

**BEFORE THE ILLINOIS COMMERCE COMMISSION OF THE STATE OF
ILLINOIS**

Illinois Commerce Commission
On Its Own Motion

Notice of Inquiry Regarding the Regulatory
Treatment of Cloud-Based Solutions

NOI 16-01
(Filed February 10, 2016)

**OPOWER, INC. COMMENTS ON ILLINOIS COMMERCE COMMISSION'S
NOTICE OF INQUIRY REGARDING THE REGULATORY TREATMENT OF
CLOUD-BASED SOLUTIONS**

April 29, 2016

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I. Introduction

Opower, Inc. (“Opower”) respectfully offers the following Comments on the Illinois Commerce Commission’s Notice of Inquiry regarding the regulatory treatment of cloud-based solutions. These Comments are filed and served pursuant to 2 Ill. Adm. Code 1700 Subpart D.

Opower delivers behavioral energy efficiency, demand response (“DR”), and customer engagement services to over ninety-five electric and gas utilities across thirty-five states and eight countries, including Illinois. To date, these programs have saved over ten terawatt-hours of energy. This year, Opower will deliver personalized energy insights to more than fifty million residential customers through direct mail, email, websites, smart phones, and text messages. Opower’s cloud-based technology platform is analyzing 40% of all U.S. residential energy data, and 75% of its smart meter data.

II. Summary

Opower thanks the Illinois Commerce Commission and the NOI Manager for the opportunity to comment. Opower joined the “Joint Software Provider Parties” group in submitting comments on the Cost, Reliability, Cybersecurity, and Regulatory Barriers sections of this Notice of Inquiry. The comments below focus on Additional Benefits of Cloud Deployments. Opower will limit our comments to the questions that are most relevant to our business and areas of expertise.

III. Comments

Additional Benefits of Cloud Deployment:

1. Describe the types of cloud-based technologies are available for electric, gas, and water utilities.
2. In electric utilities:
 - i. Identify specific software services not currently deployed in Illinois available to engage customers in distributed generation, distributed storage, demand response, and energy efficiency programs. Are those tools available as on-premise and cloud solutions, or is only one option available?
 - ii. Identify specific services not currently deployed in Illinois that could provide customer engagement portals that improve customer engagement; increase customer satisfaction; and help meet regulatory mandates for verified energy savings and demand reduction.
3. In water and gas utilities:
 - i. Identify the types of software or services not currently deployed in Illinois that could improve customer engagement and increase customer satisfaction.
 - ii. Identify the types of software or services not currently deployed in Illinois that could detect leaks and inefficiencies, improve conservation, and lower operating costs.
4. Describe any additional feature benefits to a utility when adopting a cloud-based solution. For example, what are the benefits of cloud software that analyzes consumption patterns, identifies malfunctioning meters, reduces unbilled energy, or engages in predictive maintenance and load forecasting, among other things.

Cloud-based software can unlock a wide range of benefits, including reduced operations costs, improved reliability and resiliency, and more robust security infrastructure, among others. While Opower recognizes the multitude of benefits that cloud-based software can provide, these comments focus on and highlight the cloud-based technologies our company makes available to electric and gas utilities for demand-side management and customer care services.

Opower's industry-leading software helps utilities elevate the customer experience. Tailor-made for utilities and built to meet their evolving needs, Opower's customer engagement platform combines insightful analytics, applied behavioral science, and user-centric design to improve and increase customer engagement and drive towards higher customer satisfaction. Opower's software is cloud-based, and is continually upgraded in order to meet our utility customers' needs. We want to provide a brief overview of these products and highlight the technology that underpins them.

Demand-side Management

Utilities use Opower's industry-leading energy efficiency solution to get more out of their entire demand-side management portfolios. Powerful technology and behavioral design ensure customers get personalized energy advice that is helpful, multi-channel, and constantly evolving. Tools for program managers and customer service representatives offer the visibility and control to

deliver reliably on the metrics that matter — including sustained energy savings, greater program participation, and higher customer satisfaction.

Opower's Home Energy Reports have consistently delivered energy efficiency savings to utilities around the world since their first delivery in 2007. Opower's Behavioral Energy Efficiency solution utilizes Opower's robust platform to deliver personalized, cross-channel customer experiences that drive energy savings, increase marketing effectiveness, and lift customer satisfaction. Through a powerful combination of email, direct-mail, web, and call-center tools, our Behavioral Energy Efficiency solution delivers proactive, targeted messaging that drives energy savings and enhances each customer's experience.

Each Home Energy Report delivers a meaningful story to residential utility customers that encourages action. Example components of the Home Energy Report include:

- **Neighbor comparison:** Customers receive comparisons of their energy use to that of neighbors living in similar households shown in a three-bar graph and in other energy insights on the front page of the Home Energy Report. Normative comparison, the behavioral science principle behind the neighbor comparison, triggers customers to act more than other typical motivators, such as financial incentives.
- **Quick tips and energy-efficient investment opportunities:** Targeted tips that require only minor behavior changes encourage immediate energy-saving behavior. Customers may also see a tip educating them on larger investments, like an energy efficient appliance. Recommendations

are tailored to customer demographics and the household's previous actions, such as taking advantage of utility energy-efficiency programs.

- **Progress tracking:** Personal comparisons and energy-efficiency progress tracking show customers how they are using energy over time.

Utilities use Opower's Home Energy Reports to engage more than 15 million homes and deliver electricity savings of 1.5 to 2.5% on average. Overall, these reports have saved more than ten terawatt-hours of energy. Opower's results have been independently verified more than 70 times. In addition, customers receiving Home Energy Reports are 11% more likely to participate in another energy efficiency program. When utilities promote specific programs in Home Energy Reports, the participation lift climbs as high as 60%.

