2013 Efficiency Forum
Market Solutions Team – Breakout Session III

Overcoming Obstacles to Data Access: Who, What, Where, and How

May 30, 2013
10:15 – 11:45 AM MST
Welcome, Introductions, and Overview
- Andrew Schulte, ICF International

Setting the Context: The Importance of Data Access for Building Owners
- Marla Thalheimer, Liberty Property Trust

Utility Data Access Programs: A National Overview
- Andrea Krukowski, Institute for Market Transformation

Putting Data Access Into Practice: A Philadelphia Case Study
- Laurie Actman, Energy Efficient Buildings Hub

Panel Discussion
Key Data Access Efforts Underway

- Better Buildings Alliance
  - Market Solutions Team
- Better Buildings Challenge
  - Implementation Model (forthcoming)
- State & Local Energy Efficiency Action Network
  - A Utility Regulators’ Guide to Data Access for Commercial Building Energy Performance Benchmarking
- Energy Efficient Buildings Hub/IMT
  - Utilities’ Guide to Data Access for Building Benchmarking
- Industry/NGO Collaborations
  - Data Access and Transparency Alliance (DATA)
- Industry/Government Collaborations
  - Green Button
Who We Are

- Large publicly-traded office and industrial REIT
- 20 regional markets
- 79 million square feet of office and industrial properties
- A key corporate strategy to be a leader in sustainability and “High Performance” Buildings
- 60 LEED Projects Completed or Under Construction
  - 10.5+ million square feet
- 109 Energy Star Buildings Certified
  - 13+ million square feet
  - Average Portfolio Score 75
  - 21% Energy Savings
LPT Progress Over Time

- Benchmark 100% of managed buildings
- Improved progress year over year
- Estimated over $5M in savings

### Energy Goal Tracking - Same Store*

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy reduction over 2008 baseline</td>
<td>-0.5</td>
<td>-6.1</td>
<td>-9.8</td>
<td>-13.2</td>
<td>-20.4</td>
</tr>
<tr>
<td>Portfolio Average</td>
<td>55</td>
<td>59</td>
<td>63</td>
<td>69</td>
<td>74</td>
</tr>
<tr>
<td>Energy Star Certifications; current portfolio</td>
<td>6</td>
<td>11</td>
<td>50</td>
<td>66</td>
<td>89</td>
</tr>
<tr>
<td>Energy Star certifications: including sold bldgs</td>
<td>6</td>
<td>15</td>
<td>64</td>
<td>84</td>
<td>106</td>
</tr>
</tbody>
</table>

*This list represents the 113 buildings that we have tracked consistently over the entire time period.*
Liberty Energy Efficiency Partnership

- Partnership program for tenant-controlled Buildings
- Provides value add for tenants
- Helps us better understand the efficiency of that part of the portfolio
- 65 Tenant Partners
  - Warehouse: 47 partners
    - 12 are ENERGY STAR certified
  - Single Tenant Office: 18 partners
    - 5 ENERGY STAR certified
Goal:
- Electronic access to tenant utility accounts
- Third party solution to gather data electronically into dashboard and upload into ESPM

Successes:
- Some utility companies allow us to create an online LPT account for all buildings

Challenges:
- Unable to get online access, currently entering data manually for 42 of the partners
- Only way to access is through tenants online access account
  - Tenants hesitant to give us their log in (understandably)
- Adding LPT as a user to tenant account to receive bill copies where online access not possible
  - Accounts have gone into our name and out of tenant name
- Very inconsistent across country
  - Considering eliminating program from certain areas due to problems
Andrea Krukowski
Institute for Market Transformation
About the Institute for Market Transformation

- National best practices center for design, adoption, and implementation of building energy performance policies in cities
- Policy advisor to state and local governments, federal agencies, the Administration, and industry groups
- One of founding members of Data Access and Transparency Alliance (DATA)
## Current Utility Practices

<table>
<thead>
<tr>
<th>Utility Company</th>
<th>Aggregate Whole-building Data</th>
<th>Automated Upload to Portfolio Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austin Energy (Texas)</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Avista (Washington)</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>California IOUs</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Commonwealth Edison (Illinois)</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Consolidated Edison (New York)</td>
<td>✓</td>
<td>-</td>
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<tr>
<td>PECO (Pennsylvania)</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Pepco (District of Columbia)</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>Puget Sound Energy (Washington)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Seattle City Light (Washington)</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Utility Data Access Programs

- California
  - PG&E
  - Sacramento Municipal Utility District
  - Southern California Edison
  - San Diego Gas & Electric

- Connecticut
  - Connecticut Light & Power

- Washington & Seattle
  - Avista Utilities
  - Puget Sound Energy
  - Seattle City Light

