COMMENTARY

SMART GRID TECHNOLOGY: THE FUTURE OF THE ELECTRIC UTILITY INDUSTRY

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Energy is leading many agendas these days, and, indeed, the energy landscape is changing—taking it a step further, it is actually transforming. This could be as big a transformation for the electric utility industry as the automated teller machine was for the banking industry and the cell phone was for telecommunications.

We have all heard about different ways to produce electricity, from traditional sources, such as natural gas, to renewable sources, such as solar and wind. While new, more efficient ways of producing electricity have always been top of mind, communities across the United States have recently begun investing in infrastructure referred to as smart grid and smart meters, a technology that enables customers to actively manage their energy experience in an unprecedented, hands-on manner.1

In October of 2009, NV Energy was fortunate to have received a $138 million grant in stimulus funding from the U.S. Department of Energy (“DOE”) to put towards a $298 million smart grid/smart meter project called Advanced Service Delivery

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This project will allow for the implementation of smart grid/smart meter technology throughout Nevada. This is a game changer for our industry, and it is especially important for Nevada. For one, NV Energy electrically serves most of the state, and that scope sets apart our ASD project from many of the other existing and planned smart grid projects. This new technology will stretch across our 54,600 square-mile service territory and reach nearly ninety-five percent of Nevada’s population, giving almost 2.5 million people the opportunity to create their own energy experience.

Nevada’s smart grid will feature home-area networks that combine two-way advanced metering via smart meters, which are small in-home displays that provide customers with real-time information about their energy usage. Through smart meters, customers will be able to see both the current cost of power per kilowatt hour and what it will be in the next hour, so that they may adjust usage accordingly. In many instances, the differences are significant, and customers who choose to conserve power during higher-priced hours will see the savings on their power bill. NV Energy customers will also be able to see where they stand on


7. See id.; see also OFFICE OF ELECTRIC DELIVERY AND ENERGY RELIABILITY, U.S. DEP’T OF ENERGY, supra note 1, at 10–11.

8. See Robison, supra note 6; see also OFFICE OF ELECTRIC DELIVERY AND ENERGY RELIABILITY, U.S. DEP’T OF ENERGY, supra note 1, at 13–14.
their current monthly bill in real time, which may also affect how they use their energy.9

Smart meters also provide more choices to our customers. For example, customers can elect to supply their homes with electricity generated from renewable energy sources, but if the price becomes too high they can switch to more traditional sources, and vice versa.10 NV Energy customers will also enjoy the effects of operation savings associated with this new technology. ASD will lower operational costs and allow for better demand management, possibly curtailing the need for investment in new power plants.11

The smart grid infrastructure project brings with it the added bonus of economic stimulus. It is estimated that the installation of new smart meters alone will create approximately 200 jobs in the early stages, and this only skims the surface of other jobs that will be needed to plan, deploy, install, and market the benefits of this new technology.12

NV Energy will begin implementing a pilot program for its ASD system within the next few months, with the ultimate goal of 1.45 million smart meters in homes and businesses across the state by 2012.13 Smart grid technology will dramatically redefine the relationship between utilities and their customers, making the effects of conservation on energy use much more tangible. This is a game changer for all of us, and NV Energy will help lead the way.

10. Id.
12. Robison, supra note 6.