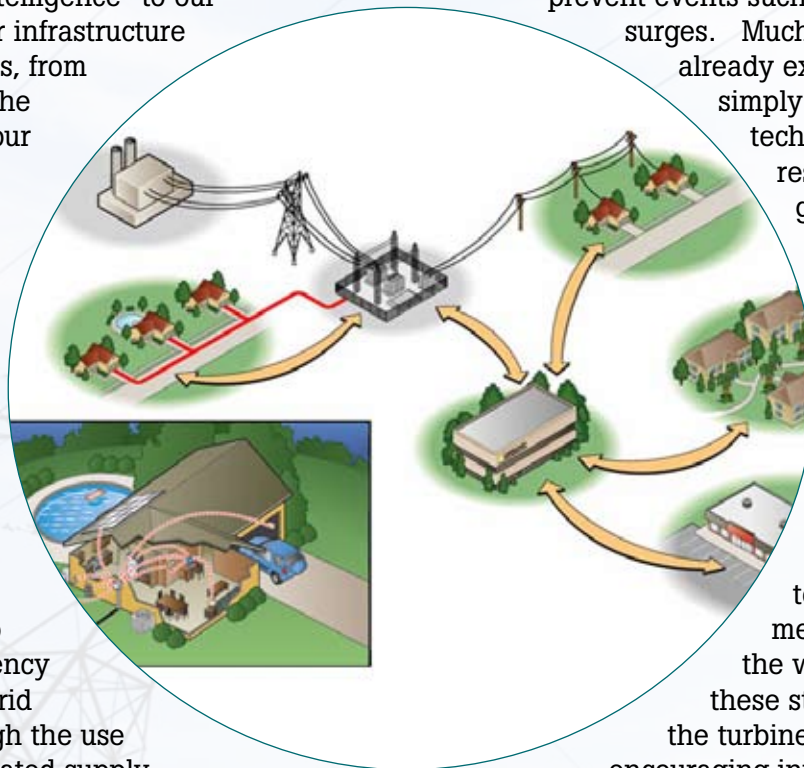
The basic concept is to add monitoring, analysis, control, and communication capabilities to the national electricity delivery system. This in turn can maximize the output of equipment, help utilities lower costs, improve reliability, decrease interruptions, and reduce energy consumption. NEMA also believes that the government should provide tax and other incentives for companies

that produce, transport, and consume electricity more efficiently.

Smart consumer devices, such as lighting and energy controls, help consumers respond to changing prices. Similarly, smart utility devices automatically adjust to changing conditions, whether man-made or natural disruptions, to prevent events such as blackouts and surges. Much of this technology already exists. Smart Grid simply combines these technologies into a more responsive electrical grid.

However, it's the lack of agreement on standards, increasing upfront costs, and how these systems will work together that hinder the use of Smart Grid technologies. NEMA members are leading the way in developing these standards, from the turbine to the plug, and encouraging investment in these technologies and incorporation into the national electricity grid.

So it's not just about energy efficiency, but also about energy management at the consumer level. Public information and education must be aggressive so that everyone can take advantage of Smart Grid technologies and better manage energy usage, thus reducing energy costs and carbon emissions. Smart Grid technologies will ultimately revolutionize how energy is delivered and consumed. **And that's just smart.**



**Image courtesy of Southern California Edison*



The Association of Electrical and Medical Imaging Equipment Manufacturers
1300 North 17th Street, Suite 1752, Rosslyn, Virginia 22209

Contact NEMA Communications Department at communications@nema.org