Energy Benchmarking with Xcel Energy

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Agenda

- Background Information
- Development Process
- Solution Itself
- Current Participation Statistics
- Integration within Xcel Energy’s DSM Portfolio
- Looking forward
Drivers - Demand
Drivers – DSM Potential

Consistent benchmarking in buildings results in energy savings and improved performance.

Development of Solution

- DOE Energy Data Accelerator
- CO PUC Rulemaking
- MN PUC Workgroup
- Internal Development
- Launch

2013 2014 2015 2016
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.
Best Practice #1: Aggregate

**Traditional Billing Practice**

- Associate meters with accounts

**Best Practice Approach for WBDA**

- Map meters to physical buildings and aggregate data for building owner
Best Practice #2: Streamline Consent Process

<table>
<thead>
<tr>
<th>Traditional Approach</th>
<th>Best Practice Approach — Minimum Aggregation Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>All tenants complete printed or electronic form</td>
<td>Whole Building Data</td>
</tr>
<tr>
<td></td>
<td>Individual consent not needed; threshold usually $x = 2$ to $5$ tenants*</td>
</tr>
<tr>
<td></td>
<td>All tenants complete printed or electronic form</td>
</tr>
</tbody>
</table>

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
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
Solution Overview

Web Portal

Benchmarking Tool

Back-end Systems

Privacy Process

Building Data

Energy Data
## Current Participation Statistics

<table>
<thead>
<tr>
<th></th>
<th>Number of Buildings</th>
<th>Ave Elec Tenants</th>
<th>Min Elec Tenants</th>
<th>Max Elec Tenants</th>
<th>Ave Gas Tenants</th>
<th>Min Gas Tenants</th>
<th>Max Gas Tenants</th>
</tr>
</thead>
<tbody>
<tr>
<td>MN MF Master Meter</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>MN MF Multi-Tenant</td>
<td>136</td>
<td>49</td>
<td>2</td>
<td>380</td>
<td>17</td>
<td>1</td>
<td>255</td>
</tr>
</tbody>
</table>

### Property Count Over Time

![Property Count Over Time](chart.png)
Integration with Xcel Energy’s MFBE Program

- Benchmarking is used at the beginning of the program to set energy baseline
- Service and building information are available to building owners (Xcel Energy data only) after program participation
- Building owners outside of program are always eligible to participate in the Benchmarking Service.
• As outcome of recent PUC hearing, initial plan is to continue current practices
• Formalize with PUC and stakeholders through filing after order is issued.

MN Policy Landscape
For more information:

www.xcelenergy.com/energybenchmarking

Energy Benchmarking

Energy benchmarking is a key energy management best practice that enables you to identify the energy performance of your building(s), invest strategically in energy efficiency upgrades and monitor effectiveness of energy improvements. Benchmarking is the process of comparing measurements against a standard, average or best practice with the purpose of improving current practice and moving toward the use of best practices.

What’s included?

We are providing a direct feed of whole-building energy usage data from our metered data repository into ENERGY STAR Portfolio Manager®. After you complete the initial connection steps, we will update your data on a monthly basis so you can focus on the important part—saving energy.

Questions? Email us at benchmarking@xcelenergy.com
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