Energy Benchmarking with Xcel Energy

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Agenda

- Overview of the benchmarking and transparency landscape across the United States
- Discussion of barriers involved in gaining access to energy utility data
- Best practice solutions for utility providers
- Preview to Xcel Energy's Energy Benchmarking system

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Benchmarking & Transparency in the U.S.

U.S. Building Benchmarking and Transparency Policies
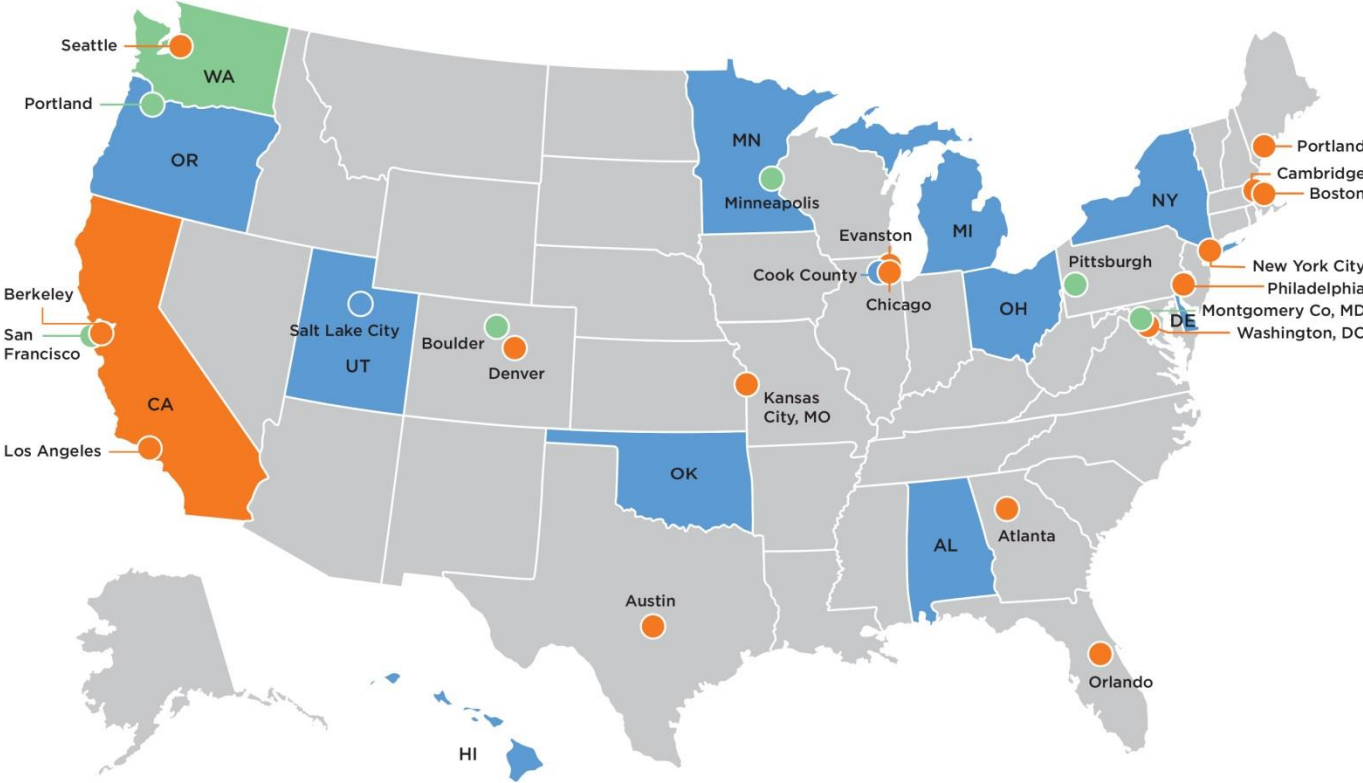
Legend:
- 🟠 Public, commercial, and multifamily building benchmarking policy adopted
- 🟢 Public and commercial building benchmarking policy adopted
- 🔵 Public buildings benchmarked

Building Rating — SHARING TRANSPARENCY FOR A MORE EFFICIENT FUTURE

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Drivers – Energy Efficiency Potential

Energy Savings in Portfolio Manager

Consistent benchmarking in buildings results in energy savings and improved performance

