

# Realizing the Energy Efficiency Potential of Small Buildings: Saving Energy, Money and Jobs

A new report produced by the Preservation Green Lab shows that small commercial buildings hold enormous potential for energy savings worth more than \$30 billion annually.



The June 2013 report, *Realizing the Energy Efficiency Potential of Small Buildings*, finds that an array of energy savings in small commercial buildings could profitably yield more than one quadrillion Btu annually, which translates into more than \$30 billion in annual cost savings and improved financial performance. While efforts to conserve energy commonly focus on larger structures, the reality is that 95 percent of all commercial buildings are less than 50,000 square feet, representing a massive and largely untapped opportunity for new energy savings.

Summarizing three years of PGL research into the energy performance of small commercial buildings, the study was developed in support of the U.S. Department of Energy's national roadmap for energy efficiency in The Small Buildings and Small Portfolio (SBSP) sector. The report defines elements and recommends key actions needed to realize energy savings across seven million business establishments operating in 4.4 million small buildings nationally.

Key research findings include:

- Small buildings are responsible for 47 percent of the energy consumed by commercial buildings overall.
- Small businesses or firms with fewer than 500 employees own 84 percent (3.7 million of 4.4 million total) of small buildings.
- Potential energy savings in small buildings range from 27 to 59 percent, depending on the building type. This represents 1.07 quadrillion Btu annually or 17 percent of commercial energy use.
- Small, neighborhood businesses such as restaurants, grocers and retailers can improve profitability by more than 10 percent through smart investments in energy savings.



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The research and analysis presented in this report show a tremendous opportunity to reduce energy consumption in small commercial buildings nationwide.

The report includes several recommendations for policy makers, utilities and developers among them:

- **Identify Waste and Measure Results:** To realize the full energy saving potential of small buildings, energy policy makers must support solutions that measure, motivate and monetize real energy performance.
- **Plan for Improvement:** To optimize energy efficiency in small buildings, investors must align the timing of energy saving improvements with natural opportunities in the life cycle of a building
- **Encourage Innovative New Business Models:** Utilities and local energy regulators must collaborate with industry champions in pilot projects, demonstrating how new technologies can more easily and cost effectively reach small businesses in different types of buildings.

The report was produced by the PGL in partnership with the New Buildings Institute, a nonprofit that works collaboratively with commercial building interests to remove barriers to energy efficiency. It was funded jointly by The National Renewable Energy Laboratory and the U.S. Department of Energy.

The market analysis and characterization of the small building sector and many of the recommendations presented in the report are based on research and analysis that were conducted by PGL between 2009 and 2012. They were funded by the Kresge Foundation, Doris Duke Charitable Trust, Bullitt Foundation, Boeing Corporation, City of Seattle, and numerous other supporters.

## ABOUT THE PRESERVATION GREEN LAB

The Preservation Green Lab is a sustainability think tank and national leader in efforts to advance the reuse and retrofit of older and historic buildings. A project of the National Trust for Historic Preservation ([www.preservationnation.org](http://www.preservationnation.org)), the Green Lab was launched in 2009 and is based in Seattle, Washington.

A REPORT BY:



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