

Leading commercial building owners and operators in the Philadelphia area have been actively tracking the performance of their properties and demonstrating the value of benchmarking as a foundation for successful energy management. In July 2012, the City of Philadelphia sought to drive energy efficiency in commercial buildings by passing an ordinance requiring all commercial buildings over 50,000 ft² to annually benchmark and disclose energy performance using EPA's Portfolio Manager[®] tool. The ordinance applies to approximately 2,400 buildings and more than 350 million ft² of space. Energy and water data reporting for calendar year 2012 was due in November 2013, and data will be posted for public review starting in June 2014.

Based on the experience of other jurisdictions that had implemented benchmarking mandates, customer access to utility data was a key factor in the success of these policies. In fact, jurisdictions that didn't engage with utilities early in the process had only moderate compliance rates. This provided an opportunity for utilities and utility regulators to be educated on the basics of benchmarking and the important role that data access plays in driving energy savings. Recognizing this, the Philadelphia-based Energy Efficient Buildings (EEB) Hub was asked to serve as a convener and technical advisor to lead utility and stakeholder engagement with regard to data access.



The Regional Building Energy Data Management Working Group was convened to bring together the important regional stakeholders in energy data access. (From L to R: Tom Bonner, PECO; Michael O'Leary, PECO; Cody Taylor, DOE; Andrea Krukowski, IMT; Cliff Majersik, IMT; Alex Dews, City of Philadelphia; Laurie Actman, EEB Hub; Rob Powelson, Chairman of the PA PUC)

DATA ACCESS IS A CRITICAL FACILITATOR FOR REDUCING COMMERCIAL BUILDING ENERGY USE

- ▶ Benchmarking is an energy management best practice for commercial and public sector property owners and operators. Furthermore, an increasing number of cities and states are now requiring commercial and/or private sector buildings to benchmark and disclose their energy performance.
- ▶ Streamlined access to energy data helps buildings to be quickly and accurately benchmarked. However, barriers to data access exist.
- ▶ Utilities are in a unique position to provide enhanced access to building energy consumption data, thereby assisting property owners/operators to benchmark energy performance as a first step towards improved energy management. Approaches may involve:
 - Access to aggregated, whole-building energy consumption data while protecting individual tenant privacy.
 - Enhanced means for customers to access their energy consumption data, beyond paper billing or basic web display.
 - Access to energy consumption data in a manner that facilitates entry of information into tools such as EPA's Portfolio Manager.

“The EEB Hub was thrilled to act as the convener for the Philadelphia process – but you don’t need a regional Energy Efficiency Hub to make this work. The most important thing is that the convener be a credible organization that can identify, reach out to, assemble, and follow up with all of the various audiences with a stake in the data access discussion.”

– Laurie Actman, Interim Director, EEB Hub

THE BUILDING OWNER’S NEED FOR DATA ACCESS

Liberty Property Trust (LPT), a large office and industrial real estate investment trust with significant assets in the Philadelphia region, has been tracking energy use in its managed portfolio since 2008. To date, it has certified 110 ENERGY STAR® buildings covering over 15 million ft² of space across the country, saving over 20% in energy usage. This success is based on the managed portfolio where LPT pays the utility bills and has direct data access. However, the remainder of the portfolio operates under triple-net leases where tenants are billed directly by the utility for energy consumption.

In an effort to benchmark the tenant-controlled buildings and provide a value-add service to their tenants, LPT created the Liberty Energy Efficiency Partnership. The goal of the program is to help the tenants save energy and money while providing LPT with a better understanding of the efficiency of these assets. A key component of this initiative requires access to energy consumption data from the tenant utility accounts, and the program has run into significant challenges due to data access issues. With examples like this, LPT was able to help local utilities and regulators understand the importance of data access as a critical component of successful energy management efforts. In this way, LPT and other property owners were able to contribute to the decision to develop a streamlined data access mechanism for commercial buildings in Philadelphia.

With the support of the Chair of Pennsylvania’s Public Utility Commission (PUC), key stakeholders were brought together – including the Mayor of Philadelphia, CEOs of leading real estate companies, utilities, the U.S. Department of Energy, and the U.S. Environmental Protection Agency – for three in-person meetings. These meetings included presentations from other utilities and jurisdictions that had previously engaged with these issues.

