

Benchmarking Fact Sheet

December 2013

Leading utilities are helping building owners, property managers, businesses and governments benchmark the energy performance of their buildings

What is Benchmarking?

Building benchmarking is the act of measuring the energy performance (or water consumption) of a building, so that its energy performance can be compared over time, to a norm, or to a group of peers. The industry's most popular benchmarking tool is ENERGY STAR Portfolio Manager. To benchmark in Portfolio Manager, building owners or managers need 12 consecutive months of whole-building data.

What are Portfolio Manager web services?

Portfolio Manager web services¹ allow utilities to securely transfer energy consumption data directly into the accounts of building owners or managers using Portfolio Manager, helping facilitate benchmarking by saving customers time and expense. Utilities can also enable benchmarking by providing whole-building utility data to building owners.

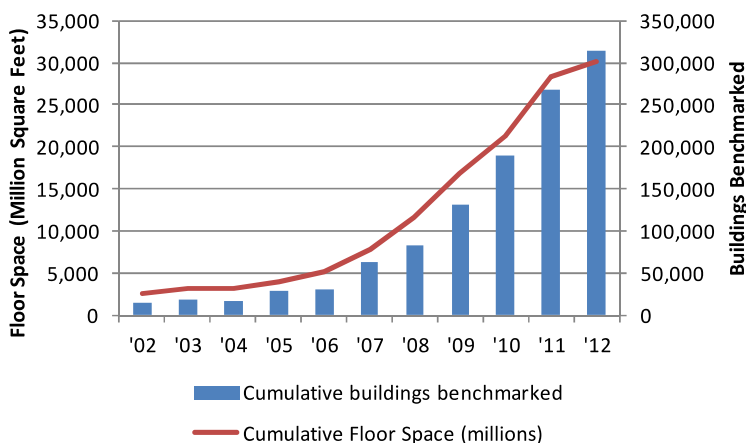


Figure 1. More than 300,000 buildings have been benchmarked in Portfolio Manager, and the number is steadily growing²

Utilities Benefit by Supporting Benchmarking

By making it easy for customers to benchmark, Portfolio Manager web services can help utilities in the following ways:

- Improve customer service by providing a time-saving service that helps customers reduce energy costs
- Help drive peak demand reductions and enable utility programs to achieve greater energy efficiency results per dollar, increasing the cost-effectiveness of portfolios
- Analyze the effectiveness of energy efficiency programs and verify energy savings
- Reduce labor costs related to manually providing energy usage data to customers

The National Association of Regulatory Utility Commissioners³ and the National Association of State Utility Consumer Advocates⁴ have both recognized the benefits of benchmarking and called for utilities and regulators to develop comprehensive benchmarking policies and improve access to whole-building energy consumption data for building owners.

Benchmarking Yields Energy Savings

Benchmarking helps owners and managers track building performance over time, prioritize investment priorities, and justify and evaluate energy efficiency improvements. Recent studies have shown that it leads to energy savings:

- EPA has analyzed the energy performance of more than 36,000 buildings that received ENERGY STAR performance scores in 2008 through 2011. Buildings attained average annual energy savings of 2.4 percent, as shown in Figure 2.
- A Building Operating Management survey of hundreds of facility managers who used Portfolio Manager found that

¹ <http://www.energystar.gov/buildings/service-providers/service-and-product-providers/use-web-services-exchange-data-portfolio-manager>

² <http://www.energystar.gov/buildings/tools-and-resources/snapshot-spring-2013>

³ <http://www.naruc.org/Resolutions/Resolution%20on%20Access%20to%20Whole-Building%20Energy%20Data%20and%20automated%20Benchmarking.pdf>

⁴ <http://www.nasuca.org/archive/CP%20Resolution%202013-5.doc>

70 percent have used ENERGY STAR to guide energy efficiency upgrade plans and 67 percent have used ENERGY STAR to help justify an energy efficiency project.⁵

A FirstFuel analysis of medium- and large-scale commercial buildings concluded that half of all energy efficiency savings can be achieved through operational improvements at little or no cost to building owners.⁶ While benchmarking on its own does not identify specific energy efficiency improvements, it can justify and track savings and is the foundation for a comprehensive and strategic energy management plan.

