



July 12, 2010

U.S. Department of Energy
Office of the General Counsel,
1000 Independence Avenue, SW.
Room 6A245
Washington, DC 20585

**Subject: Implementing the National Broadband Plan by Empowering
Consumers and the Smart Grid: Data Access, Third Party Use, and
Privacy**

To Whom It May Concern:

The United States Telecom Association (USTelecom)¹ is pleased to comment on the Request for Information (RFI) of the Department of Energy (DOE) in its proceeding² requesting input from the public regarding current and potential practices and policies to empower consumers through access to detailed energy information in electronic form. USTelecom strongly supports DOE's efforts to ensure widespread adoption, use and innovation in the Smart Grid technologies and services marketplace. A central tenet for achieving this outcome is to ensure, as DOE stated, that Smart Grid technology "adequately respects consumers' reasonable—and often widely differing—expectations of privacy."³ Consumers will more readily accept and adopt Smart Grid technology if they have assurances that their privacy is being protected and that they understand and can exercise a reasonable degree of control over the use of the personal data that is collected.

I. Introduction.

Central to the success of Smart Grid technologies and services, is an embrace of policies that include competition, consumer choice and empowerment and open standards. At this critical juncture – during the nascent stages of Smart Grid development – it is imperative that DOE and other federal and state policy-makers correctly assess these issues and develop policies in cooperation with the private sector that will achieve these goals.

**II. Consumers Should Control Their Energy Usage Data, and Should be Permitted to
Share that Data with Third Party Providers.**

Individual consumers, or their authorized third-party service providers, should have the right to access energy usage data directly from the utility Smart Meter, without the involvement

¹ USTelecom is the premier trade association representing service providers and suppliers for the telecommunications industry. USTelecom members provide a full array of services, including broadband, voice, data and video over wireline and wireless networks.

² Implementing the National Broadband Plan by Empowering Consumers and the Smart Grid: Data Access, Third Party Use, and Privacy, 75 Fed. Reg. 26203 (May 11, 2010) (*DOE Notice*).

³ *DOE Notice*, p. 26,203.

of the utility. Such an approach to Smart Grid information will best achieve many of DOE's stated goals, including striking the appropriate balance for both states and consumers to "retain the flexibility to strike a range of reasonable compromises between the benefits of data collection and access, and the protection of personal privacy."⁴

It is important to note that the Smart Grid initiative being discussed by DOE and others represents a clean slate from which to work. As such, it presents an ideal opportunity to structure the right approach to ensure the optimum development of Smart Grid technology and services while building in "privacy by design." In order to create an environment where innovation and consumer choice will thrive, while protecting personal privacy, DOE should ensure that consumers are empowered to choose whether to share their electric usage information, and with whom. Whether consumers choose to share their information with the provider of the Smart Meter or with a third-party provider, the privacy standard must be the same. Consumers should be able to expect the same level of privacy protection and choice for the collection and use of comparable data irrespective of the entity involved. That is what consumers expect and what affords them the necessary privacy protection. Moreover, parity fosters competition among all entities that are able to provide comparable services, which spurs innovation that benefits consumers.

To be meaningful, consumer choice must be informed choice. The consumer must be given a simple way to make a meaningful choice based upon an understanding of the available options. This requires that consumers be clearly presented with an explanation of how the collector of the data intends to use it and that consumers take some affirmative action that signals that they have considered the options and determined how they wish their information to be used. If the service provider proposes to use the data for additional purposes such as providing the consumer with targeted advertising, consumers must have a clear understanding of how the information will be used and by whom and provide affirmative consent to such additional use. The data must be afforded the same level of security as the original provider undertook to provide in its privacy policy.

This means, that the consumer must have an opportunity to review a service provider's privacy. Too often privacy policies are lengthy, legal documents that are unintelligible to consumers and are buried somewhere on the service provider's website or in its terms of service. USTelecom's members are leading a movement to reform privacy policies, so that they are written in plain English and provide consumers with the information that matters most to them. For example, communications providers such as Verizon and AT&T, which offer a host of different services and products, have recently completed comprehensive revisions to their privacy policies, creating a gold standard of consumer friendly privacy information. Their privacy policies are on a click-through menu accessible from the landing page of their websites. They have one integrated privacy policy that covers all products and services, written in language that is clear to consumers and presented in a way that engages them in understanding and making informed choices.

