



EDF Confirms Big Savings from Shorenstein’s Corporate Energy Efficiency Program



Introduction

After completing a national corporate energy efficiency property tour (Energy Savings Tour) in 2010, Shorenstein Properties wanted independent verification of the initiative’s actual savings and environmental impact.

Through its Climate Corps program, Environmental Defense Fund (EDF) has confirmed impressive results. With annual cost savings of \$1.7 million and return on investment exceeding 100 percent, the Shorenstein Energy Savings Tour serves as a model program for companies seeking to boost the bottom line and improve environmental performance.

In addition to generating impressive cost reductions for Shorenstein and its tenants, the Energy Savings Tour uncovered even bigger future savings opportunities from energy efficiency.

The company is pursuing several strategies to overcome barriers to energy efficiency and enable deeper cuts to energy consumption.

Shorenstein’s Energy Efficiency Results

Metric	Result
Energy Results	
Annual Energy Savings	12.3 million KWh
Percent Energy Savings	5.1%
Average Demand Savings	1,400 KW
Environmental Results	
Annual CO ₂ Emissions Reduction	4,800 metric tons
Financial Results	
Annual Cost Savings	\$1.7 million
Total Program and Retrofit Cost	\$800,000
Payback Period	6 months
3-Year Savings NPV	\$3.4 million



Shorenstein Corporate Energy Efficiency Program

Energy efficiency has long been a core property management objective for Shorenstein, a national commercial real estate owner and manager. The company's G.R.E.E.N. Committee oversees corporate sustainability and develops, manages, and measures environmental performance. The Energy Savings Tour emerged from the Committee as an ongoing internal program for identifying energy-saving projects. The first program cycle has resulted in environmental savings equivalent to taking 1,130 homes off the electric grid and 940 cars off the road.

Shorenstein's return on investment in energy efficiency exceeded 100 percent.

Shorenstein's energy management team spent four months identifying energy efficiency opportunities at 33 of the company's managed properties. From March to June 2010,

Shorenstein's Energy Directors met with energy advisors, energy managers, and property managers during one, two, or three days of building tours in each market. In total, the team identified 305 discrete energy efficiency projects. They found savings in nearly every building system category – from lighting and HVAC to elevators, pumps, and other mechanical equipment.

Once identified, all potential projects underwent review by property, group and asset managers to determine likelihood of implementation based on factors such as cost, investment position and payback period. Over 67 percent of all identified projects were completed. Projects not yet implemented have high energy savings potential but are capital-intensive with various feasibility challenges, including hold strategy and payback barriers.

Program Evaluation by EDF Climate Corps

Shorenstein engaged EDF Climate Corps for independent evaluation and verification of program impacts. Jaxon Love, a 2011 EDF Climate Corps fellow, used multiple regression and IPMVP¹ whole facility analysis techniques to independently evaluate the program. Love adapted methodology used for verification of utility-scale energy efficiency programs and worked with experts at the Environmental Defense Fund to confirm evaluation techniques.

Shorenstein's Energy Efficiency Impact:

- *1,130 homes off the grid*
- *940 cars off the road*

¹ International Performance Measurement and Verification Protocol



Overall, the program reduced energy consumption by 5.1 percent across the entire commercial building portfolio, exceeding the G.R.E.E.N. Committee’s goal of 3.5 percent energy savings. The evaluation confirmed \$1.7 million and 12.3 million kilowatt hours saved annually as well as 4,800 metric tons of annual CO₂ emissions avoided. “The EDF Climate Corps fellow, Jaxon Love, provided great value to the Energy Savings Tour through independent quantitative validation of the implemented measures,” said Bill Young, Manager of Engineering Services for Shorenstein. “Justification of the conservation measures will help ensure durability through confidence in the effectiveness of those measures.”

The financial outcome of Shorenstein’s energy efficiency program demonstrates a compelling business case for energy efficiency investment. Expenses for program design, implementation and evaluation totaled \$800,000, including equipment, labor, and administration. The resulting \$1.7 million annual savings yielded a simple payback period of less than six months and a return on investment of 110%. Given the current economy, such high returns suggest more companies should seriously consider energy efficiency as a strategic business investment.

“The greatest savings often come from improving operational procedures and minimizing waste.”

– Bill Young, Shorenstein Engineering Services Manager

The EDF Climate Corps program places specially-trained MBA and MPA students in companies, cities and universities to build the business case for energy efficiency. Since 2008, EDF Climate Corps fellows have identified energy efficiency opportunities that could save \$1 billion in net operating costs and avoid 1 million metric tons of CO₂ emissions for the organizations involved. Shorenstein has been an EDF Climate Corps participant since 2009, with impressive results for the company and its tenants.

Unlocking Deeper Energy Savings

Now Shorenstein is seeking even bigger energy and environmental savings. Lisa Mize, Senior Vice President and Director of Shorenstein’s G.R.E.E.N. Committee, stresses that a key to sustainability in commercial real estate is collaboration between owners and tenants. “As a responsible landlord, it is our duty to help educate tenants about the importance of conservation and provide them with strategies to enhance the sustainability of the buildings in which they work” Mize said.



Shorenstein is pursuing several strategies for unlocking deep savings:

- **Partnering with Tenants:** In commercial offices, tenant behavior determines up to 80 percent of a building’s energy use. Shorenstein launched the “Flip the Switch” tenant engagement program in fall 2011 to catalyze tenant action on energy efficiency and environmental performance. The program combined an educational presentation series with a customized sustainability resources website for tenants. Building occupants now have landlord-provided resources and support for developing or enhancing energy and environmental programs within their organizations.
- **Green Leasing:** Moving forward, Shorenstein is “greening” its lease portfolio by writing sustainability provisions directly into its lease agreements with tenants. The company’s asset managers, equipped with a “Green Lease Reference Guide”, are being trained on how to incorporate contract provisions targeting building performance, energy and water use, transportation, recycling, maintenance, and green construction.
- **Submetering:** Beginning this year, submeters will be installed for all new and renewing Shorenstein tenants. The policy is designed to address the fact that in many markets, tenants do not pay directly for their energy consumption. Submetering gives tenants more control over their energy costs and providing a financial incentive for occupant action on energy efficiency.

“Shorenstein’s tenant engagement strategies provide building occupants with the information, tools, and incentives to become sustainability leaders in their own office space.”

– Lisa Mize, Shorenstein Senior Vice President

Shorenstein’s corporate energy efficiency program provides an innovative example of how companies are cashing in on sustainability strategies with positive economic and environmental impact.