- Chicago
  - Commonwealth Edison

- Philadelphia
  - PECO

- Washington, DC
  - Pepco

- Austin
  - Austin Energy

- New York City
  - Consolidated Edison
  - National Grid
  - Department of Environmental Protection
U.S. Building Energy Benchmarking Policies
Utility Challenges

- Privacy Concerns
- Cost Recovery
- Technical Infrastructure
Utility Meter Data Sensitivity

Type of energy data

- Residential
- Nonresidential
- Aggregated residential (multifamily)
- Aggregated nonresidential

Timeliness

- Monthly
- Interval Meter
- Real Time

Most likely to raise privacy concerns

Least likely to raise privacy concerns
<table>
<thead>
<tr>
<th>Utility Company / PUC</th>
<th>Account Aggregation Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Practices</strong></td>
<td></td>
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<tr>
<td><strong>Better Buildings Alliance</strong></td>
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<tr>
<td><strong>Utility Company / PUC</strong></td>
<td></td>
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<tr>
<td>Austin Energy (Texas)</td>
<td>4/80</td>
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<tr>
<td>Avista (Washington)</td>
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<tr>
<td>California IOUs</td>
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<tr>
<td>Colorado PUC</td>
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<tr>
<td>Commonwealth Edison (Illinois)</td>
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<tr>
<td>Consolidated Edison (New York)</td>
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<tr>
<td>Minnesota PUC</td>
<td>TBD</td>
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<td>Pepco (District of Columbia)</td>
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Benefits for Utilities

- A gateway for other energy efficiency programs
- A tool to target and maximize savings
- Data to analyze energy efficiency programs and validate savings
- Improves customer service
Of participants who benchmarked:

- **62%** took energy management actions
- **84%** planned or implemented energy efficiency improvements
- **81%** link improvements to utility efficiency programs

Source: NMR Group, Inc. & Optimal Energy, Inc.
Technical Challenges

- Utilities don’t always know what a building is
- Existing systems may not have the capability of pulling data and storing values
- Billing cycles
DATA formed in 2011

July 2011: NARUC approves resolution calling on regulators to provide better data access to commercial owners

SEE Action Regulator’s Guide to Data Access for Benchmarking

DOE Voluntary Code of Conduct

Minnesota, California PUCs currently considering issue of data aggregation

More utilities funding efforts through energy efficiency portfolios
Laurie Actman
Energy Efficient Buildings Hub
About the EEB Hub

- Third of 5 Energy Innovation Hubs
- Established in 2011 after a national competition
- Led by Penn State, 25 partners, public private-partnership
- Based at the Navy Yard in Philadelphia
- Mission to reduce energy use by 20% by 2020 in the region’s commercial and multifamily building sector
  - Multi-disciplinary, broad mission focused on adoption of average sized retrofits with an integrated approach
Benchmarking and Disclosure in Philadelphia

Requires commercial building owners of 50,000 square feet or over to annually disclose their building energy and water use using EPA’s Portfolio Manager tool.

- Owner also required to report building characteristics and usage.
- Sellers required to provide a statement of building energy performance to buyers and lessees.
- Electronic data transfer from a utility or third party provider is allowed.
- Initial deadline for compliance is October 31, 2013, but ordinance effective immediately.
Coordinated Engagement with Utilities

- Early engagement with our utilities and utility regulators was very important
  - Other cities that didn’t engage utilities early in the process had only moderate compliance rates
  - PUC staff needed to learn the basics

- EEB Hub served as technical advisor and led utility engagement with regard to data access
  - Brought key stakeholders together to explore data access issue—Mayor, Real Estate CEOs, PUC, Utilities
  - Launched Regional Data Access Working Group

- Process endorsed by Chair of the PUC
Key Milestones in Engagement Process

EEB Hub convened three meetings for utilities and content experts:

- **July 2012:**
  - Hub conducted research and building owner survey per PECO’s request
  - Presentations from IMT, DOE, White House CEQ, EPA, PUC, PECO, City, BOMA

- **October 2012:**
  - Seattle, NYC, and Chicago utilities presented
  - PECO announced that it would pursue automated exchange of data with Portfolio Manager via web services, and would include in rate case filing

- **February 2013**
  - Presented Best Practices report with IMT
  - Resource for other utilities in the region and country
Key Outcomes

- PECO developing web services to exchange data with customer Portfolio Manager accounts
- EEB Hub recognized convener of utility-related issues in the region
- PUC now relying on the Hub for education, strategy and engagement related to building energy efficiency
- Lessons learned can scale nationally
Benchmarking Next Steps

- Key partner with MOS, DVGBC, EPA, PECO, BOMA
- Online portal
- Data collection strategy and management
- Building owner and tenant education and tools
- Policy best practices and advice (regional interest)
- Navy Yard—test bed and lead by example
- New ventures
- National convener and partner
- Leveraging interest to drive retrofit activity
Panel Discussion
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