Such empowerment will better enable consumers to make informed decisions about their energy use, while at the same time fostering a host of competitive choices that can best meet individual consumer's service and privacy needs. As can be the case with seemingly innocuous

⁴ DOE Notice, p. 26,205.

data, certain information – such as time-of-day patterns of energy usage – could provide insight into information that some consumers would consider to be sensitive. As such, all providers of Smart Grid services should ensure that stringent privacy protection measures are in place for consumers and that consumers have the opportunity, to choose the level of privacy for the data that they feel is appropriate. Any access to such information should be appropriately secure, and the service provider should be responsible for protecting the privacy of the consumer's data and ensuring that a consumer's informed choices are implemented. USTelecom's members are already well versed in the protection of personal information.⁵

III. Open and Secure Standards are Necessary for Smart Grid Initiatives to Evolve to Their Full Potential.

Key to the success of any Smart Grid initiatives will be the adoption and implementation of open and secure standards. Adoption of such standards will help foster an ecosystem where third-party Smart Grid technologies and services will thrive and develop to their full potential.

The electric utility's smart meter should therefore *not* be the sole gateway for energy management data. Instead, the smart meter should only focus on three data sets: aggregate residential energy use, electricity price data and demand response signals (*i.e.*, signals designed to request curtailment of energy consumption to reduce peak load on the network). As noted by industry participants in other Smart Grid proceedings, rather than passing through the smart meter, "the bulk of the consumer energy-usage data from inside the home should travel over an interface driven by the consumer's choice of an energy management application provider."⁶

Adoption of such open standards will ensure a more competitive and innovative marketplace in the Smart Grid environment. Enabling a variety of applications to co-exist on a single home network infrastructure will deliver greater value to consumers, accelerate adoption of these applications and control costs by increasing scale economies for component producers and service providers. Moreover, greater demand for such devices and applications relying on residential broadband will increase broadband adoption, furthering state and national goals for expanded broadband connectivity. Indeed, such open standard policies have been adopted and implemented with great success in other consumer-centric marketplaces.

Perhaps the best example of such open standards policy can be seen in the widespread deployment of unlicensed wireless networks and devices through the processes established by the Institute of Electrical and Electronics Engineers (IEEE). One of the more notable IEEE standards is the IEEE 802.11 Wireless Networking standard (Wi-Fi), which has enabled the widespread deployment and adoption of wireless local area network computer communication in

⁵ Section 222 of the Communications Act requires telecommunications carriers to take specific steps to ensure that customer proprietary network information (CPNI) is adequately protected from unauthorized disclosure. The FCC's rules regarding CPNI can be found at 47 C.F.R. §§64.2001 – 64.2011.

⁶ See, AT&T Comments, p. 3, submitted in response to, Office of Science and Technology Policy, *Consumer Interface with the Smart Grid*, 75 Fed. Reg. 7,526 (Feb. 19, 2010).

the 2.4, 3.6 and 5 GHz frequency bands.⁷ These Wi-Fi devices have become nearly ubiquitous presence in countless consumer and business related devices.⁸

Similarly, the Federal Communications Commission (FCC) in its National Broadband Plan is focused on further increasing broadband deployment and adoption through the development of “an open market” in set top box devices.⁹ The FCC believes that the widespread presence of both computers and televisions in consumers’ homes, has created a “critical time to promote innovation” in the broadband market that could support its effort to “drive broadband adoption and utilization.”¹⁰ As such, it intends to take “an active role in formulating a solution that will spur the development of a retail market” for such devices that work across all manner of video delivery platforms.¹¹

At the same time, adoption of any standard data communications interface by appliances and the smart meter or data gateway should be avoided. Rather than arbitrarily pick technological winners or losers through adoption of a stringent standard for such devices, DOE should encourage entrepreneurial innovation in this area. Consumers within the relevant marketplace are the best indicator for determining the most appropriate interfaces, and DOE should therefore avoid trying to establish a single interface standard. Such an approach will help better address one of the DOE’s stated concerns that the value of the Smart Grid to consumers, utilities, and third parties “depends upon its capacity to encourage and accommodate unpredicted innovations while making usage data reasonably available to those who should have it.”¹²

Through the adoption of open standards, DOE and other stakeholders seeking to develop the nascent Smart Grid marketplace will better ensure the development of a fertile ecosystem where competition, innovation and consumer benefits will thrive.

