



The GridWise Alliance, Inc.
Guiding Policy Principles – February 2017

The GridWise Alliance (GridWise) represents the broad and diverse group of stakeholders that design, build, and operate the electric grid. Since 2003, GridWise and its members have been at the forefront of educating federal and state legislators and regulators on the critical need to modernize our nation’s electricity system to ensure continued economic growth and competitiveness and achieve system reliability, resilience, security, efficiency, sustainability, and affordability.

Over the past several years, the electricity industry has experienced fundamental changes on a scale not witnessed since the creation of the electric system more than 100 years ago. Our nation’s grid must continue to evolve to respond to these changes to meet society’s needs, changing expectations, and preferences. Over the next 15 years and beyond, this evolution will have significant implications for reliability, operations, security, resilience, consumer choice, and more. To successfully develop effective and lasting solutions to the challenging issues related to the modernization of the grid, all stakeholders should aim to understand each other’s points of view and collaborate on common guiding principles to create a prudent path forward.

These principles use the term “modernize” or “modernizing” in the context of process and the term “future” (as in “future electric grid”) as a conceptual state of the grid that does not yet exist.¹

Overarching Principles Regarding Grid Modernization

1. A holistic approach, i.e., using the electric grid as the focal point or lens, to modernizing the electric grid is essential to align policies, appropriate and transparent investment incentives, regulations, industry standards, and technological innovation across the value chain from electricity generation to delivery and end-uses, while preserving and improving electric system safety, reliability, resilience, security, efficiency, and affordability.
2. The future electric grid should remain flexible and should continue to support key capabilities, such as enabling customer choice; integrating clean utility-scale and distributed energy resources; enhancing decision-making by customers, grid owners and operators, and other key stakeholders; and improving overall electric system safety, reliability, security, resilience, efficiency, sustainability, and affordability.

¹ The following principles represent a careful and thoughtful synthesis of GridWise’s and its members’ viewpoints. They signify a general consensus of a diversity of viewpoints, but do not necessarily reflect each company’s particular viewpoint. We recognize that the unique context in which individual entities conduct business provides nuances to these principles that we do not always reflect.

3. Innovation is changing and will continue to change energy, operational, and information technologies at a rapid pace. The marketplace will determine those technologies best suited to perform the needed functions. This principle, and all of the principles herein, are intended to reflect a “technology neutral” approach.
4. Changes to the electric system need to be supported by business model, rate structure, and regulatory reforms that enable utilities/electric service providers to own assets and provide services and also enable third-party providers to offer services and to compete to ensure the safest, most reliable, resilient, and secure grid and to meet consumer demands.
5. As the grid is modernized, it should be optimized to maintain and enhance system reliability, resilience, security, and more, and should meet changing consumer demands. Different utilities and jurisdictions can achieve such ends by employing varying business models and regulatory strategies.
6. "Leveling" the playing field for all market participants by establishing protocols and advancing regulatory reforms that allow utilities/electric service providers to provide services and participate in the marketplace along with third-party providers is important. Such reforms would allow utilities to source "value" objectively from non-utility as well as utility/affiliated entities and be rewarded for doing so.
7. A modernized electric grid should create or enhance value by increasing its functionality, expanding and maximizing the benefits realized, and making this critical platform available to customers, service providers, and market participants to pursue their individual and collective goals.
8. Workforce development activities are necessary to meet the needs of a rapidly-changing electric grid. It is important to support and promote public, private, and partnership efforts pertaining to academic institutional, apprenticeship, remote, and other educational and workforce leadership efforts and programs to train and develop a skilled existing and future workforce that is sufficiently flexible to address the needs of the changing electric system and respond to extreme events.

Promoting Innovation and Transformation through Policies, Business and Regulatory Model Changes, and Research & Development

Coordinated Policies and Programs and Consumer Empowerment

1. Federal and state policies and programs should promote innovative and flexible solutions to meet changing customer needs and maintain and enhance system reliability, security, resilience, and efficiency.
2. Advances in new technologies are critical to the long-term success of the electric grid. Coordination among state and federal policies and programs will facilitate such technological advances. The U.S. Department of Energy (DOE) could assist in this regard, where appropriate, while investing in industry-led research and development (R&D) that leverages innovation.