Case Studies

Utilities have benefitted from benchmarking in California and Massachusetts:

- Utilities in New England, including National Grid, New England Gas Company, and NSTAR Electric and Gas, collaborated with the Low Income Energy Affordability Network and WegoWise to benchmark low-income multifamily buildings across Massachusetts to pursue energy efficiency improvements in the worst energy performers. Benchmarking allowed the utilities to avoid almost \$2.5 million in audit costs while prioritizing projects and identifying opportunities for savings.⁷
- A 2012 report for the California Public Utility Commission demonstrated that benchmarking can be a gateway for customers to other energy efficiency programs. A survey of participants and non-participants of the California investor-owned utilities' (IOUs) benchmarking workshops found that, of those who benchmarked their buildings, 62 percent took energy management actions, such as monitoring of controls and thermostats; 84 percent planned or implemented improvements to benchmarked buildings; and 81 percent link improvements to utility energy efficiency programs.⁸

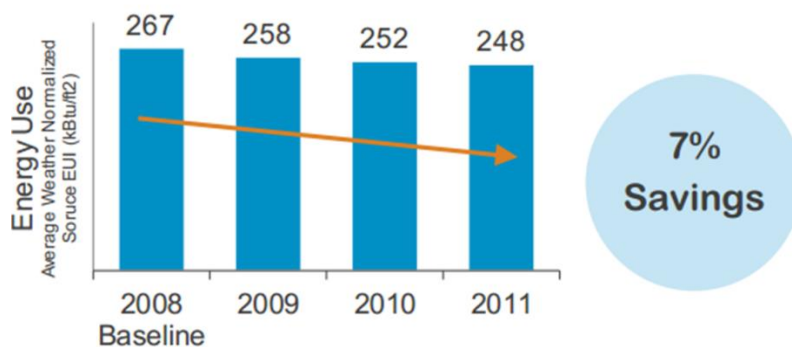


Figure 2. Energy Savings in Portfolio Manager⁹

What Utilities Already Support Benchmarking?

Many utilities are already using Portfolio Manager web services or otherwise providing whole-building utility data to building owners, including:

- Austin Energy, Avista Utilities, Commonwealth Edison, ConEdison, NYC Department of Environmental Protection, Los Angeles Department of Water and Power, National Grid, Pacific Gas & Electric, PECO, Pepco Holdings, Puget Sound Energy, Sacramento Municipal Utility District, San Diego Gas & Electric, Seattle City Light, Seattle Steam, Southern California Edison, Southern California Gas Company, Veolia Energy

More Resources

- IMT's benchmarking [infographic](#).¹⁰
- IMT/Energy Efficient Building Hub's [Utilities' Guide to Data Access for Building Benchmarking](#).¹¹
- State and Local Energy Efficiency Action Network's [A Utility Regulator's Guide to Data Access for Commercial Building Energy Performance Benchmarking](#).¹²

About the Data Access and Transparency Alliance (DATA)

DATA is a collaborative effort led by the commercial real estate industry and green building organizations to provide building operators with energy consumption data to advance energy efficiency and energy cost savings in buildings. For more information, please see www.energydataalliance.org

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⁵ Lindsay Audin. "Careful Assessment of Energy Options Can Show What Steps to Take." Building Operations Management, December 2011.

<http://www.facilitiesnet.com/powercommunication/article/Careful-Assessment-of-Energy-Options-Can-Show-What-Steps-to-Take--12849>.

⁶ FirstFuel. "The Hidden Opportunity in Commercial Energy Efficiency." February 6, 2013. <http://firstfuel.com/>.

⁷ <http://www.aceee.org/files/pdf/conferences/eeer/2013/6D-Teague.pdf>

⁸ NMR Group. *Statewide Benchmarking Process Report*. Submitted to California Public Utilities Commission. April 2012.

⁹ Environmental Protection Agency. "Benchmarking and Energy Savings."

http://www.energystar.gov/ia/business/downloads/datatrends/DataTrends_Savings_20121002.pdf?3d9b-91a5.

¹⁰ <http://www.imt.org/policy/building-energy-performance-policy/infographic>

¹¹ http://www.eebhub.org/media/files/IMT_Report_-_Utilities_Guide_-_March_2013.pdf

¹² http://www1.eere.energy.gov/seeaction/pdfs/commercialbuildings_data_access_guide.pdf