⁷ Wi-Fi enabled devices are present in personal computers, video game consoles, smartphones, printers, and other peripherals, and virtually all laptop or palm-sized computers.

⁸ One report notes that over the past several years, shipments of just Wi-Fi enabled entertainment and Personal Media Player devices (handheld and console) increased from 83 million units in 2007 to 119.3 million units in 2009. According to the same article, this growth trend is expected to continue, with total shipments growing to 216.4 million units by 2013. PR Newswire, *Wi-Fi Becomes the Multimedia Interface of Choice*, January 19, 2010 (available at: http://sanfrancisco.bizjournals.com/prnewswire/press_releases/New_York/2010/01/19/NE39735) (visited March 10, 2010). Similarly, Federal Communications Commission Chairman Julius K. Genachowski recently delivered a speech in which he noted that the Wi-Fi marketplace “has been a proven testbed for emerging competition, injecting new investment and innovation . . . and spawning new services and devices.” He also noted that the market for Wi-Fi network equipment “alone is about \$4 billion a year, and analysts project the market for WiFi-enabled *health* products will reach \$5 billion by 2014.” See, Prepared Remarks of Chairman Julius Genachowski Federal Communications Commission, New America Foundation, Washington, D.C., *Mobile Broadband: A 21st Century Plan for U.S. Competitiveness, Innovation and Job Creation*, February 24, 2010 (available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296490A1.pdf) (visited March 10, 2010) (emphasis added).

⁹ National Broadband Plan Policy Framework, December 16, 2009 – FCC Open Meeting, p. 19 (available at: http://www.fcc.gov/Daily_Releases/Daily_Business/2009/db1216/DOC-295259A1.pdf) (visited March 9, 2010).

¹⁰ FCC Public Notice, *Comment Sought On Video Device Innovation*, NBP Public Notice # 27, DA 09-2519, p. 2 (December 3, 2009) (available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-09-2519A1.pdf) (visited March 9, 2010).

¹¹ *Id.*, p. 2.

¹² *DOE Notice*, p. 26,203.

IV. USTelecom's Member Companies are Ideal Partners in the Deployment and Adoption of Smart Grid Services.

As the nation moves towards the development and build-out of smart grid technology, USTelecom's member companies are ideal partners to effect the widespread deployment and adoption of Smart Grid services. Their respective broadband footprints, which closely mirror those of the electric utility industry, ideally position these companies to develop, deploy and provide Smart Grid related services to consumers.

USTelecom's member companies already provide a full array of services to consumers, businesses and government agencies at the local, state and federal levels. These suites of services range from traditional voice telephony, consumer broadband and video, as well as managed secure services for businesses and government agencies. Consumers and businesses alike are reaping the benefits that broadband networks afford.

The central role played by USTelecom's members in providing these broad ranges of services demonstrates their potential as ideal partners in any Smart Grid initiatives. Their expertise in providing these services has been achieved in a manner that ensures ease of use, widespread adoption, and innovation.

V. There are Numerous Consumer and Public Policy Benefits that will Result from Deployment of Smart Grid Technologies and Services.

In addition to the numerous public policy benefits, deployment and adoption of Smart Grid services and technology will greatly benefit consumers. For example, consumers will be empowered to monitor, control and optimize their home energy use, which in turn can improve the reliability, security, and efficiency of the electric grid. The widespread use and adoption of these technologies will ultimately result in efficiencies that benefit *all* consumers through real time load dispatch and more efficient utilization of generating capacity.

Consumers are already embracing the empowering potential of broadband technologies in other areas as home networks are becoming increasingly prevalent throughout the United States. For example, twenty years ago consumers consumed video content in their homes almost entirely through the linear programming.¹³ Today, those same consumers are managing their entertainment services through remote scheduling, multi-room digital video recorders and on-demand viewing. Yesterday's viewing options consisting of 60 rigid cable channels have been replaced with a near limitless library of hundreds of channels, recorded programming, on-demand viewing and 'over-the-top' programming content choices.

Similar enabling consumer technologies can be found in home and business security services that are broadband enabled. Consumers and businesses today can remotely monitor their homes, loved ones and businesses through a wide range of third-party security services. These services include live (and recorded) video feeds, remote health-monitoring and even remote monitoring of critical home infrastructure (*e.g.*, plumbing, heating, etc.).¹⁴

¹³ Linear programming is programming offered on a set schedule on specific cable channels.

