

# Operations

Any effort to reduce your business footprint will involve a close look at mechanical systems and operations—the "nuts and bolts" realm of heating, cooling, power, ventilation and waste handling. Before you plunge in and start making changes, it helps to know your current situation. Here's how to establish a baseline and how to take easy first steps to improving it. For more detailed information on any of these strategies, check out the other sections of this toolkit.

## Quick Start



Do you currently track how much power and water your business uses, which products you buy or how much waste your enterprise creates? If not, start now: use a binder to keep copies of all bills for electricity, purchasing, waste, gas and any other consumption-based expenses. Review this binder monthly as new bills come in to track progress and monitor consumption. Once you have a baseline, start looking for efficiencies. Share your progress with employees so they understand how their actions help make a difference.

## You've Got The Power

Are you a high-energy person? That's great when it comes to fitness and getting things done, but less ideal when it comes to your operations. Check out the [Energy](#) section of this toolkit for tips on how to reduce consumption and save money.

- ◆ Obtain a summary of your energy usage from the "account history" section on your utility provider's website. Look for trends in consumption.
- ◆ Could you supplement your electrical needs with small-scale, renewable energies, such as pre-heating your hot water with a solar thermal panel? Could you purchase renewable energy certificates?

### Try This!

Do a Web search for "renewable energy certificates" or "green power" to find how to purchase from sustainable energy providers. These providers are growing more popular every day.

- ◆ Examine the type and quantity of your lighting, and review the efficiency of your appliances and equipment. Consider replacing fixtures with efficient options, and upgrading inefficient appliances such as refrigerators.
- ◆ Are computers and imaging equipment set to sleep when they are not being used? Do you flip off power strips at the end of the day?

## Take the Temperature

- ◆ Check for drafts and gaps in insulation, and around doors and windows.
- ◆ Are window blinds kept closed during the heat of the day? Keep the sun out and you'll use the air-conditioning less.
- ◆ How efficient is your furnace? If the unit is over 15 years old, consider investing in a high-efficiency model to save you money and reduce your emissions.
- ◆ If you don't already regulate your temperature with a programmable thermostat, have one installed as soon as possible. These fairly inexpensive devices can make a big impact on your utility costs.

## Trash Your Old Ways

- ◆ Give a second thought to your garbage. Add up the number of bags that are being carted off. Are there opportunities to slim down and save some money? Keep track of how many bags of garbage you throw out per week. Set a target and work towards it.
- ◆ Ask yourself how much of your trash could be diverted through recycling or composting.
- ◆ If you conclude that a lot of your waste is connected to purchasing decisions, it may be time to re-evaluate and order less.

## Procure With Care

- ◆ Sit down with your list of inventoried supplies. Assess the full lifecycle of each product by answering the following questions:
  - ◆ Origin: How far has the product travelled? Is it manufactured or distributed locally?
  - ◆ Content: Is it made from synthetic or natural materials? Is it built with new or reclaimed resources?
  - ◆ Use: How will it be used? Does it have multiple uses? Can it be reused?
  - ◆ Disposal: Can it be recycled? Will it break down? Can it be donated elsewhere?
- ◆ Consider the food items used for meetings, staff lunches or in restaurants. Is the food grown locally or has it travelled from overseas? Is it provided by independent businesses, including social enterprises and co-operatives?

## Down The Drain

- ◆ What does your water meter tell you? Examine consumption levels over the years. Set a target and work towards meeting it.
- ◆ How many litres per flush? Have toilet dams been installed? Could you replace old toilets with new low-water versions or dual-flush models?
- ◆ Investigate leaking taps and toilets. Fixing drips pays off immediately. Just one faucet dripping once per second wastes over 21 L per day. That's over 7,600 L per year!
- ◆ Could "grey water" from sinks and bathtubs be collected and reused for plants, landscaping or toilet water? Regulations vary; investigate the legalities of using grey water in your area.

