



# How Digitized Rates Help Utilities **Decarbonize, Eliminate Silos and Improve Customer Centricity**

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# 10%

Customers' average bill savings during the first summer after PSEG Long Island introduced TOU rates, which helped customers shift consumption away from times of peak demand.

For several years, PSEG Long Island has worked hard to reimagine the New York utility's relationship with its customers. Customer centricity is core to the utility's strategy to navigate tectonic industry changes, including the rapid adoption of electric vehicles (EVs), ambitious decarbonization mandates, and a heightened emphasis on grid resilience and reliability.

"How do we go beyond just doing the normal, day-to-day work that the utility has to do, like delivering electricity and sending bills out?" said Brian Kurtz, who leads the utility's customer-satisfaction and Utility 2.0 efforts. "We also need ways to meet our own future state of modernizing the utility and achieving New York state's Climate Leadership and Community Protection Act ([CLCPA](#)) goals."

Efforts to modernize the utility and make it more customer-centric began in earnest in 2018, when PSEG Long Island began deploying advanced metering infrastructure (AMI). With that technology foundation in place, PSEG Long Island moved quickly to modernize its rates. Before embarking on its Utility 2.0 initiative, most PSEG Long Island customers had practically

no choice in their rate plans — and subsequently no incentive to adjust their consumption to benefit grid reliability or deliver bill savings.

"In the last couple of years, energy pricing and rising bills have certainly been an obstacle toward customer satisfaction. New capabilities with smart meters enable us to create new rates and modernize those rates to help customers control their bills and possibly lower their energy costs," said Michelle Somers, Marketing Manager for PSEG Long Island.

One result of the Utility 2.0 and rate-modernization initiatives was a voluntary time-of-use (TOU) program that launched in December 2021. At many levels, the TOU program has been a big success. The initial goal was to sign up 6,500 customers in the first year; but by the end of 2022, 14,000 had enrolled. The TOU rate options PSEG Long Island offered an average 10% bill savings during the first summer after its introduction by shifting consumption away from times of peak demand. The utility also received Chartwell's 2023 Best Practices Billing & Payment Gold Award.

# Getting rates right matters more than ever

PSEG Long Island is by no means the only utility to grasp the importance of leveraging rates to achieve both important utility objectives and to deliver value to customers. According to Scott Engstrom, Chief Customer Officer at GridX, a company that partnered with PSEG Long Island and provides a platform for the effective development and implementation of utility rates, the rising emphasis on rates as more than just a means of cost recovery is a necessary response to an increasingly distributed and decarbonized power system.

“You can’t control the sun or the wind. When those resources are behind the meter, the grid operators don’t have control,” Engstrom said. “The utilities and grid operators need demand flexibility in a way that they’ve never needed it before to achieve their electrification and decarbonization and reliability goals. One of the key tools to create that flexibility is through rates and programs and price incentives.”





“It’s necessary now for utilities to design ever more complex rates while making information about these rates and how they impact customers more **accessible and understandable.**”

**TIM BALLARD** Senior Director of Product Operations at GridX

For example, TOU rates provide a way to incentivize EV owners to charge their batteries when demand is low, which reduces the need to use peaker power plants to produce additional electricity, reducing utility operating costs and saving the driver money. Done well, rates provide a simple and elegant tool for utilities to deliver financial benefits to their customers while enhancing their ability to operate a clean, cost-efficient and reliable grid.

Well-designed, marketed and implemented rates also can engage customers in ways that are increasingly important to utilities. “Time-of-use rates and customer-centric rates have been around for many years,” said Tim Ballard, Senior Director of Product Operations at GridX, who has extensive experience in rate design and rate analytics.

What’s different now is the imperative for improved customer experiences through the digitization of everything, which is occurring at the same time customer engagement technology is improving and the need to deliver economical decarbonization increases. “It’s necessary now for utilities to design ever more complex rates while making information about these rates and how they impact customers more accessible and understandable,” Ballard said.

## Digitized rates provide a single source of truth

PSEG Long Island leveraged GridX's platform and capabilities in its rate-modernization initiative, which has involved unprecedented collaboration across the utility — Brian Kurtz has identified at least 17 departments that have been involved.

Having a single source of truth on a shared platform all departments collaborate on has been instrumental to PSEG Long Island's rate-modernization success. Unfortunately, many utilities remain siloed, in terms of the data they collect, analyze and share and because individual departments have lacked any reason to work together in the past. A lack of analytical tools and capabilities has also stunted the development of rates that benefit customers, the utility and the grid.

For example, consider the implications of rolling out TOU rates (whether opt-in or opt-out) without first analyzing how the rates will impact revenues. "When you are developing TOU rates, it is imperative to do meaningful analysis of exactly how customers will respond to those rates, or else you risk losing significant revenue," Ballard said. "Many utilities continue to find themselves in situations where they haven't appropriately accounted for customer migration in their revenue recovery when rolling out a residential TOU rate, putting millions at risk and disincentivizing marketing of these rates, which puts their effectiveness and grid benefits at risk."



One reason these disconnects in utilities exist is that there is no reliable single source of truth about rates from a system perspective that is shared across the organization. When that is missing, it is difficult to pair standardized rate data with information from customer information systems (CIS), meter data management systems, AMI data and other utility systems. The ability to utilize big data analytics also depends on standardized rate data.

When there is an attempt at collaboration, tariff calculation logic is typically shared across and outside a utility via static documents or spreadsheets. These formats may be easy to communicate broadly with, but the information then must be repurposed for different use cases. “You end up needing to create different tools for each application,” Engstrom said. “There’s not a single platform that everyone from rate designers through program owners and call centers and billing can use.”

