

USE CASE: COMMUNITY-WIDE ENERGY USAGE DATA



Helps local governments calculate carbon emissions, set policy goals, track program progress over time, and identify opportunities for more targeted outreach around priorities like building efficiency.

DESCRIPTION

A request for community-wide energy usage data will likely ask for the sum total of kWh and/or therm consumption by the utility's customers within the city's geographic boundaries. Individual addresses or account numbers are not a component of such a request. These requests may include the following variations, depending on the city's policy purpose:

- A temporal component, such as a request for one or more calendar years so that a city can compare progress to a baseline, or a request for monthly data so a city can weather-normalize.
- A geographic component, such as a request for data to be provided based on zip codes or zip+4, Census blocks, neighborhoods, or another attribute to allow for visualization.
- An industry component, such as a request that usage be split out based on customer class (residential, commercial, industrial), rate class, or industry code (e.g., NAICS).

ROLE MODELS

- [COLORADO AND MASSACHUSETTS MAKE COMMUNITY ENERGY USAGE DATA PUBLICLY AVAILABLE FOR CLIMATE ACTION PLANNING](#)
- [THE COMO ENERGY CHALLENGE BUILDS RELATIONSHIPS AND ENERGY SAVINGS](#)
- [SEATTLE USES ENERGY DATA TO FORECAST THE IMPACT OF ENERGY POLICIES](#)
- [FORT COLLINS UTILITIES DRIVES ENERGY SAVINGS WITH DATA INNOVATION](#)
- [UNIVERSITIES CAN SERVE AS TRUSTED DATA MANAGERS](#)

¹ California Public Utilities Commission. "Decision Adopting Rules to Provide Access to energy Usage and Usage-Related Data while Protecting Privacy of Personal Data." May 2014. <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M090/K845/90845985.PDF>

² 4 CCR 723-3 Rule 3035, <https://drive.google.com/file/d/0B8qvU2knU8BkcEJneE93YkNRQmM/view>.

³ Massachusetts Department of Public Utilities, Docket 14-141 Response of the Department of Public Utilities to Data Privacy and Data Security Issues Related to the Statewide Energy efficiency Database. December 1, 2014. <https://eeaonline.eea.state.ma.us/EEA/FileService/FileService.Api/file/FileRoom/9230790>

BETTER DATA PRACTICES

Cities have identified the following practices as useful:

- Developing a reasonable process for aggregating data to ensure that no single customer is identified. In contrast to the more aggressive approaches of California, Colorado, and Massachusetts, the Chicago Energy Data Map⁴ provides electric and natural gas usage from 2010 by neighborhood and Census block where there are at least 4 accounts present.⁵ The City of Charlotte, N.C., was also approved to receive energy usage data through the University of North Carolina at Charlotte when there were at least 5 customer accounts at a zip code plus four level.⁶
- Providing breakdowns by industry segment or customer class.
- Rolling data up into the next highest unit (such as from industrial to commercial and industrial) or geographic area (such as from neighborhood to city), instead of excluding large customers.

BEST DATA PRACTICES

Cities have identified the following practices as industry-leading:

- Allowing cities to submit GIS polygons so that cities and utilities can agree on boundaries prior to data release.
- Releasing data publicly at least annually.
- Releasing data in executable formats, such as spreadsheets.
- Where a city is served by multiple utilities, have data be combined from utilities by a third party on the city's behalf.

⁴ "Chicago Energy Data Map." The City of Chicago. <http://energymap.cityofchicago.org/>

⁵ "Energy Usage 2010." The City of Chicago. <https://data.cityofchicago.org/widgets/8yq3-m6wp>

⁶ North Carolina Utilities Commission, Docket No. E-7, Sub 997, Order Approving Limited Waiver of Code of Conduct, <https://starw1.ncuc.net/NCUC/ViewFile.aspx?id=a2cbc260-00a5-4997-a6982202cd555242>.

POOR DATA PRACTICES

Cities have found the following practices impede the usefulness of community-wide data:

- Failing to notify the city where an error is discovered such that the current data is inaccurate.
- Requiring both aggregation and an NDA such that data is not useful and is not capable of being publicly used.
- Adopting overly aggressive data privacy practices from which customers are unpredictably removed. States like California,¹ Colorado,² and Massachusetts³ apply fairly restrictive aggregation rules to community-wide data reports—requiring between 15 and 100 premises within a city per customer type. Local governments have found it difficult to assess progress year to year as utilities remove or add back in customers without explanation or context.