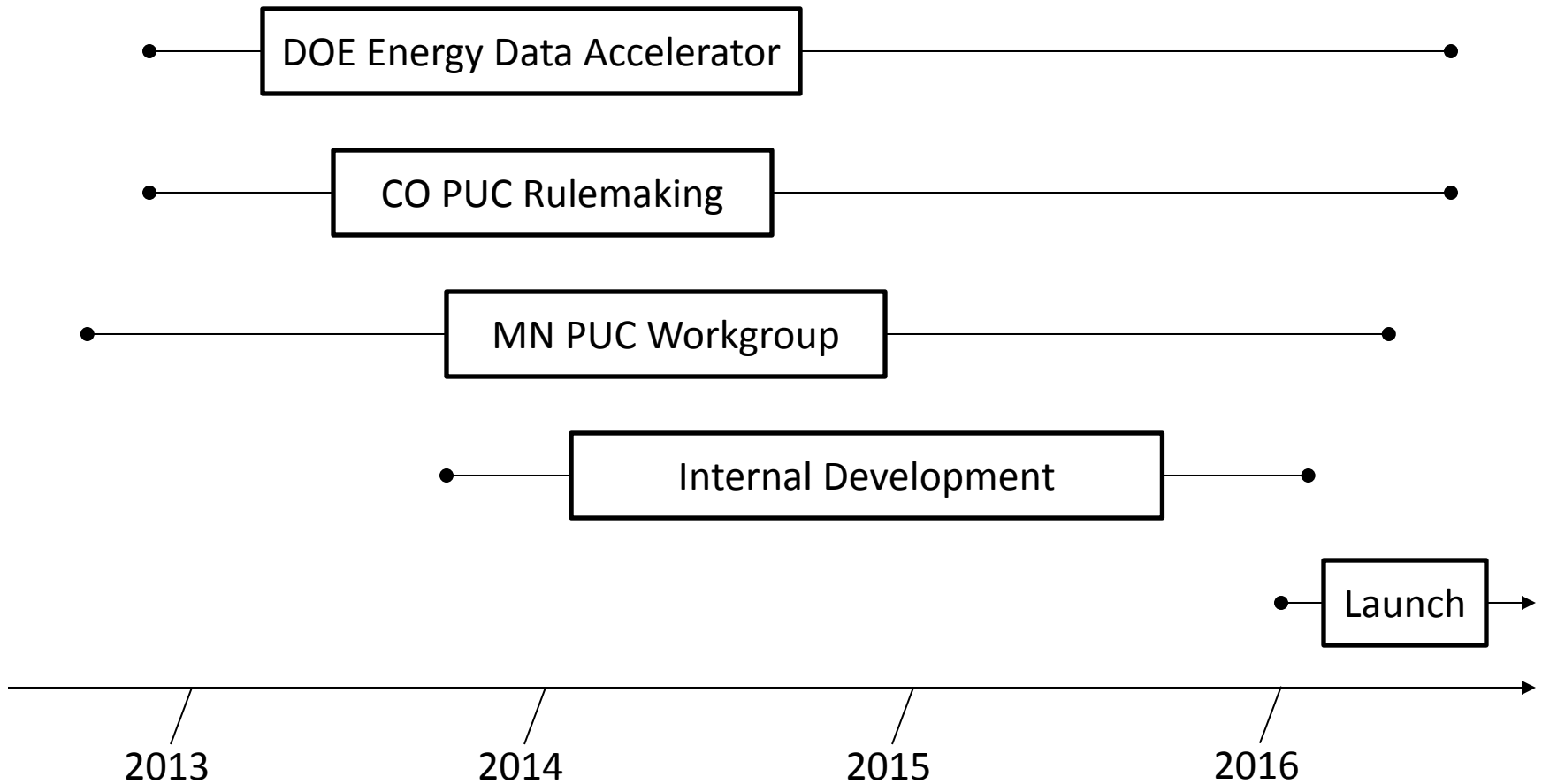
7% Savings

6 point increase
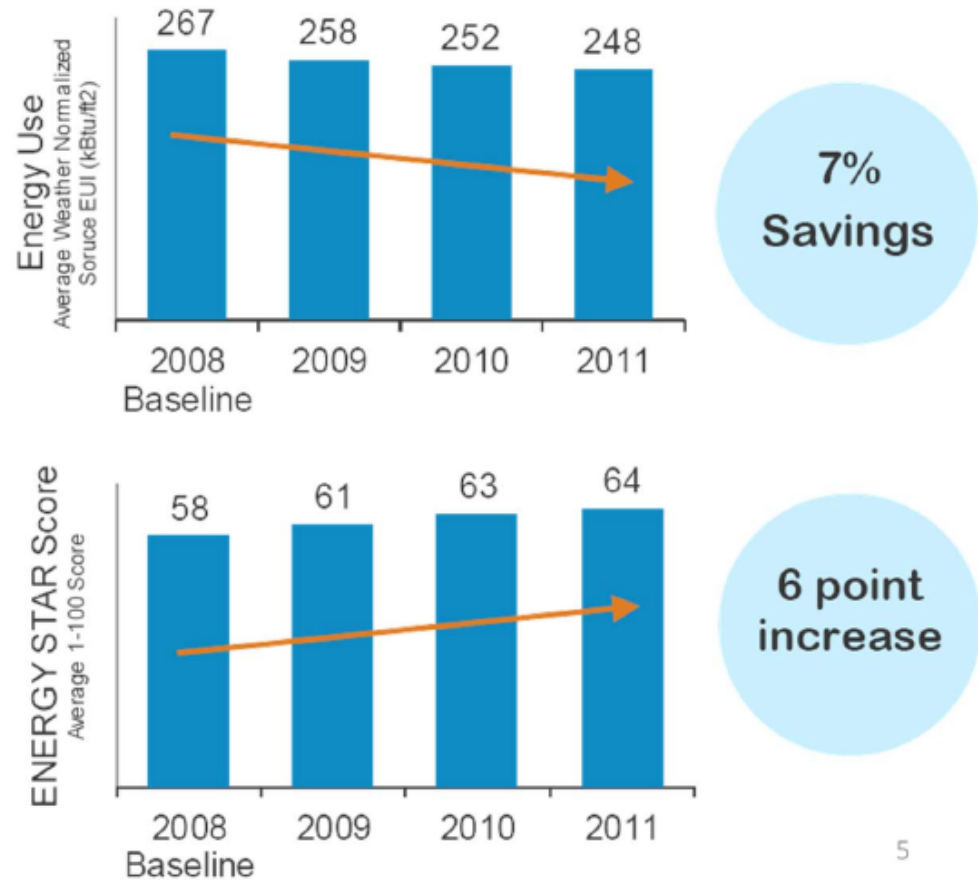
Source:
http://www.energystar.gov/ia/business/downloads/datatrends/DataTrends_Savings_20121002.pdf?8d81-8322