¹⁴ Billie Cohen, *Keeping Track From Afar*, New York Times, February 8, 2008 (available at: <http://travel.nytimes.com/2008/02/08/travel/escapes/08your.html?scp=2&sq=remote+monitoring+%22vacation+home%22&st=nyt>) (visited July 12, 2010).

The functionalities and consumer empowerment discussed above offer an exciting prelude to what may be possible with Smart Grid technology. For example, consumers will be able to monitor and adjust their thermostats, water heaters and other appliances through an online Smart Grid portal. Such portals could potentially empower consumers to control their energy devices, schedule their energy usage (*e.g.*, during non-peak times in order to save money), receive automated alerts and even publish reports regarding their energy usage.

Consumers will have the ability to accomplish these tasks outside the home through their portable communications device. As one participant in a Smart Grid test in 2007 stated, “[i]t is also great fun to sit at a picnic table in an RV park and jump on line through a Wi-Fi connection and tell the water heater and heat pump in our house to wake up and get to work, we’re coming home early. When we arrive home the house is warm and the water hot – a good deal indeed.”¹⁵

Consumers’ demonstrated desire for such technologies and services, and their eagerness to embrace them, supports the view that this is an ideal time to pursue policies that enable innovators to create new applications based on residential utilization data. Indeed, in the Smart Grid project referenced above, the report concluded that residents “eagerly accepted” the Smart Grid technology, with 95% of residential participants stating they would be likely or very likely to participate in a similar project in the future.¹⁶ The deployment and availability of Smart Grid technologies and services by third-party providers will offer consumers the tools they need to control and optimize home energy use.

But consumers would not be the only beneficiaries of such services. DOE appropriately highlights the numerous other public policy benefits that will accrue from deployment of Smart Grid services. For example, it notes that Smart Grid technology will play a “critical role in achieving national priorities like enabling new ways to enhance energy efficiency, enhancing national competitiveness, improving national security by increasing our energy independence, and developing sustainable, long-term energy strategies that protect our environment and economy.”¹⁷ This in turn, will be a key factor in reducing our Nation’s dependence on foreign oil, creating jobs, and helping U.S. industry compete successfully in global markets for clean energy technology.

In addition, Smart Grid technology has the potential for significant job creation. According to one report, government investments of \$16 billion or more in Smart Grid technologies could result in the creation of up to 280,000 new jobs, with 150,000 being created in the first year alone,¹⁸ and 140,000 of which would persist long term.¹⁹ The same report

¹⁵ See Report, *Pacific Northwest GridWise™ Testbed Demonstration Projects, Part I. Olympic Peninsula Project*, p. 8.12 (October 2007) (available at: http://gridwise.pnl.gov/docs/op_project_final_report_pnnl17167.pdf) (visited July 12, 2010) (*GridWise Report*).

¹⁶ *GridWise Report*, p. 9.2.

¹⁷ *DOE Notice*, p. 26,205.

¹⁸ See, KEMA Report, *The U.S. Smart Grid Revolution, KEMA’s Perspectives for Job Creation*, December 23, 2008, p. 1-1 (available at: http://www.smartgridnews.com/artman/uploads/1/KEMA_s_Perspectives_for_Job_Creation.pdf) (visited July 12, 2010) (*KEMA Report*).

¹⁹ *KEMA Report*, p. 1-1.

concluded that the same level of investment could catalyze an additional \$64 billion in related projects.²⁰

VI. Conclusion.

USTelecom strongly supports DOE's efforts directed towards ensuring widespread adoption, use and innovation in the Smart Grid technologies and services marketplace, while also ensuring protection of consumer privacy. USTelecom's member companies are ideal partners in the Smart Grid marketplace, and can help achieve the widespread deployment and adoption of Smart Grid services. Such widespread adoption, use and innovation in the Smart Grid technologies and services marketplace can best be achieved by embracing policies that promote competition, consumer choice and empowerment and open standards.

Respectfully submitted,

UNITED STATES TELECOM ASSOCIATION

A handwritten signature in blue ink that reads "Jonathan Banks". The signature is fluid and cursive, with the first name "Jonathan" written in a larger, more prominent script than the last name "Banks".

By: _____

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²⁰ *Id.*