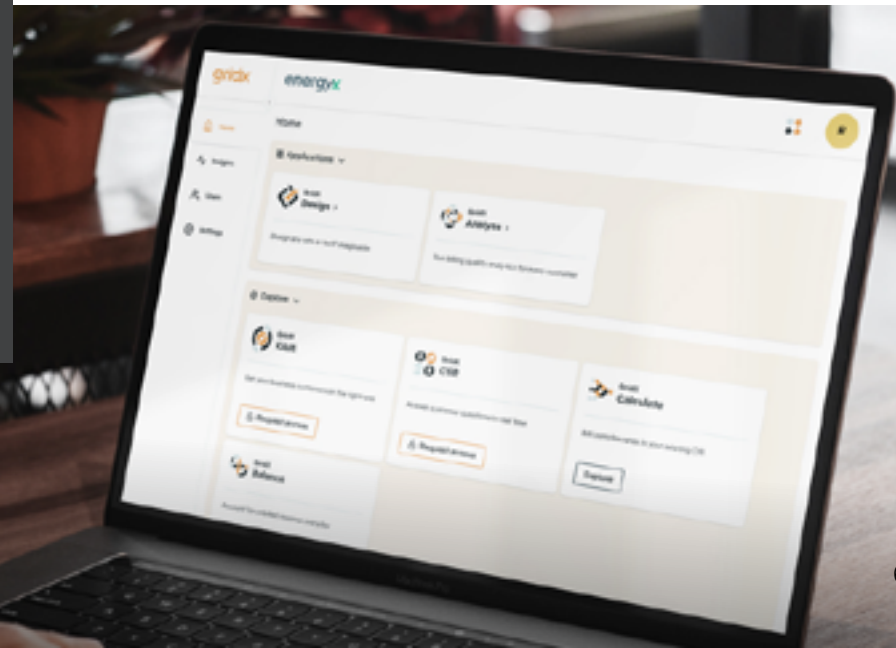
GridX provides utilities with that common platform and a shareable digitized rate that allows utilities to collectively design, test, analyze, market and bill complex rates. “The idea of digitizing the rate and using the Enterprise Rate Engine is that you digitize the rate once, and then make it available for many different use cases that can share the same source of truth,” Engstrom said. “You’re not reinventing the wheel every time and risking having different versions of the same rate.”

A shared platform with digitized rates can also catalyze essential collaboration. “Some utilities are good at collaboration, but others rarely see those working on rates or national accounts or marketing work together. Implementing a system that they share enables that,” Ballard said. “Those conversations are critically important to having a single message as a company. They often don’t happen without a forcing function because there’s nobody tying these groups together. In some sense, the platform and digitized rate become this central point of communication for all these groups that would otherwise not have any connection.”

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**SCOTT ENGSTROM**

Chief Customer Officer at GridX



# How a digitized rate is driving real-world benefits for a utility and its customers

The challenges PSEG Long Island overcame in developing its initial TOU rate are illustrative of the benefits a rate platform and digitized rate can deliver. For example, the utility has a nearly 50-year-old homegrown mainframe system. “You can imagine the limitations that places on our CIS system,” said Nayan Parikh, PSEG Long Island’s technology group product manager. “We knew that our current CIS system cannot support the interval data we are capturing through the AMI to tell customers what time they use energy, what time they should charge their EV and other consumption data. But the journey for replacing the CIS system is very, very expensive and time-consuming.”

It was also unnecessary. After considering other solutions and visiting GridX customers, PSEG Long Island selected GridX to augment and modernize its mainframe system. The utility has since leveraged many of the capabilities made possible with an Enterprise Rate Engine and digitized rate. “It is the core tool to offer customers TOU rates,” Parikh said. “It provides the core functionality, and we are also using their APIs for the rate-comparison tool, which is connected to our customer account portal where customers can check which rate is most beneficial for them and where they can save most of the money.”



“We want options that are simple to understand, easy to compare to each other, and that meet both the customers’ and the utility’s current and future needs. **Rate modernization and providing customers with choices is core to our Utility 2.0 work.**”

**BRIAN KURTZ**

Manager of Special Projects & U2.0 Project Management Office



Behind the scenes, the utility is also using GridX’s analytical tools to assess revenue effects of rates under development. The utility’s marketing is now more personalized because it has access to data that can show how adopting a new rate can lower the energy bill of a specific customer. “Since we have access to that data, we were able to incorporate it and personalize our outreach, putting that information in a positive light for voluntary time-of-use enrollment,” Somers said. “Working with our digital partner, Questline Digital, we not only dynamically populated estimated savings in our email communications, but we also created a seamless customer experience with a one-click enrollment functionality and behavior-driven automation to drive response.” The result has been a 150% increase in conversion rates.

The data and tools GridX provide also helps PSEG Long Island as it continues to develop new rates aimed at achieving its customer-centric Utility 2.0 vision. At the end of 2023, the utility rolled out two new rates. Based on the success of its voluntary TOU program, PSEG Long Island has decided to switch to an opt-out program in early 2024. “We want options that are simple to understand, easy to compare to each other, and that meet both the customers’ and the utility’s current and future needs,” Kurtz said. “Rate modernization and providing customers with choices is core to our Utility 2.0 work.”





GridX partners with utilities and energy suppliers to transform their businesses and accelerate the clean energy transition. The company's Enterprise Rate Engine helps these organizations develop new products and business models to achieve their clean energy goals; quickly operationalize new offerings in their billing and settlement processes; and better engage with their customers for broader program adoption. GridX's platform is used by leading utilities, retail energy suppliers and energy ecosystem OEMs to serve more than 25 million homes and businesses.

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