EPA

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But barriers exist

- Data availability
- Protection of consumer privacy and confidentiality interests
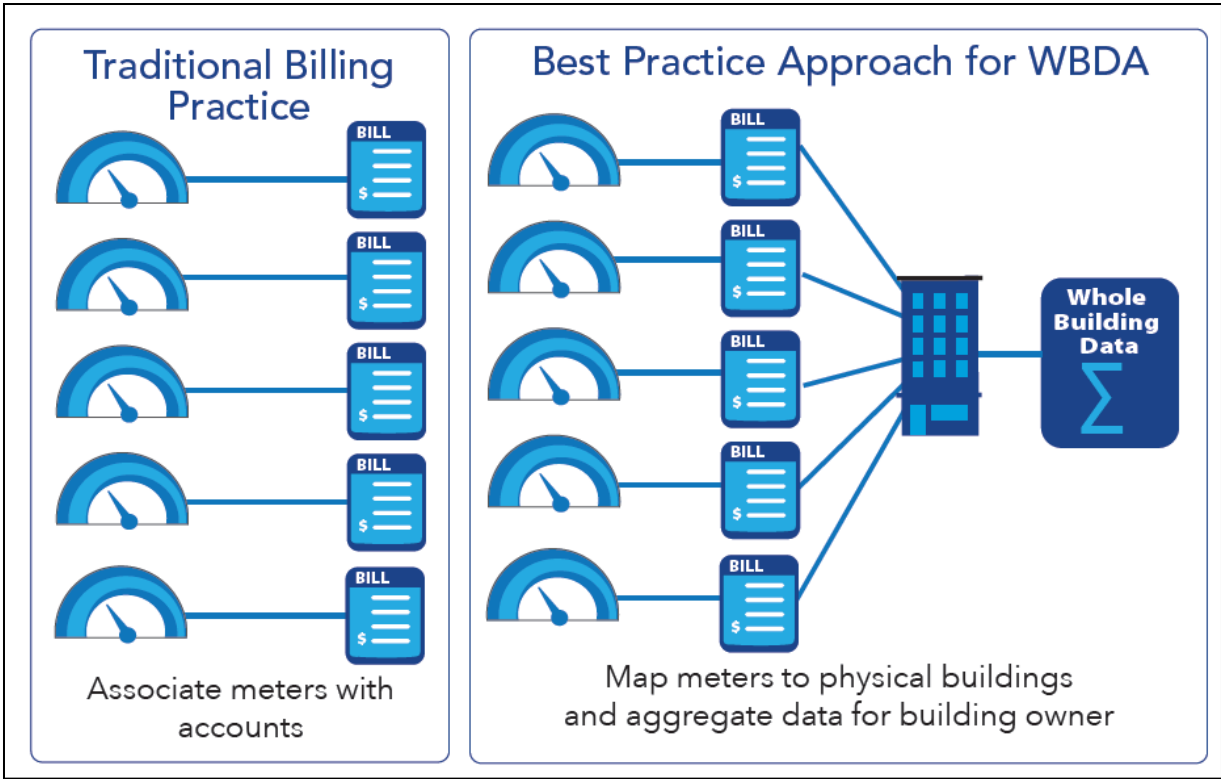- Data quality

