



Open Data Access Framework

Purpose

The purpose of the Open Access Data Framework (“the Framework”) is to clarify the types of usage data all Illinois retail electricity customers and authorized third-parties have access to and the means by which such data should be provided. It is intended to provide standard service guidelines to Illinois electric utilities which have opted to participate in the Energy Infrastructure Modernization Act (“EIMA”) by committing to smart grid investments, including the deployment of Advanced Metering Infrastructure (“AMI”). Specifically, the Framework details the minimum conditions by which each participating utility is to provide such access beginning two years after the Illinois Commerce Commission (“ICC” or “Commission”) issues its Final Order in this docket (ICC Docket No. 14-0507).

By outlining definitive principles and standards, the Framework seeks to provide the Commission, utilities, and their customers with clear expectations and procedures. Doing so provides protections for utilities and consumers while also encouraging innovative utilization of customer electricity usage data enabled by smart grid and smart meter deployment. Such benefits include new dynamic pricing options, expanded energy efficiency programs, and new in-home energy management technologies that will, taken together and with the help of utilities and authorized third parties, provide Illinois customers a chance to directly benefit from smart-grid investments by creating a more precise window into how they use electricity.

Scope

This Framework applies to participating electric utilities and their retail customers. This Framework is not intended to apply to alternative retail electric suppliers (“ARES”), for whom separate data transmission policies and processes exist and are updated from time to time. In particular this Framework outlines the expected standard level of service applicable to all retail electricity customers in Illinois who are taking service from participating utilities.

Organizing Principles

The customer is the principal owner of that customer’s usage data and as such, can and should receive usage data in as close to real-time as practicable. The customer has the ability to authorize the utility to share his/her usage data with third parties, and the customer can revoke that third party access at the customer’s discretion.



The utility can and should be permitted to use and share customer usage data with contractual parties for the delivery of electric service, improvements to the delivery of electric service, and to implement energy efficiency, demand response, or energy management programs as approved by the Commission. The utility must allow access to third parties where the customer has authorized it.

For the format and methods of provisioning a customer and his/her authorized third party with the customer's retail electric usage data, the utility shall follow standards and protocols developed through national, multi-stakeholder processes. However, a utility shall not be constrained by being the first utility to implement standards developed through such processes.

Definitions

Usage Data: Information and statistics relating to a specific and identifiable retail customer's power (kW) and energy (kWh) use. Specific types of usage data include:

- *Interval Data:* Usage data collected and compiled for a particular interval of time, including but not limited to 1-hour usage increments, 30-minute usage increments, 15-minute usage increments, and 1-minute usage increments. Unless otherwise noted, "usage data" in the context of the Framework refers to interval data.
- *Summary Data:* Interval usage data provided at an aggregated, monthly format.
- *Billing Data:* Usage data used for the purposes of generating a bill for electric service, including delivery/distribution and/or supply service.
- *Billing-Quality Data:* Usage data reviewed and verified by an electric utility's internal quality assurance processes as sufficient for the purposes of billing a customer.
- *Preliminary Data:* Usage data that has not yet gone through billing system processes for quality assurance.

Participating Utility: This Framework shall apply to those Illinois electric utilities which have opted to participate in the Energy Infrastructure Modernization Act ("EIMA") by committing to smart grid investments, including the deployment of Advanced Metering Infrastructure ("AMI").

Third Party: Any entity, not including the customer or utility, which has customer authorization to access that customer's usage data. For the purposes of this Framework, a Third Party is not a reference to an alternative retail electric supplier ("ARES").



Customer-Specific Data: Customer specific billing, usage or load shape data (see 220 ILCS 5/16-122).

Personal Customer Information: Information that could be used to identify a customer: name, address, telephone number, account number, one individual's usage (see 220 ILCS 5/16-108.6(d)).

Customer Electronic Signature: A customer's affirmative indication of consent to share his/her usage data with a third party issued via a digital interface (e.g. a check box on a webpage).

Customer Authorization

How do customers authorize third parties to access usage data on their behalf and how is that authorization demonstrated by a customer?

Customers wishing to provide access to their usage data to a third party must affirmatively authorize the third party to gain access. The utility can request proof of such authorization from any third party seeking customer usage data, and can refuse to share customer usage data with any third party unable to provide such authorization. The type of data available to authorized third parties should comport with standards outlined in the "Type of Data" section of this document. A customer's authorization for third party access is valid and must be accepted by a utility if it comports with the following:

- **Term of authorization.** The default term of authorization should expire after 24 months unless otherwise specified in the terms of service agreement between the customer and authorized third party. Authorization may be renewed automatically if a customer renews his/her service contract with a third party. A customer has the ability to de-authorize third party access to his/her usage data at any time; otherwise the utility shall deny third party access to usage data upon expiration of authorization. Additionally, the utility may deny third party access to usage data upon notification of the termination of service between the customer and said third party, unless the customer has agreed to a term of authorization that extends beyond the provision of service in the terms of service agreement between the customer and authorized third party.
- **Method of authorization.** A customer's affirmative electronic signature is acceptable to a utility to indicate said customer's consent to third party access to usage data. A customer's non-electronic signature is not required to indicate to a utility that a third party has obtained customer authorization to access that customer's usage data. However, such non-electronic signature should be acceptable to the utility if the customer and third party determine it is more convenient/appropriate than alternative verbal or electronic methods. The same methods should be acceptable in the case of a



customer's decision to de-authorize third party access to his/her usage data.

- **Authorization language.** A customer wishing to authorize a utility to share his/her usage data with a third party should affirmatively agree to following authorization language using a customer electronic signature:

I, [CUSTOMER NAME] authorize [UTILITY] to provide my electricity usage information ("EUI") to [NAME OF THIRD PARTY]. The EUI includes my electricity usage levels for distinct time periods no longer than 60 minutes to the extent this information has been recorded and retained by [UTILITY].

