

ELECTRICITY USAGE DATA: OPPORTUNITIES AND POLICY CONSIDERATIONS

November 2017



Necessary Conditions

- Advanced Metering Infrastructure
 - ▣ 2009 ComEd AMI and Customer Applications Pilot
 - ▣ 2012 EIMA AMI Implementation Plans
- Data Discussions:
 - ▣ Types of Data Defined (Usage, Power Quality, etc.)
 - ▣ Protection of Data



Legal Landscape

- Public Utilities Act
 - ▣ 16-122: Municipal Aggregation Data Sharing
 - ▣ 16-108.6: Security of Data from AMI
- Consumer Fraud Act
 - ▣ 815 ILCS 505/2FFF: Natural Gas Data

Customer Usage Data

- ICC Docket No. 13-0506, *Investigation of Applicability of Sections 16-122 and 16-108.6 of the Public Utilities Act* (Jan. 2014)
 - Anonymous and Aggregated Data
 - CUB/EDF Anonymous Data Protocol
 - 30 Minute Household at ZIP+4 Level
 - Identification of PTR/NEM Customers
 - RES Access to Current Customer Data for Non-billing Purposes
 - RES Access to Prospective Customer Data



Customer Authorization Language

- ICC Docket No. 15-0073, *Investigation into the Customer Authorization Required for Access by Third Parties Other than RES to AMI Interval Meter Data* (March 2016)
 - Authorization Language
 - Authorization Format
 - Adoption of Green Button Connect
 - *Note: ICC Docket 14-0701 addressed standards for customer authorization for RES access to usage data for non-billing purposes.*



Open Data Access Framework

- ICC Docket No. 14-0507, *CUB/EDF Petition for Proceeding to Adopt the Illinois Open Data Access Framework* (July 2017)
 - Purpose
 - Organizing Principles
 - Definitions
 - Types of Data
 - Data Format
 - Method of Delivery
 - Timeliness
 - Security

Use of Usage Data

- New Data for Old Questions
 - ▣ Energy Usage and Data Set Matching
 - ▣ Modeling Rate Designs and Price Impacts
 - ▣ Confirming Intuitions (Price Effects)
 - ▣ Challenging Intuitions (Economic Actions)
- CUB/EDF Big Energy Data Project
 - ▣ Costs and Benefits of Real Time Pricing (Nov. 2017)
 - ▣ TOU Design and Impacts
 - ▣ Weather-normalized RTP