How Xcel Energy approached these barriers

DOE Energy Data Accelerator

CO PUC Rulemaking

MN PUC Workgroup

Internal Development

Launch

2013　　2014　　2015　　2016
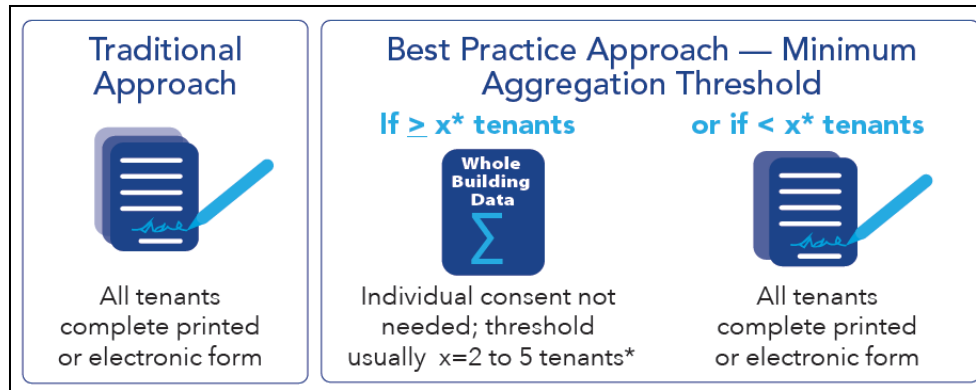
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DOE Energy Data Accelerator

…DOE will accelerate the ability of building owners to gain access to whole-building data by working together with cities and utilities to:

- Demonstrate **low-cost, standardized approaches** for providing energy data for the purpose of whole-building energy performance benchmarking.
- Develop best practice approaches for **reliable and secure** utility aggregation of energy data from multiple accounts to facilitate whole-building benchmarking while **protecting privacy**.
- Demonstrate new tools to **streamline the transfer** of utility bill data to benchmarking tools, including standard data formats for ENERGY STAR® Portfolio Manager.

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Best Practice #1: Aggregate

Traditional Billing Practice
Associate meters with accounts

Best Practice Approach for WBDA
Whole Building Data
Map meters to physical buildings and aggregate data for building owner

