



## GridWise Alliance Policy Position on Data Access & Privacy Issues

Final Draft: September 12, 2011

### Executive Summary

Gridwise Alliance commends state regulators for their efforts to ensure that care for privacy concerns is “baked in” to the smart grid in order to allow consumers to make meaningful choices about how their data is used and to otherwise respect consumers’ privacy interests. The Alliance points out that the success of home-energy management applications will depend on the development of a robust, workable policy framework for privacy protection. The energy-use data issues involved extend beyond the question of utilities sharing data gathered from smart meters with third parties. Utility sharing with third parties is an important issue, of course. However, consumer energy-use data can and will be collected not only from smart meters, but from smart appliances, smart thermostats, plug-in electric vehicles and more. Each additional point of data collection creates a potential privacy challenge by generating extra information about the lifestyle and habits of the individuals with whom it is associated.

Gridwise Alliance recognizes this poses a challenge for state regulators who have direct jurisdiction over smart meters but may not have jurisdiction over the other technologies, vendors and activities that comprise the smart-home marketplace. Nonetheless, to be effective in protecting consumer interests, a privacy policy framework for the smart grid and for smart homes must be crafted in a way that addresses the privacy issues that arise from the collection, use and retention of such data no matter from what source it is collected.

In order to care for privacy concerns in a way that will foster the emergence of a robust market for energy management services, the Alliance urges a nationally accepted approach to privacy and energy-use data. Such an approach will build on the fact that – in the context of addressing privacy concerns in a world of online information - energy-usage information is not inherently different from other kinds of information that move around in cyberspace, like a Netflix viewing list. All provide potential insight into the activities and interests of the people with whom the information is associated. Thus, a nationally accepted approach to privacy and energy use will build on the ongoing national discussion of a policy framework for commercial data, privacy and innovation in today’s Internet economy.

Gridwise Alliance recommends that privacy concerns for energy-use data be addressed by the application of Fair Information Practice Principles (FIPPs)<sup>1</sup> and by encouraging utilities, service providers and other interested stakeholders to develop voluntary, enforceable codes to which all will subscribe and abide, based on FIP principles like transparency and choice.

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<sup>1</sup>Federal Trade Commission, Fair Information Practice Principles, [www.ftc.gov/reports/privacy3/fairinfo.shtm](http://www.ftc.gov/reports/privacy3/fairinfo.shtm).

## **Energy Use Data, Access and Privacy**

### **Introduction:**

The Gridwise Alliance is an organization with more than 135 members representing a broad range of the energy supply chain, from utilities and large technology and communications companies, to academia, venture capitalists and emerging technology companies. Alliance members strongly support the development of both a smart grid and of smart homes and buildings, which entails the deployment of information and communications technologies (ICT) into both the electric grid and into homes, buildings and apartments.

These technologies – when deployed in the electric grid itself – offer many benefits by increasing reliability, enabling greater efficiency, avoiding capital costs associated with new power plant construction, curbing greenhouse gases and other emissions by enabling more solar, wind and other energy sources to be incorporated into the grid, and enabling two-way interactions with customers.

Much of the benefit expected to result from smart grid investments, however, will be realized only through consumer adoption of energy management services and smart-home and building applications that will evolve in parallel with the smart grid itself, such as solutions that enable customers to monitor and control their businesses and homes' energy consumption and become more receptive to demand response programs.

End-use-level energy-use data is a necessary input for solutions like energy management services. Ensuring access to such data will be discussed in Section I. At the same time, consumer confidence that their privacy will be protected is necessary to foster an environment that enables new smart-home, vehicle and equipment technologies and applications to flourish. Gridwise Alliance's recommended approach to addressing privacy concerns will be discussed in Section II.

### **Section I -- Access to Energy Use Data:**

To ensure innovation in the market for energy management solutions, the Alliance recommends policymakers focus on fostering a vibrant, open and competitive market for these services. To that end, Gridwise Alliance urges policymakers to (1) minimize barriers to entry for smart-home technologies and solutions in the residential market; and, (2) ensure equal and open access to essential inputs, such as the installation of equipment sensors and access to end-use-level data from smart meters if available. This last point warrants additional discussion.

Certainly consumers can install equipment like TED<sup>®</sup> energy monitoring devices or their own "personal" smart meter.<sup>2</sup> But given the importance of consumer engagement and comprehensive energy services to the goal of realizing the benefits of smart grid investments, Gridwise Alliance believes it is important to have policies that will ensure consumers have the ability to access detailed energy-use data generated by smart meters when these are deployed. Meter data is very cost-effective complement to equipment sensors as an input source for advanced home-energy management solutions.

