

SUSTAINABILITY FOR YOUR ORGANIZATION

A Practical Guide



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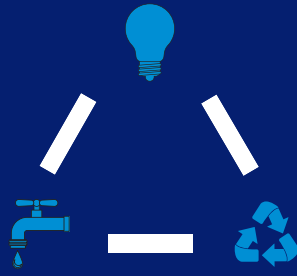
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HOW BEING MORE SUSTAINABLE CAN HELP YOUR ORGANIZATION



Save money

By reducing energy and water usage, you can save money that can then be invested in growing your business



Attract Customers

Consumers are more likely to choose a company that implements environmental best practices



Attract top talent

Young professionals are more likely to work for companies that are socially responsible

WHO IS ENVIRONMENT LETHBRIDGE?

Environment Lethbridge was founded in 2012 by a group of concerned citizens and business owners who wanted to see Lethbridge take action to become more environmentally sustainable.

Our Mission

Environment Lethbridge inspires and equips people to create widespread community action and engagement towards sustainability.

Our Vision

Lethbridge is a sustainable community and all residents are actively engaged in contributing to its sustainability

If you are interested in how your business can operate more sustainably, visit our website to learn more, and log points to achieve your Sustainable Business Certification!

<https://environmentlethbridge.ca/smallbiz/>

WHERE TO START

Set Up A Green Team

Put together a green team (this could be anywhere from one person to a formal committee) led by someone who is passionate about sustainability and can help the rest of the team stay on track.

Designate regular meeting intervals (weekly, monthly, quarterly) for the team to discuss and evaluate the success of the program and make adjustments as needed.

Analyze

Take a look at your current practices, infrastructure, buildings, etc. and identify some areas that could be improved on. Perform a walk-through audit of your space. If you have the budget, you could get a professional energy audit or building recommissioning done.

Set Goals

Set goals for improvements that can be made in the short, medium, and long-term. Make sure they are **SMART**:

Specific
Measurable
Achievable
Relevant
Timely

Keep in mind, there are many changes that have minimal or zero cost. These kinds of changes can be completed in the short-term and can help motivate everyone to achieve more ambitious goals.

ENERGY EFFICIENCY

Lights

Turning off the lights in unoccupied areas, and taking advantage of natural light instead of turning lights on are easy and free ways to save energy. Occupancy or motion sensors can be helpful in areas that need to be lit when someone is present but not all the time.

Replacing inefficient lights with LED is one of the most cost-effective ways to increase energy efficiency and save on energy bills.

Occupancy or motion sensors, timers and photocells on lights can help save a significant amount of energy, especially in public areas or outdoors.

Electronics

When replacing electronics and appliances, look for Energy Star models.

Laptop computers use, on average, between 1/4 to 1/3 less energy than desktops. Using energy saving settings can also save you as much as \$32.00 per computer per year.

Most electronics use power even when they are turned off, even power cords that are not plugged into the device. This is known as phantom power. Each device doesn't use much, but if there are lots of devices, it can really add up.

Use power bars for all electronics and switch them off at night to prevent phantom power draw. In areas where the power bar is hard to get to, or if you want a more automated setup, smart power bars that turn themselves off could be a worthwhile investment. There are several different kinds; they can be programmed on a timer, controlled by an app through wifi or be tied to a main device: for example when the computer is turned off, power would be cut to everything else that is connected to the same power bar. Most have at least one outlet that is always on.

BUILDING

Passive Solar

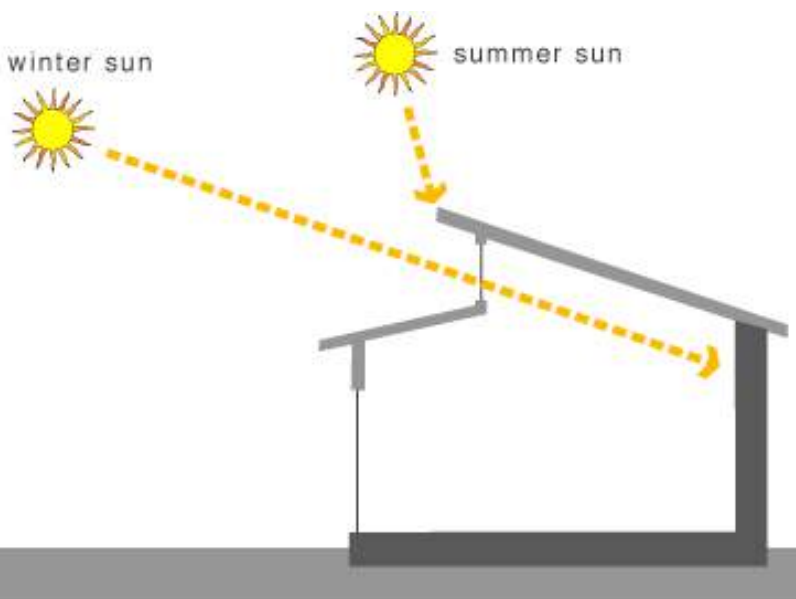
Including passive solar design for new building construction can significantly reduce heating and cooling costs. If you don't have the luxury of building a new building, there are aspects of passive solar that can be applied to existing buildings.

Use window coverings to shade out the sun during the summer. Open the window coverings during the day in winter to let the sunshine in, then close them at night to trap the heat.