Best Practice #2: Streamline Consent Process

Traditional Approach

All tenants complete printed or electronic form

Best Practice Approach — Minimum Aggregation Threshold

If ≥ x* tenants

Whole Building Data
Σ

Individual consent not needed; threshold usually x=2 to 5 tenants*

or if < x* tenants

All tenants complete printed or electronic form

CO PUC Rule for Whole Building Access

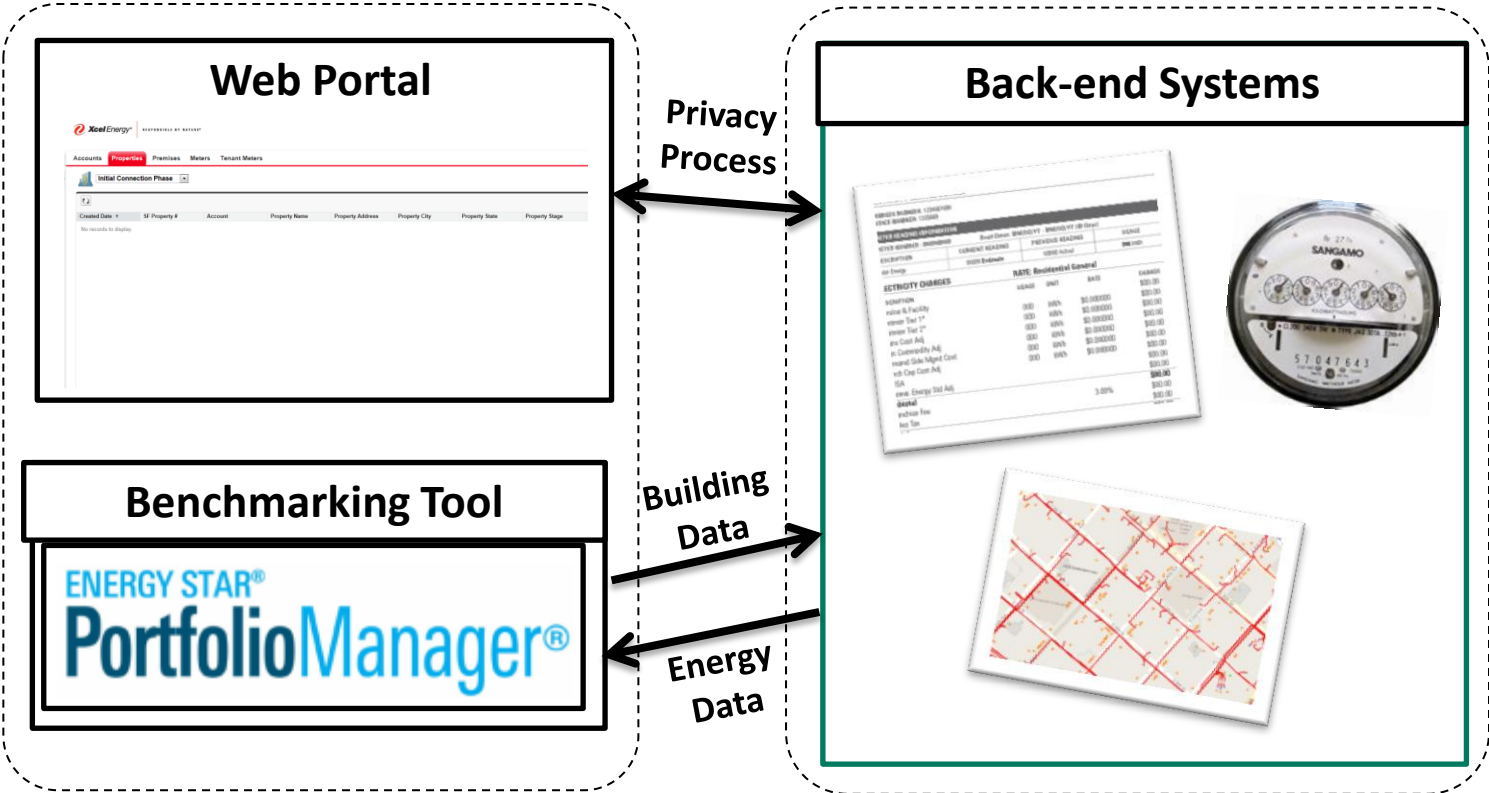**3034. Property Owner Request for Whole Building Energy Use Data from a Utility.**

(a)   If requested by a property owner or its authorized agent, a Tier I utility shall provide whole building energy use data to the property owner or its authorized agent so long as:

(I)   the whole building energy use data contains at least four customers or tenants, which may include the property owner's own account; and no single customer's customer data, unless it is the property owner's, comprises more than 50 percent of the whole building energy use data used to generate the whole building energy use data report;