The working group developed guidance for utilities interested in data access solutions and provided feedback on the SEE Action Network’s Utility Regulator’s Guide to Data Access for Commercial Building Energy Performance Benchmarking.

Results

As a result of this stakeholder engagement process, PECO, the largest electric and natural gas utility in Pennsylvania, committed to offering automated upload of customer energy data into EPA’s Portfolio Manager tool via web services. The utility also committed to offering energy data to customers via the new Green Button format as another means of making data more readily available.

Enhanced access to whole-building energy consumption data enables and facilitates benchmarking

Benchmarking leads to increased energy efficiency project activity, including participation in ratepayer-funded efficiency programs

Energy efficiency efforts drive cost savings for building owners/occupants, and energy savings for program administrators and policymakers

The Benchmarking Value Chain: From Data Access to Energy Savings

Strategies for Success

Drawing from the experience in Philadelphia, the following approaches can lead to success when engaging with real estate professionals, utilities, regulators, and policymakers to identify and implement data access solutions.

Strategy 1: Identify an organization that can serve as the convener/moderator for these discussions

In the case of Philadelphia, the City choose to engage the EEB Hub to play this role. However, different jurisdictions may have different entities that are best suited to play this role.

Strategy 2: Identify and reach out to key stakeholders

Make sure to include local utilities, utility regulators, commercial building owners/operators, local government representatives, and relevant NGOs.

Strategy 3: Ensure that all parties understand the value of benchmarking as a driver of energy efficiency

Data access is an enabler for energy management activities such as benchmarking. In order to secure buy-in for data access, therefore, it will be important to establish the role that data access plays in driving benchmarking activity and subsequent energy management efforts.

Strategy 4: Understand best practices and lessons for data access from around the country

There is no need to “reinvent the wheel” when other local jurisdictions and utilities have worked through this issue.



Participants at the 2013 Better Buildings Alliance Efficiency Forum discuss initiatives including data access during a Market Solutions Team session. Speaking: Marla Thalheimer, Liberty Property Trust

KEY RESOURCES FOR DATA ACCESS

- ▶ [State and Local Energy Efficiency Action Network \(SEE Action\): A Utility Regulator's Guide to Data Access for Commercial Building Energy Performance Benchmarking](#)
- ▶ [IMT/EEB Hub: Utility's Guide to Data Access for Building Benchmarking](#)
- ▶ [Better Buildings Challenge Implementation Models](#)
- ▶ [Better Buildings Alliance Data Access Project Team](#)
- ▶ [Regulatory Assistance Project \(RAP\): Driving Building Efficiency with Aggregated Customer Data](#)
- ▶ [DATA Alliance](#)

Peer-to-peer communication is important with both real estate owners and utilities, so leveraging their participation as expert speakers in meetings is recommended. There are a number of pre-existing resources from organizations such as the Institute for Market Transformation (IMT) and the SEE Action Network.

Strategy 5: Understand the specific considerations and parameters affecting the local utility's ability to provide enhanced access to data

Best practices from other utilities can provide a significant head start, but it is also important to understand that no two scenarios will be exactly alike, due to differing regulatory frameworks, technical capabilities, and other considerations.

Strategy 6: Publicize efforts

Broadcast efforts to ensure that your experience can help to educate and guide the next jurisdiction/utility wrestling with the issue. By sharing your success, you draw attention to the importance of enhanced data access and the benefits it can bring.

Other Considerations

- ▶ Convening and implementation can take between 1 and 2 years, so the local convener needs to be prepared to commit time and programmatic resources.
- ▶ Even where building owners are not required to benchmark the energy performance of their buildings, facilitated access to energy consumption is valuable to building owners that are tracking and managing energy voluntarily.
- ▶ Discussions surrounding data access can serve as an important opportunity for building owners and local utilities to develop deeper relationships, and to better understand the drivers and barriers that each party is facing.

The Better Buildings Alliance partnered with the Liberty Property Trust (LPT) and the Energy Efficient Buildings Hub (EEB Hub) to write and develop this case study. LPT is a large publicly traded office and industrial real estate investment trust and manages 80 million ft² of commercial space. EEB Hub is an organization funded by the Department of Energy, with a unique dual mission of improving energy efficiency in buildings and promoting regional economic growth and job creation.

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