Opower's Behavioral Demand Response software transforms utilities' approach to peak demand management, driving capacity savings at a significantly lower cost than many other demand response programs. By converting smart grid data into real-time personalized energy insights, Behavioral Demand Response produces reliable territory-wide peak load reduction; increases customer satisfaction; and amplifies energy efficiency, dynamic pricing, and direct load control programs.

Opower helps utilities notify customers when peak days are approaching and encourage them to shift their usage. Opower provides utility customers with:

- **Pre-season awareness campaign:** Educational materials sent to customers to build awareness about peak events, educate customers on reasons and ways to save and set expectations for program participation
- **Pre-event, personalized digital communication** — An e-mail, interactive voice response (IVR) call, or both before each peak event notifies customers about the event, provides actionable recommendations for reducing usage, and provides context on performance during previous events
- **Post-event, personalized digital communication** — An e-mail or IVR call following each event provides customers with feedback on their performance and comparisons to the performance of similar homes. This not only makes customers happier with their utility and peak experience; it also motivates customers to reduce peak even more during future events through behavioral science techniques (such as showing customers how their peak day behavior compared to similar homes).

Today, utilities are aggregating more data than ever. Opower's platform has been optimized to take in data from all utility operational systems and assimilate it with other data sources (like weather, demographic and parcel information) to uncover unique customer characteristics. Opower provides utility program managers with direct access to a customizable program performance dashboard, data extracts, and results data. These tools take business intelligence one step further by allowing utility personnel to explore the complete set of customer

usage, billing, and third-party data to identify new customer trends, create new customer segments, and to design custom dashboards for ongoing monitoring.

Customer Care

Research shows that customers are most receptive to information from their utilities at certain moments during the customer lifecycle, like seasonal changes or starting a new contract. Opower's customer care products were designed around utilities' need to reach their customers at the moments that matter most, via multiple communication channels.

Opower's digital engagement solution helps utilities elevate their online experience. Built by a team of experts in behavioral design, its web and outbound channels drive customers toward personalized, insight-rich web tools that strengthen the customer relationship and increase self-service. The solution is flexible, cost-effective, and easy to implement — giving utilities confidence they are investing in software that creates value now and over the long-term.

Opower has invested more than \$200M over the past four years to create a next-generation web framework specifically tailored to utilities' needs - the Opower NextWeb Platform. NextWeb offers a flexible and extensible web solution to give customers the seamless digital experience they expect, while providing utilities with the ability to deliver personalized insights and information on their own terms. Opower enables utilities to surface simple highly personalized insights where they are most likely to capture customers' attention.

For instance, we provide application program interfaces (APIs), such as a forecast for the customer's bill or a bill comparison widget next to the amount owed, which give customers a quick reference.

Opower is increasingly collaborating with utilities to develop a new billing experience that delivers improved customer satisfaction and lower service costs. Proactive alerts, intuitive self-service tools, and integrated call center software embed helpful, personalized insights across the entire billing process.

In other industries such as telecommunications and banking, customers are accustomed to receiving alerts when there is unusual activity, including high usage. For utilities with Opower's software, our analytics engine and outbound communications platform can notify customers when they are trending toward a high bill and provide guidance on how they can adjust their energy use before the end of the billing period. These high bill alerts are designed for utility customers with and without smart meters and do not require any additional customer input.

As dynamic pricing has been introduced, Opower is working with utilities to provide customers with tools to enable them to explore the potential pricing benefits of new rates and see how making small adjustments to their energy usage patterns may affect their bills on certain plans. These tools leverage historical interval usage data so that customers can review their existing rate and learn about new rates for which they are eligible.

Opower's software can also support customer service representatives with a single, easy-to-use software interface that allows them to quickly respond to

customer inquiries, keep call times down, enable first-call resolution, and enhance customer satisfaction. These tools improve the customer experience and help reduce average handle time by providing the customer service representative with customer-specific energy usage and billing insights. Specific features include:

- A single easy-to-use page that pulls from multiple utility and third-party data sources to generate personalized insights to help customer service representatives diagnose high bill situations
- Access to a set of personalized energy saving tips and program promotions to help customers manage their energy use and prevent future high bills
- Ability for customer service representatives to collect email addresses and enroll customers in proactive communications that will likely reduce future call volumes.
- Consistent messaging that is synchronized across channels for a seamless customer experience

Technology

Utilities use Opower's technology platform to deliver great customer experiences at scale. The platform supports a full suite of customer-facing applications, integrates seamlessly and securely with legacy systems, and drives

business outcomes today. The most significant components of our software platform include:

- **Analytics engine.** Combines data from utility and third party systems into customer energy insights.
- **Personalization engine.** Automates the pairing of customer insights with targeted actions customers can take and handles the delivery of those messages at key moments for each customer.
- **Delivery engine.** Manages outbound communications, which provides consistent multi-channel (e.g. paper, email, web, IVR), at scale. This system also collects customer interaction data and feeds it back into the platform to dynamically change each customer's experience over time.

The Opower platform leverages the speed, efficiency, and extensibility of the cloud, and gives utilities access to constant innovation at every customer touchpoint. Opower's platform has analyzed more than 500 billion meter reads, and is adding over 100 billion new ones every year. In terms of security and data privacy, Opower's platform also has SOC II certification from Deloitte & Touche.

Opower appreciates the opportunity to comment in this Notice of Inquiry.

Dated: April 29, 2016

Respectfully Submitted,

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