(II)   the property owner agrees to not disclose the whole building energy use data except for the purposes of building benchmarking, identifying energy efficiency projects, and energy management; and
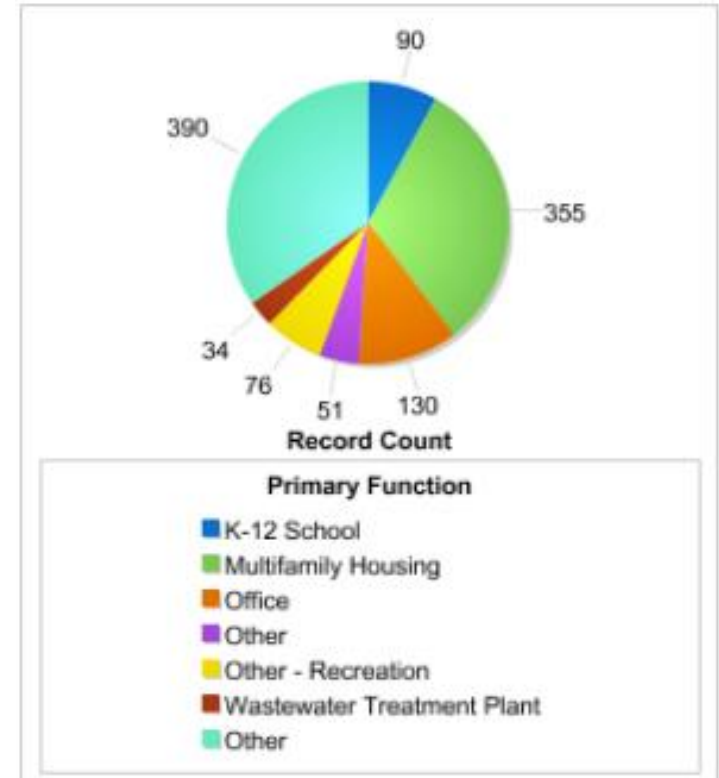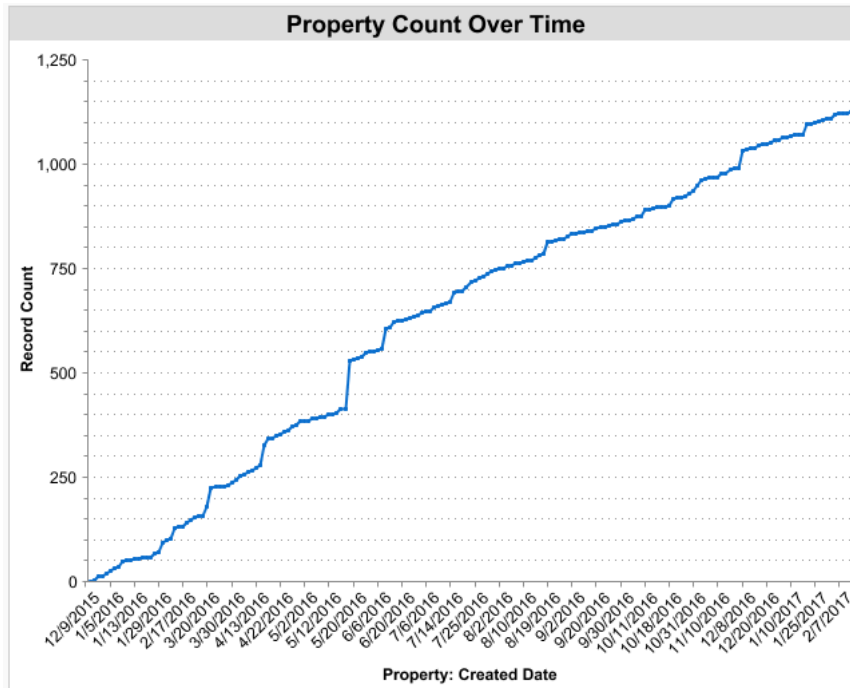
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Best Practice #3: Utility Auto-Upload