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<sup>2</sup> TED<sup>®</sup> stands for "The Energy Detective" and is a registered mark of Energy Inc.

An electric utility needs the ability to recover the cost of meter deployments and must be able to control access to the data it needs to operate the grid, track usage and invoice customers. But at the same time, the vast majority of smart meters in the market today have the ability to communicate wirelessly and securely with home area network (HAN) equipment at no additional cost. Gridwise Alliance urges policies to ensure such meter-to-HAN communications capabilities are enabled upon request by a consumer or by her authorized agent whenever a utility deploys a smart meter. Of course, policies should also protect against unauthorized disclosures by third parties of sensitive consumer data and ensure that liability is appropriately assigned.

## **Section II – Consumer Confidence, Innovation and Privacy Protections:**

The success of energy management applications will depend on the development of a robust, workable policy framework for privacy protection. The energy-use data issues involved extend beyond the question of utilities sharing data gathered from smart meters with third parties. Utility sharing with third parties is an important issue, of course. However, consumer energy-use data can and will be collected not only from smart meters, but from smart appliances, smart thermostats, plug-in electric vehicles and more. Each additional point of data collection creates a potential privacy challenge by generating extra information about the lifestyle and habits of the individuals with whom it is associated.

Gridwise Alliance recognizes the situation just described poses a challenge for state regulators who have jurisdiction over smart meters but may not have direct jurisdiction over the other technologies, vendors and activities that comprise the smart-home marketplace. Nonetheless, to be effective, a privacy policy framework for the smart grid and for smart homes that puts consumers in control of their data in a meaningful way should be crafted in a way that addresses the privacy issues that arise from the collection, use and retention of such data no matter from what source it is collected. The framework should not be limited by the jurisdictional limits of a state regulatory body. Gridwise Alliance believes this can be accomplished by applying commonly accepted FIPPs, such as transparency and choice, to energy data and privacy issues, and by encouraging the private sector involved in smart-grid and smart-home markets to develop voluntary, enforceable codes based on FIPPs, and perhaps by synchronizing energy-use privacy policy with the national policy that is emerging about commercial data, privacy and innovation in the Internet economy.<sup>3</sup>

### *Right Privacy Framework Should Protect Consumers Consistently Across Platforms*

A new privacy framework based on FIPPs should protect consumer data and its intended use regardless of the type of data at issue: energy, phone numbers dialed, reading lists, and more. Such a framework should be applied broadly and evenly regardless of the technology used to collect the data, the entity that is doing the collecting, or the business model underlying the data collection, and it should be flexible as technologies advance and change. Failure to consistently and evenly apply a policy framework to all entities and practices will result in inconsistent and inadequate data protection. Inconsistent application of privacy protections will undermine the entire system by causing consumer confusion and competitive disadvantage for some players. Consider the customer confusion and unintended consequences that likely will result if different privacy policies were to be applied or

