Solution brief

Simplify your path to a smart energy grid.

Verizon Grid Wide: Intelligent Energy keeps you smart-grid ready.

It's no secret. Whether it's from growing demand or extreme weather due to climate change, your aging utility infrastructure is vulnerable. You need to modernize, but building an intelligent energy grid is an enormous and complex undertaking. Are you ready? You don't want the disruptions that could come from such a major overhaul. It doesn't help that your already lean staff doesn't have the capacity or expertise needed to support an intelligent energy grid.

That might have been the story yesterday, but not today. Verizon Grid Wide: Intelligent Energy simplifies the path to an intelligent electric grid. Intelligent Energy helps you modernize your grid at your own pace. It makes it easy to use Internet of Things (IoT) technology and services to connect your operations with near real-time data. As a result, you can more easily and remotely monitor, manage and control your energy systems. And it helps put you in a better position to successfully implement demand response.

As Intelligent Energy helps you modernize your grid, it also helps you get better at doing all of the following:

- · Improve efficiency and cost controls
- Balance grid loads while enhancing customer experience and quality of service
- Reduce service downtime with near real-time demand monitoring
- Promote conservation efforts with more efficient operations and resource distribution

Verizon Grid Wide: Intelligent Energy relieves you of the management and investment required to modernize and maintain your grid.

Simplify grid modernization with control.

To give you a scalable smart grid modernization solution that is easy to put in play, we've combined a best-in-class application suite with our world-class network to create Intelligent Energy, offered as a platform as a service. Modernizing no longer means having to swap out all your outdated elements at once. You can target areas of biggest concern first and address the rest at your own pace.

Since we deliver Intelligent Energy through the Verizon network, you don't need a large upfront capital investment in network equipment. And our service-based model allows for flexible pricing options, enabling you to pay as you go or be billed in advance. All of this makes it easy to replace outdated meters with smart meters gradually as part of a long-term swap-out plan. Or you can choose to ramp up as fast as your budget allows.

Our Grid Wide IoT platform gives you dashboards, integrated reporting, data analytics, and event alerts and notifications, all in near real time. These increased insights into your systems can help you:

- · Create smarter, more efficient operations
- · Improve asset management
- · Reduce downtime with predictive maintenance
- · Increase conservation efforts
- · Simplify deployment

Intelligent Energy is made up of multiple technologies and service options that work together to simplify and enhance your grid transformation. And if that weren't enough, our solution team can save you the complexities of building your own solution as we help you plan, implement and scale according to your business needs. And it's powered by our Verizon 4G LTE wireless network, Private IP wide area network and proven IoT platform. Since we manage the solution for you, you don't have to hire or train an information or operational technology (IT/OT) team. Communications management is no longer a worry either. We take care of all of that for you.



Roll out your intelligent grid and programs at your own pace.

Gain greater grid insights.

Intelligent Energy gives you a smart grid environment with the visibility and control you want. It constantly collects and sends you actionable grid data to give you insight into what's happening across your entire grid. Our analytics dashboards make the data easy to understand and act on. Since the data is all in near real time, you can make faster and better business decisions and be more proactive. It helps you manage usage anomalies, detect outages, identify tampering and reduce energy waste. You can also better plan for future growth, as well as develop energy management programs that can help lower your costs and improve your service.

The insights, reporting and alerts that Intelligent Energy provides can make you aware of issues sooner. Intelligent Energy also gives you the ability to accurately visualize and pinpoint issues. That makes it easier to quickly dispatch crews to resolve potential problems before they become critical. As a result, you can increase your ability to keep your services up and running, as well as better conserve your energy resources. Also, when certain events or conditions occur, it can automatically send SMS and email alerts to affected customers. All of these combine to help you better inform and serve your customers.

Better manage your grid systems, operations and workforce.

The platform brings together the following service offerings:

- Smart metering
- Distribution monitoring and control
- Outage management
- · Distributed energy resources

Get visibility and intelligent insight across your entire grid.

Simplify smart metering and gain more control.

Connecting smart meter networks in the past relied on private communication technology networks that were expensive and inefficient. You had to deal with fragmented solutions made up of proprietary products and services. That's not how we do it with Intelligent Energy. Our offering simplifies smart metering by integrating all the essential hardware and software with 4G LTE components into a single turnkey solution.

Our Intelligent Energy Smart Metering offering gives you a secure communications network and advanced metering platform that puts you in command and in control. You get a comprehensive suite of smart metering capabilities that include remote meter provisioning, configuration, monitoring, control and management. To help your meter reading efforts and give you more control, our smart metering gives you easy access to billing and operational data. It helps you better manage service connects and disconnects. You can also perform over-the-air meter programming.

Intelligent Energy Smart Metering allows you to accurately pinpoint outages. This helps you speed up service restoration times and improve overall customer satisfaction.

Enjoy better visibility across your grid.

To help you gain a clearer view into your grid operations, Intelligent Energy also provides a Distribution Monitoring and Control service. This gives you near real-time voltage information along with other key quality-of-supply data that helps you quickly respond to changing loads, generation issues and equipment failures. It gives you access to invaluable information that you can tie into your automated control systems, such as switches, cap banks and voltage regulators. Its monitoring capabilities also help your asset management efforts.

- · Improve service reliability
- · Move up to proactive maintenance instead of reactive repair
- Quickly identify issues and decrease outage time and customer impact with fault location, isolation and service restoration (FLISR)
- Improve operations and extend life span of equipment and assets
- Upgrade assets based on performance rather than time



Why Verizon

Verizon Intelligent Energy takes the complexity and cost out of creating a smart energy grid. It gives you a fully managed solution that brings together key smart metering technologies, best-in-class Verizon network services and IoT technology into a single, united platform. And it's backed by the nation's largest and most reliable 4G LTE network to keep you securely connected to your smart grid data and devices. Since we manage the intelligent energy network from end to end, you can stay focused on running your business and improving customer satisfaction.

When you use Intelligent Energy to modernize your grid, you're ready.

To learn more about how Intelligent Energy from Verizon can simplify your grid modernization efforts, contact your Verizon Wireless business specialist or visit verizonenterprise.com/gridwide