Traditional Approach
Manually enter usage data

Best Practice Approach
Web service automatically transfers whole-building energy usage data on behalf of the building owner
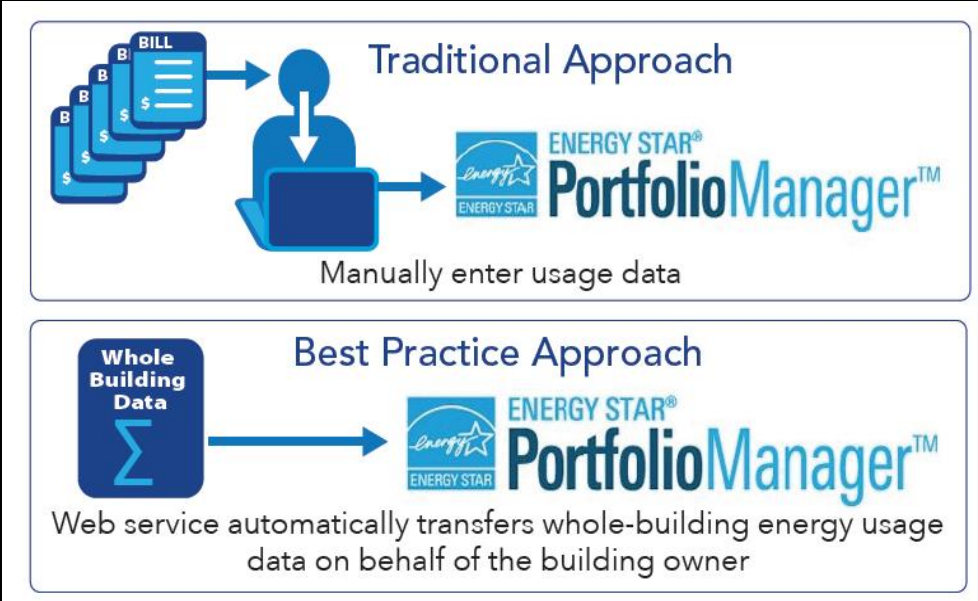
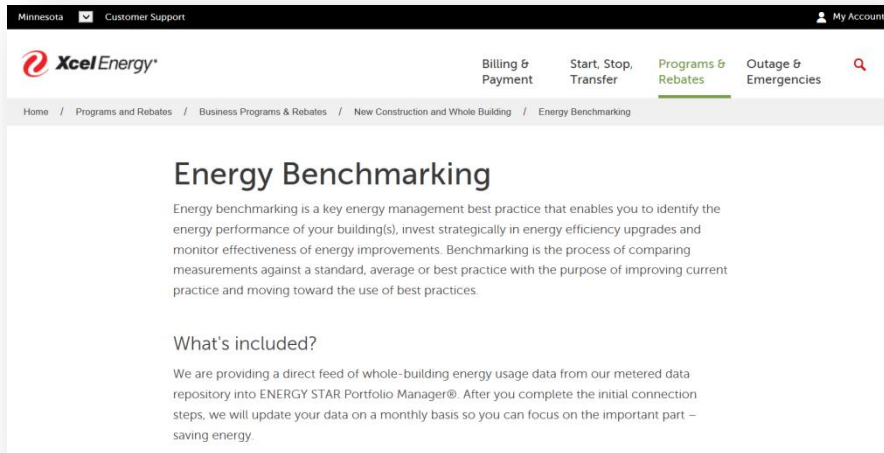**Xcel** *Energy*®

Solution Overview
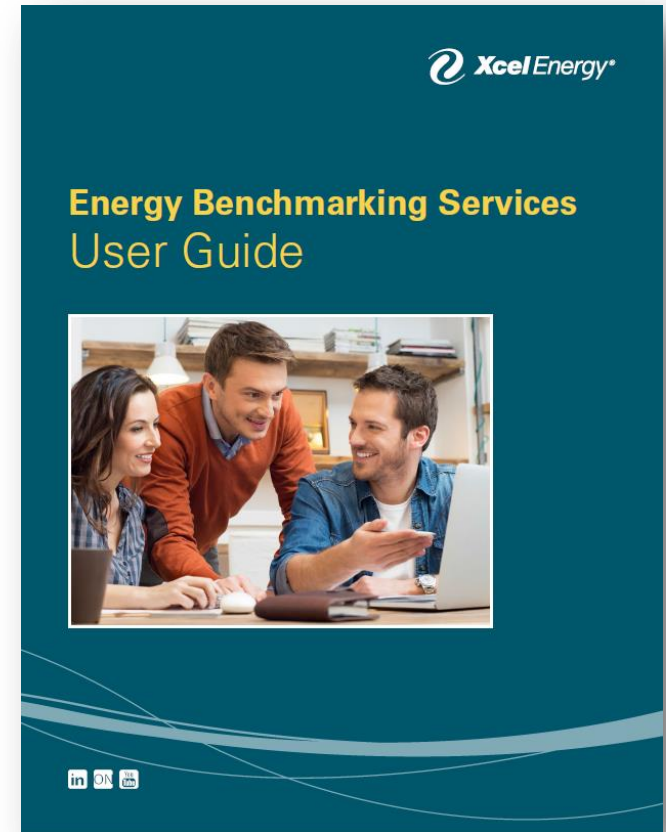
Current Participation Statistics

More Information

www.xcelenergy.com/energybenchmarking

Questions? Email us at
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Xcel Energy | Responsible By Nature

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