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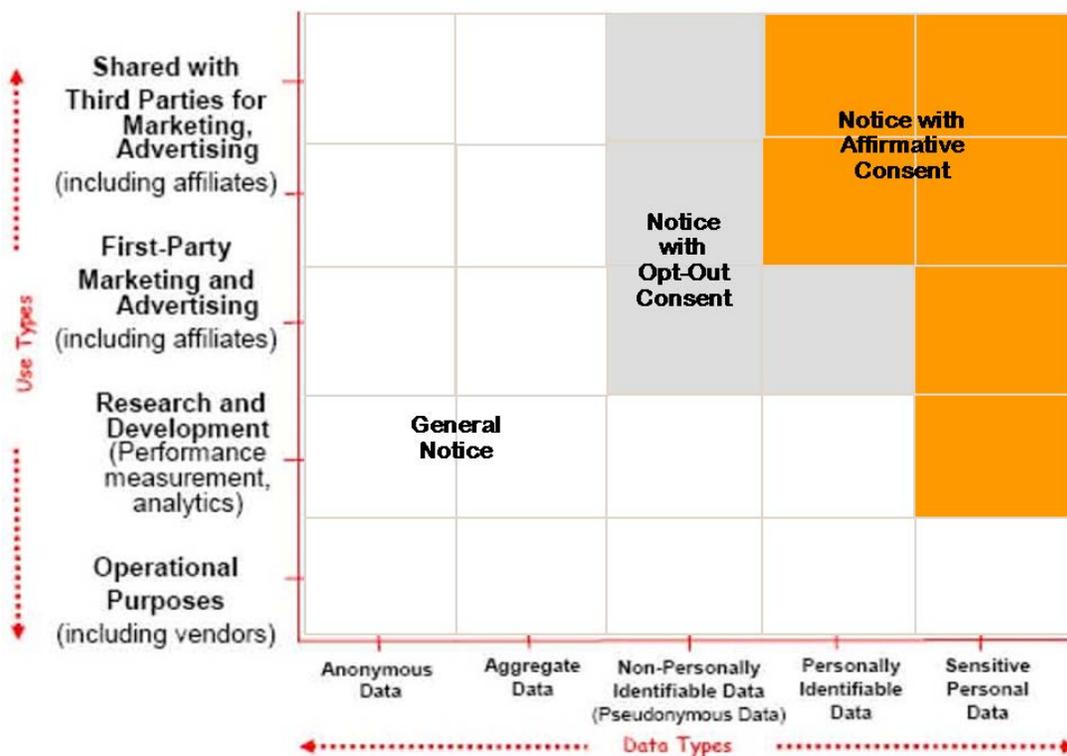
<sup>3</sup> Discussion about commercial data privacy and innovation in the Internet economy is ongoing at both the U.S. Federal Trade Commission and the U.S. Department of Commerce, each of which issued, respectively, a [white paper](#) and a [green paper](#) on privacy in December 2010, and also in legislative proposals like the *Commercial Privacy Bill of Rights Act of 2011* introduced by Sens. Kerry and McCain on April 12, 2011

practiced depending on whether whole-house energy-use data originated from a smart meter rather than from a TED® device. Similarly, state-by-state differences could cause system integration problems, increased data collection/customization costs, and customer communications challenges for utilities and other solutions and apps providers that deliver the same service in multiple states.

Consumers deserve clear and easily accessible notice of the information about them that a company is collecting, using and sharing with others. Privacy notices and protections, however, should be proportionate to the sensitivity of the data being collected and the purpose for which it will be used. A one-size-fits-all regime should be avoided. Consumers have become accustomed to the fact that customer notice and choice generally varies according to the type, function and use of the information being collected. Privacy policy that is expanded to include energy-use data should build on these established customer expectations.

Notice of a general privacy policy is appropriate for data that is gathered and used for operational and transactional purposes, such as delivering electricity service or rendering a bill, for example. Alternatively, meaningful, affirmative consent is expected for sensitive, personal information that will be tracked, such as monitoring a person’s vital signs or tracking when a home is occupied or empty. See the “Notice and Choice as a Function of Information Type and Use” chart.

### Notice and Choice as a Function of Information Type and Use



### Fair Information Practice Principles and Building Consumer Trust

The U.S. Federal Trade Commission, the leading federal agency focusing on consumer privacy, explains that studies of the manner in which entities collect and use personal information –i.e., their “information practices” – and the safeguards required to assure those practices are fair and provide adequate privacy protection reveal five core principles of privacy protection: (1) Notice/Awareness; (2) Choice/Consent; (3) Access/Participation; (4) Integrity/Security; and (5) Enforcement/Redress.<sup>4</sup> Together, these comprise FIPPs, which have come to represent a set of voluntary, enforceable codes that both companies and government agencies have adopted in how they transact and communicate with customers.

“Notice” and “Choice” are fundamental fair-information principles. The Gridwise Alliance believes privacy policy should focus generally on ensuring transparency, customer control and informed consent rather than on mandating the mechanics and exact terms of specific privacy notices. Commercial entities and even government agencies that should provide notice and choice need the ability to evolve their practices and learn how best to communicate in the fast-evolving world of online services and applications.

Today, consumers typically do not take the time to read dense, legalistic, hard-to-understand privacy policies. Thus, a best practice might be to provide customers with short, plain notices of the policies of any company handling household energy data, including utilities, that not only explain how the data will be used but also the benefit to the consumer of that use. Consumers who understand that use of their data by a commercial solutions provider is a feature that benefits them will understand why the data is being collected and therefore will have more confidence in the company collecting the data.

### Energy-Use Data, Privacy and Innovation – Need for a National Framework

Many of the nation’s largest technology and communications companies are expected to move into the energy services arena in the near future. In an efficient marketplace these firms will be able to advertise nationally and offer similar solutions and customer experiences no matter where someone lives. A privacy framework that will best encourage the emergence of such a national market will be at least consistent from one state to the next, and optimally will be one that is national in scope.

