

## Energy Benchmarking and Disclosure – An Overview of Recent Benefit Studies

EPA has analyzed the energy performance of more than 36,000 buildings that input their complete energy performance data into Portfolio Manager and received Energy Star performance scores (any score on the 1 to 100 point scale) in the years 2008 through 2011. Over this period, the buildings in the study attained average annual energy savings of 2.4 percent. The study also found that buildings that started with lower Energy Star scores and higher energy use made the largest gains, with those scoring below 50 in 2008 making improvements that saved them twice as much energy over the three-year period as buildings that started with above average scores. **Environmental Protection Agency. “Benchmarking and Energy Savings.”**

[http://www.energystar.gov/ia/business/downloads/datatrends/DataTrends\\_Savings\\_20121002.pdf?3d9b-91a5](http://www.energystar.gov/ia/business/downloads/datatrends/DataTrends_Savings_20121002.pdf?3d9b-91a5).

A Building Operating Management survey of hundreds of facility managers who used Portfolio Manager found that 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. **Lindsay Audin, “Careful Assessment of Energy Options Can Show What Steps to Take,” Building Operations Management,**

<http://www.facilitiesnet.com/powercommunication/article/Careful-Assessment-of-Energy-Options-Can-Show-What-Steps-to-Take--12849>, December 2011.

In Australia, many buildings monitor their performance using NABERS Energy, a rating tool that is similar in scope to Portfolio Manager, and can be used to measure the energy performance of a tenancy, base building, or whole building. Buildings that regularly track their energy performance using NABERS have reported an average improvement in energy efficiency of 9 percent, or 2 kWh/ft<sup>2</sup>, as of 2011. **NABERS, “Research and Statistics.”**

[<http://www.nabers.gov.au/public/WebPages/ContentStandard.aspx?module=10&template=3&include=ResearchStats.htm&side=factsheets.htm>].

A 2011 Lawrence Berkeley National Laboratory analysis of existing commercial buildings that underwent commissioning determined that commissioning revealed energy-related deficiencies that, when corrected, resulted in 16 percent median whole-building savings with payback times of 1.1 years. While benchmarking alone does not identify specific energy efficiency opportunities, a low benchmarking score can indicate the need for commissioning and other operational improvements. **Evan Mills, “Building Commissioning: a golden opportunity for reducing energy costs and greenhouse gas emissions in the United States,” Energy Efficiency Volume 4, Number 2, May 2011.**

A 2012 report by the NMR Group for the California Public Utilities Commission (CPUC) concluded that utility-led benchmarking programs, which included Automated Benchmarking Services (ABS) and providing support for ABS as well as benchmarking workshops, yielded substantial and measurable energy savings. 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. Survey responses also indicated that benchmarking motivates more comprehensive retrofits: 90 percent of participants agreed with the statement “you implement more comprehensive energy efficiency measures in the buildings you benchmark.” **NMR Group. Statewide Benchmarking Process Report. Submitted to California Public Utilities Commission. April 2012.**