

Building a Business Case for Energy Efficiency

Facilities staff at an HSBC bank branch in Burnaby had a bright idea. They identified the need to improve the work environment for the company's employees and to reduce energy consumption in their building. To start the process, HSBC called their BC Hydro representative to help carry out an energy study to determine the best ways to improve lighting and air quality while reducing energy use. The solutions: replace four HVAC units and upgrade lighting in 24,000 square feet of office space. The next step was to prepare a budget that included the potential energy savings and identified potential funding incentives from BC Hydro to assist with project implementation. Facilities staff prepared a business case for executive approval.

"The decision to proceed was based on our desire to improve the quality of the work environment for our employees while maximizing energy savings," says Peter Ward, HSBC's Assistant Vice President for Real Estate Services. "Plus these initiatives support our commitment to environmental sustainability." HSBC staff knew that persuading senior management wasn't a simple matter of figures. They knew they had to build a solid business case that clearly showed the costs and all the benefits of the proposed work. And it worked. Here's a four-step plan on how you can build your case for energy efficiency projects.

1. Adopt an "energy attitude."

Energy consumption isn't always top-of-mind for most building managers. After all, energy typically accounts for only three to five per cent of a building's total operating costs. But while many costs, such as mortgages and insurance, are fixed, energy is not. When you put aside the fixed costs and consider just the variable costs,

energy becomes a larger and more significant factor. So it pays to keep energy in mind when you're thinking about how to improve your building's financial performance.

2. Identify energy efficiency opportunities.

Once you adopt an energy mindset, you're in a better position to spot potential energy-saving projects. How those opportunities are identified, and who does it, varies from company to company. It may be the property manager or owner, operations or maintenance personnel, or a contractor or supplier. Some companies set up a cross-departmental team that meets regularly to brainstorm ideas.

The impetus for making improvements varies as well. Tenants may be concerned about lighting levels or the comfort of their premises.

Maintenance staff may be wasting time and money servicing inefficient equipment. For many organizations, budget cutbacks are forcing the need to reduce operating costs.

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The key is to be on the lookout for opportunities. Will you soon be replacing aging equipment? Consider upgrading to more energy-efficient models. Are you planning building renovations? That's an excellent time to incorporate energy-efficiency measures and upgrades.

3. Analyze the costs and benefits.

Once you come up with a list of potential energy-saving actions, the next step is to evaluate the costs and benefits of each in order to choose the most cost-effective and beneficial ones. This may be as simple as getting a quote from your contractor or supplier, or may involve hiring a consultant to do a detailed energy audit.

Owners and property managers often focus mainly on the initial cost when analyzing the cost of energy efficiency improvements. More cost-conscious managers look at the life-cycle cost. This approach includes an analysis of the maintenance and energy costs throughout the life of the equipment in addition to the capital costs. When life-cycle costs are taken into account, it is often more cost effective to make a higher initial investment because the overall operating costs will be lower.

The example below shows the life-cycle costs for a lighting retrofit of a commercial office floor to more energy-efficient lamps, reflectors and ballasts. The efficient lighting not only saves energy but also lasts longer, allows a reduction in the number of fixtures, and reduces annual maintenance costs.

Lighting system	Existing	Proposed
Installation cost (parts + labour)	N/A	\$4,400
Energy consumption (kwh/year)	34,992	12,744
Energy cost (@ \$0.06/kwh)	\$1925	\$700
Energy savings (kwh/ year)	N/A	22,248
Energy cost savings (\$/year)	N/A	\$1225
Simple payback (years)	N/A	3.2
Maintenance savings (\$/year)	N/A	\$150
Return on investment	N/A	31%

4. Look at all the benefits.

For most energy efficiency projects, the major impetus is saving money on energy bills. But efficiency measures often bring other benefits that may be just as significant, such as improved worker productivity, improved tenant attraction and retention because of added occupant comfort, increased marketability, reduced maintenance costs, and environmental benefits. Finally, when developing your business case, don't forget intangibles like enhancing your corporate image among customers and suppliers, and building loyalty among employees.

Power Smart Partner Program: incentive to invest

Incentives may be available for energy efficiency projects. Under BC Hydro's Power Smart Partner Program, our representatives work with business customers to find energy efficiency solutions. These Power Smart Partners are eligible to apply for incentives through a competitive process that funds the most cost effective proposals. Incentive funding can shorten payback periods for energy efficiency projects.

Sears Canada is a case in point. As a BC Hydro Power Smart Partner, Sears has committed to reducing total energy consumption in B.C. by 5 per cent, using its current annual consumption as

a benchmark. One way Sears is keeping that pledge is through energy-efficient lighting retrofits, including a project at a large warehouse in Burnaby. In fact, Sears has applied for a BC Hydro Power Smart Partner incentive to help the project along.

"Senior management is ready and willing to approve energy-efficient measures as long as they meet a typical three-year payback and fall within annual budgets," says Tom Campbell, National Manager of Facilities. "Incentives like BC Hydro's Power Smart Partner program help us keep our environmental commitment by making energy efficiency a cost-effective part of doing business."

Contact Us

For more information on the Power Smart Partner program, please contact your BC Hydro representative or call **604 453-6400** in the Lower Mainland, **1 866 453-6400** elsewhere.

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