I authorize [NAME OF THIRD PARTY] to access my EUI for the previous 24 consecutive monthly billing cycles as well as future monthly billing cycles. This authorization to access and use my EUI will expire (a) after 24 months unless otherwise specified in the terms of service agreement with [NAME OF THIRD PARTY], (b) upon notification of the termination of service with [NAME OF THIRD PARTY], unless otherwise specified in the terms of service agreement with [NAME OF THIRD PARTY] or (b) upon notification that I have revoked [NAME OF THIRD PARTY]'s authorization to access my EUI.

- **Access without authorization.** If a third party seeks access to customer usage data without customer authorization, the utility can only provide it as allowed by the "15/15 Rule" as adopted by the Commission in ICC Docket No. 13-0506. In summary, the 15/15 Rule permits utilities to provide to third parties 12 months of anonymized customer usage data of at least 15 customers within a customer class organized by groups of customers within the same ZIP+4 such that no one customer's usage data comprises more than 15% of the customer group. Utilities shall provide upon request from third parties anonymous, historical usage data comporting with the 15/15 Rule as a batch CSV or XML file provided that the third party request includes specific ZIP codes and provided that the third party has not made a similar request for the same ZIP codes within the past six months.

Types of Data

What types of data should the utility collect and share?

A customer and authorized third party should have access to the customer's usage data, including:

- **Interval Data.** Utilities should provide a customer's usage data in as short intervals as possible, with 15-minute intervals recommended, but never in intervals greater than 1-



hour. This includes power (kW) and energy (kWh) at the designated intervals. During the deployment of AMI, utilities may record usage data in intervals of 1-hour; however, utilities must conduct and disclose a cost-benefit analysis every two years following the Commission's Final Order in Docket No. 14-0507 aimed at determining the most cost-effective method for storing data. Such an analysis should include the cost of recording and storing interval data for 25%, 50%, and 100% of eligible customers at 1-hour, 30-minute, and 15-minutes and present the results of that analysis to the Illinois Commerce Commission. A utility may offer non-standard service which provides access to intervals of less than 1-hour at any time.

- **Power Data.** Utilities should provide any data relating to the customer's demand, power quality, availability, voltage, frequency, current, power factor, or other information generated by a meter and collected by the utility in the course of business.
- **Pricing Data.** Utilities should provide any and all price and rate data at the time for which the customer is being charged that rate. For price and rate data that is known in advance (e.g. day-ahead wholesale market prices or time-of-use ("TOU") prices), price and rate data should be available to a customer and authorized third party for the duration of the price and rate data availability preceding the effective time.

The utility must replace or update any preliminary data shared with customers and authorized third parties with billing-quality data once billing-quality data for that customer is available. Once billing-quality usage data is available, the utility should provide access to the customer's monthly aggregate retail electric usage data that is used for billing purposes.

Data Format

How is data shared?

Utilities will make available usage data for a customer's most recent billing period in summary form on customer bills. In addition, utilities will make available usage data electronically in the following forms:

- **Interval usage data** will be provided in an industry-standard or web-standard machine-readable format (e.g. XML).
- **Summary usage data** can be provided in a format intended to influence specific or general customer behavior (e.g. display of electricity usage during peak-time events such as may be found in home energy reports or other behavior-change programs).



Both types of usage data will be provided including rate or price type for customers on dynamic or time-of-use rate plans (e.g. real-time pricing or peak-time savings programs).

Method of Delivery

How should customers receive data?

Utilities should transfer retail electricity usage data using methods that facilitate ease of access and comport with industry standards, including but not limited to Energy Services Provider Interface ("ESPI"), or other standards-based electronic data exchange interfaces. For authorized third parties that do not require frequent exchange of data, the utility may maintain a separate process for providing bulk or aggregate customer-specific usage data to those third parties.

- **Directly from the meter.** Utilities should be able to provide usage data directly from a meter to devices within a customer's home capable of receiving usage data from a utility meter. Any and all usage data that is generated and transmitted by the meter should be in machine-readable formats.
- **Directly through the internet.** The utility should deliver usage data through the internet in machine-readable formats using industry-standard interfaces and protocols.
- **Through a web portal.** Utilities may also provide summary usage data, including interval and power data, to customers and authorized third parties through web portals operated by utilities.
- **Through mobile applications.** Utilities may also provide billing and usage data to customers in timely downloadable, comprehensive, presented, and summary data forms through mobile applications operated by utilities.

Timeliness

When should data be available?

The utility should deliver usage data to customers and authorized third parties in real-time to the extent practical. At a minimum, however, a utility shall provide interval usage data:

- Within one hour from the conclusion of an interval period when accessed directly from the internet or alternate communications network.
- Within one minute if accessed directly from the meter.



Utilities shall continually attempt to reduce latency in the delivery of interval data with the goal of sharing interval data with the customer and authorized third parties immediately following the close of the interval.

Where there is a need for utility meter data management systems and billing systems to verify usage data for the purposes of customer billing, such processes should not limit customer access to preliminary data available from a meter as soon as it is available. Customers and authorized third parties should be able to gain timely access to both preliminary data and billing-quality data.

Data Security

How should data be secured?

Data transmission to customers or authorized third parties must be done using industry-standard secure communications and encryption protocols for wireless or network communications (e.g. HTTPS).

Customer-specific data stored by the utility should be secured against unauthorized access using industry-standard cyber security protections. Utilities may require that authorized third parties adhere to the same data security protections and restrictions on customer-specific data or personal customer information as the utility.

Charges for Data Access

Customers and authorized third parties should incur no additional charge for the provision of customers' retail electric usage data in a timely, accessible manner described herein.