## Breathe Easy

- ◆ Paint and sealants can emit volatile organic compounds (VOCs) as they dry and cure, which negatively impacts local air quality and can also trigger an asthma attack in chemically sensitive individuals. The next time you have your walls touched up, specify a low-VOC brand.
- ◆ Medium-density fibreboard—a common furnishing material—can off-gas harmful chemicals such as formaldehyde. Look for solid-wood furniture finished with low-VOC varnish or paint. Better still, look for furniture made with Forest Stewardship Council (FSC)-certified material.
- ◆ If you are considering a renovation, surfaces such as tile, hardwood and polished concrete are better for indoor air quality than carpets and rugs, which can trap allergens.
- ◆ If windows are dressed up with upholstery, they can be a source of dust. The same is true of blinds. Whatever your treatment, ensure they are regularly taken down and cleaned.
- ◆ Ensure the ventilation system in your building is checked and maintained seasonally.

- ◆ Determine what cleaning products are used onsite. Bleach and ammonia are toxic, while fragrances and other common additives can create issues for individuals with chemical sensitivities.

## Beyond the Walls

- ◆ Have you considered drainage in your design? What about tree shading for building heating/cooling purposes?
- ◆ Are chemical pesticides used in landscaping? Could pest-deterring plants be placed strategically throughout the grounds?
- ◆ How much of your landscape is concrete? Grass? Groundcover? Native plants and shrubs?
- ◆ Do you collect rainwater or grey water for irrigation?

## The Human Dimension

- ◆ Do you collaborate with local community organizations?
- ◆ Can you source more of your staff members and subcontractors closer to the workplace? Do you offer internships or skill-building opportunities?
- ◆ What percentage of your purchases support local businesses?
- ◆ Do you encourage or provide opportunities for staff to volunteer in the community?
- ◆ Is money reinvested in community-building ventures? Are funds donated to charities?

## Scenario: Things Are Looking Up For Fenelon Falls

For more than a decade, Fenelon Falls Interpretive Centre has offered living history and nature programs to those visiting Ontario's popular Kawartha Lakes region. In an effort to make a fresh commitment to sustainability, an in-house team of staff and volunteers launches an audit of the non-profit's operations.

After examining the power bills, the audit team discovers that the building is consuming an ever-increasing amount of energy. The team notes that the lights in the centre are older fluorescent and incandescent types. They decide to gradually replace these with Energy Star-qualified bulbs. The team then takes an after-hours stroll through the centre's offices and finds many computers and lights left on overnight. At a subsequent staff meeting, team members remind their colleagues to "flick the switch" at the end of each day.

The team commits to lowering the centre's energy bill by 10% within a year. It decides to track energy consumption on a monthly basis, and identify other measures that could reach that goal.

The audit team next consults the building's natural-gas bills. One of the team members mentions that the back half of the building always feels chilly in winter regardless of where she sets the thermostat. Upon investigation, the team discovers old and drafty windows and doors in that wing of the building. With a limited initial budget, the team reframes, replaces, and puts weatherstrips around the door frame, but does not yet have the funds to replace the windows. As a temporary solution, the team re-caulks the drafty windows. The team also opts to install a programmable thermostat.

The team sets another target to reduce the gas bill by 10% in one year. It earmarks the saved funds for new, triple-glazed windows and, eventually, a high-efficiency furnace.

Next up: The centre's dumpsters. One team member offers to monitor how many trash bags per week go out to the curb, and what's inside them. She soon finds that many of the centre's visitors toss their drink bottles and cans into the garbage. The team immediately places more recycling containers in highly visible and well-trafficked locations. Waste bills drop immediately.

The team then takes stock of the centre's sky-high summer water bills, and find that the trail leads straight outside the building to the landscaping, which requires almost daily irrigation. As a first step, it stops watering in the afternoon and switches to an early-morning irrigation schedule. It also replaces sprinklers with a drip irrigation system and invests in barrels to harvest rainwater from downspouts. As the team continues monitoring the water bills, it notices an immediate cost savings from these measures.

Next, the group looks for opportunities to save water inside the building. After speaking with the maintenance supervisor, it finds that all of the toilets use more than 10 L of water per flush. It elects to replace the fixtures with new low-flow models. The investment pays back quickly. Now the team is looking to use the money saved to underwrite further upgrades.

The team already feels its centre has a significant and positive impact on the local community and economy, as all employees and volunteers live in nearby communities. The facility also offers many free education days. Since the local social impact is already quite strong, the team focuses on global changes. It decides to use the Web to share its expertise in delivering authentic and interactive programming with other similar interpretive centres in other countries. Over time, the society begins developing relationships with similar operations, contributing to the larger sustainability community.