3. Local, state, and federal governments should not attempt to pick technology winners and losers. Policies should encourage entities to test new technologies to make sure they are “game ready” and meet performance metrics. Demonstrations and pilots also are needed to test, measure, and verify the benefits and costs of emerging technologies as well as the associated business models, regulatory models, rate design structures, and more.

Changing Business Models and Rate Structures – Utility and Customer Perspectives

1. The future grid should efficiently deliver affordable, reliable, and safe electricity to homes, businesses, and communities. To the extent states choose to change their regulatory structures or encourage new business models, they should do so carefully and based on uniform, consistent, and verifiable methods for determining the benefits to preserve the value of the electric grid to society as a whole.
2. The value of electricity should be reflected in electricity rates in an equitable manner for consumers, utilities, and third-party providers. The ability to use smart technologies (e.g., sensors, etc.) will help consumers, electricity providers, and all parties better understand the true value of the future grid and ways in which this value can be reflected in rates. Different jurisdictions will use different interpretations.
3. Distributed Energy Resources (DERs) should be available to consumers, utilities, and third-party providers to achieve the highest value to all customers over the life cycle of the resources.
4. Private generation owners should be fairly compensated for excess electricity, while ensuring they still pay for the services, like reliability and power quality, provided by the grid. Regulators should consider new rate designs, including access fees, fixed charges, and demand charges, to relate the price paid by electricity customers to the value that they receive.
5. For grid transformation to be successful, utilities must maintain a safe and secure risk profile that allows them to access capital for grid investments at a reasonable rate. While future incentives to invest in advanced technologies are appropriate, they should not change the utility’s fundamental risk structure. Any proposed business model changes or alternative regulatory structures should demonstrate that they would not increase the risk of investing in a utility and result in an increase in a utility’s cost of capital and the associated increased cost to customers. Business models also should be adapted so utilities who decide to invest in less capital-intensive, advanced technologies obtain a return on their investments (ROI) and/or receive a sustainable revenue stream(s) from these sources.

Research and Development

Research and development (R&D) is an important component of the grid modernization progress, both in technological capability and in operational improvements. Utility investments in R&D can leverage scarce state and federal resources and public-private partnerships also will help advance these objectives. Partnerships among utilities, vendors, universities, national labs and other stakeholders are critical to ensuring the prudent sharing of R&D-related data.

Physical and Cyber Security

Grid modernization infrastructure and related policy and regulatory efforts must consider and incorporate cyber and physical security.

GWA underscores that voluntary, public-private partnerships as well as additional industry efforts to address cyber and physical security concerns should continue, as should ongoing federal efforts to mitigate cyber and physical threat exposure.

In addition, the partnership efforts on cybersecurity between the public and private sectors are vital and should continue. Unity of effort and unity of message across relevant industry sectors is vital in preventing and addressing physical and cyber security issues.

Cybersecurity protocols should be standardized. Cybersecurity policies should:

- Facilitate secure, relevant information-sharing between the government and the private sector, including technology providers who supply critical systems, and should facilitate coordination and cooperation;
- Ensure that information that private sector entities share with the government or that is appropriately collected by the government is used for the sole and express purpose(s) for which it was shared or collected;
- Enhance liability protections including privacy and civil liberty protections;
- Be flexible and should not duplicate existing applicable standards;
- Facilitate, not inhibit, innovation and should not harm electric system reliability; and,
- Be partnered with recovery mechanisms that ensure that the costs associated with meeting ever-changing cyber threats are promptly and equitably addressed.

Data and Data Privacy

1. Customer data privacy must be protected as grid modernization programs are implemented and new services based on increasingly-available data are offered by utilities and market participants.
2. Recognizing potential associated challenges, including but not necessarily limited to, developing systems and supplying data to groups wanting aggregated data, such aggregated electricity usage and/or DER data should be made available to market participants for analysis and for developing new products and services for customers and should be shared with the respective utilities. The costs of developing and providing the aggregated data and protecting associated customer privacy should be allocated consistent with the value derived. Owners and providers of the aggregated data should not be held liable for inappropriate or unauthorized use or unintended consequences of making the data available.
3. Again, recognizing potential associated challenges, grid asset and operational data should be shared with market participants in a manner that is consistent with protecting grid safety, security, and reliability, as well as with protecting customer privacy. The costs of developing and providing grid data at the direction of regulatory agencies should be allocated consistent with the values derived and risks assumed. Owners and providers of the data should not be held liable for inappropriate or unauthorized uses or unintended consequences of making the data available.