The national discussion now underway about commercial data privacy and innovation in the Internet economy presents a pathway toward a national policy for privacy and energy data.<sup>5</sup> The challenges and opportunities posed for privacy and innovation by the generation of granular energy-use data can and should be addressed in the context of the broader discussion about privacy and the Internet economy.

Companies engaged in the Internet economy have started to move beyond simple privacy policies to seek new ways to engage users about the ways their data might be used, because the purpose for which data is used can shift and change as new information-based innovations are developed. Such an

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<sup>4</sup>U.S. FTC, Fair Information Practice Principles, [www.ftc.gov/reports/privacy3/fairinfo.shtm](http://www.ftc.gov/reports/privacy3/fairinfo.shtm)

<sup>5</sup>FIPPs are central element of this national policy discussion, which also has important international trade implications given the differences between privacy regulations in different countries and regions around the world.

expanded engagement is directly relevant to the possibility for innovation in the energy services arena. Companies have created privacy dashboards and profile viewers that give users better control over how their information is collected and shared through websites or mobile applications or to help visualize data use.<sup>6</sup> These are ideas that readily translate into the energy services arena. New ways to engage and notify include the manner in which some industry groups have adopted versions of symbols that can be used to inform users about data use, concepts that are similar to how the Energy Star symbol functions.<sup>7</sup>

Imagine a mash-up of home-energy consumption data with Global Positioning Satellite location data and weather information in a cloud-based mobile application that could alert a person away from home about some action they should take – such as “remotely close windows that were left open.” Now imagine the challenge confronted in effectively applying the FIP principles of notice and choice for such an application. One can understand why flexibility is needed and why the issue of privacy and energy-use data needs to be addressed in the context of the national discussion about commercial data, privacy and innovation in the Internet economy.

By adopting a policy framework based on Fair Information Practice Principles and flexible enough to encourage continued privacy innovation, policymakers will be supporting measures that are likely to be more successful at helping users understand how their information is used by entities that handle their energy-use data. Perhaps the quickest and most direct way to implement such a policy is to encourage the private sector to develop voluntary, enforceable codes that implement the best practices contained in the catalogue of Fair Information Practice Principles. In contrast, a rigid or prescriptive approach is likely to result in a situation where the only privacy protection offered will be the provision of dense, legalistic notices that do little to successfully capture the interest of users and thus fail to result in genuinely informed consent to the use of a customer’s data.

## **Conclusion**

Gridwise Alliance commends state regulators for their efforts to ensure that care for privacy concerns is “baked in” to the smart grid in order to allow consumers to make meaningful choices about how their data is used and to otherwise respect consumers’ privacy interests. The Alliance points out, however, that it is in the consumer marketplace for smart-home services where questions of privacy and energy-use data have real meaning – not in the smart operations of the electric grid itself – and that state regulators have jurisdiction over only a small, albeit important, component of the smart-home marketplace – namely, utility smart meters.

The Alliance believes state and federal policy makers share its interest in fostering the emergence of a robust market for home-energy services, because engaging consumers in new ways in their energy use is critical to realizing the benefits that are expected to result from utility smart-grid investments. Given their jurisdiction over smart meters, Gridwise Alliance urges policy makers to implement policies that

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<sup>6</sup> See Comments of the Future of Privacy Forum, Report on Information Privacy and Innovation in the Internet Economy at 17-20, Department of Commerce, Docket No. 100402174-0175-01 (filed June 14, 2010), available at <http://futureofprivacy.org/wp-content/uploads/2010/06/future-of-privacy-forum-response-to-doc-noi-6-14.pdf>

<sup>7</sup> See: e.g., id, at 10-13

ensure consumers, or third parties empowered to act as their agents, can gain access to the home-level energy data that is generated by these devices.

With regard to caring for privacy concerns in a way that will foster the emergence of a robust market for energy management services, the Alliance urges a national approach to privacy and energy-use data. Such an approach will build on the fact that – in the context of addressing privacy concerns in a world of online information –energy-usage information is not inherently different from other kinds of information that move around in cyberspace, like a Netflix viewing list. All provide potential insight into the activities and interests of the people with whom the information is associated. Thus, a national approach to privacy and energy use will build on the ongoing national discussion of a policy framework for privacy and innovation in today’s Internet economy.

Gridwise Alliance recommends that privacy concerns for energy-use data be addressed by the application of FIPPs and by encouraging utilities, service providers and other interested stakeholders to develop voluntary, enforceable codes to which all will subscribe and abide, based on FIPP principles like transparency and choice.

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