Roll out awnings in the summer to shade the sun, and roll them back in the winter to let more sun in.

Plant vines or deciduous plants on the south side of your building. Not only do they add aesthetic value, they also will shade the wall and/or roof in the summer.

Install a green roof to add extra insulation. This can have the added benefit of providing food and shelter to insects and birds, and could even produce food for humans!





Building Envelope

The most cost-effective change to the building envelope is sealing up drafts.

Check caulking around windows and doors, and exterior cladding, and replace if it is missing or starting to crack.

Inspect weatherstripping and door sweeps for damage or wear. These can easily and inexpensively be replaced to make a big difference on the heating and cooling bill.

Check the insulation where possible, and ensure the R-value meets or exceeds building codes.



Windows

More efficient windows can make a big difference in energy use, as well as comfort, but can be very expensive. It will take many years for new windows to pay themselves off if only taking energy cost into account. For a less expensive fix, use light blocking shades or a reflective, tinted film, and insulated curtains for winter nights.

For single pane, low efficiency windows, it can be more cost effective to add another pane to increase efficiency rather than changing the window out completely.

If you are planning to install new windows, look for high-efficiency, low-e windows, and if the frames are metal, make sure they are thermally broken. Triple pane windows are much more efficient but often prohibitively expensive.

HEATING & COOLING

HVAC system

After the drafts are sealed, the HVAC (Heating, Ventilation and Air Conditioning) system use can be optimized. Turning down the furnace (16°C when unoccupied, 20°C when occupied) and restricting A/C (Minimum 35°C when unoccupied, and minimum 26°C when occupied) can save a lot of money per month while still maintaining comfort levels. Using fans in addition to A/C will help make it feel cooler while not using as much energy as lowering the A/C.

Installing a programmable or smart thermostat will allow you to automate temperature adjustment and save on energy bills. Smart thermostats “learn” when the area is in use and adjust automatically, or can be programmed from your smartphone. Both options have the ability to heat up or cool down your premises prior to your arrival in the morning and take very little effort to program or maintain.

Another easy, free option, is to reverse ceiling fans in the winter so they push warm air downward. Avoid portable space heaters when possible. Window or portable A/C units are less efficient than central A/C units if cooling the whole building, but are a much better option if only certain areas need cooling.

Regular maintenance can improve efficiency and extend the life of the system. Changing the filter regularly is often overlooked but makes a big difference to efficiency. Consult the user guide of the system or ask your installer to find out how often your filter should be changed or cleaned.

Shading outdoor components of air conditioners, as well as surrounding wall and ground can significantly reduce the amount of energy needed for the air conditioner to work properly, and will extend the life of the system.

Replacing an HVAC system is expensive, but newer models are much more efficient than older models. If you are planning to change out the HVAC system, make sure drafts are sealed and any window, door, and insulation upgrades are done first, as this could significantly reduce the required system size.

APPLIANCES

Water Heater

On-demand water heaters are much more efficient than tank heaters, especially if usage is low. Be sure to add a circulation pump if there are taps more than 100 feet from the water heater to avoid waiting a long time for water to get hot.

Some older hot water tanks are not well insulated. Adding a hot water tank blanket to the outside of the tank can save you 25-45% on water heater energy costs. There is also heat lost from the hot water pipe where it exits the tank. Insulating at least the first 4 feet of pipe can save energy costs and increase the water temperature, allowing the temperature to be turned down on the tank. The optimal temperature for a hot water tank is 60°C-65°C or 50°C for tankless.

A solar water heater is another way to reduce costs and emissions.



RENEWABLE ENERGY

Green Energy Providers

There are several options for using renewable energy at the workplace. You can start by paying to offset your energy use. It can be any percentage you decide. There are several companies locally that can provide renewable energy, including: Bullfrog Power, ACE Alberta Cooperative Power, Direct Energy, Atco, Just Energy, Epcor, and Enmax.

Community-Based Renewable Energy

Another option for supporting renewable energy would be to invest in community-based renewable energy projects, such as The Southern Alberta Renewable Energy Co-Operative (SABRE)

Micro-Generation

Southern Alberta has some of the best renewable energy resources in Canada. To take advantage of that, you could install rooftop solar. It is a big investment, but there are financing options available and once it's paid off, you will be generating free electricity!

TRANSPORTATION

Company Fleet

Ensure regular maintenance of personal and company vehicles to ensure they are operating as efficiently as possible. Regular maintenance also cuts down on larger repairs, which can save you money in the long term.



Upgrade company vehicles or fleets to more fuel efficient models, or, even better, use hybrids or electric vehicles. Check for government rebates for zero emissions vehicles.

Alternative Transportation

Incentivize alternate modes of transportation for your staff including public transportation, carpooling, biking, skateboarding, or walking.



This can be done as easily as providing a priority parking spot for carpooling/hybrids/EVs, installing bike racks, and subsidizing public transportation options.



Installing an electric car charger in your parking lot could also act as an incentive for people to choose a more environmentally friendly way to travel and commute and could also attract more customers.

Air Travel

Avoid air travel whenever possible. Consider whether videoconferencing can replace a face-to-face meeting.



If air travel is necessary, you can produce less emissions by flying coach, only taking non-stop flights, and choosing airlines that are more environmentally responsible.

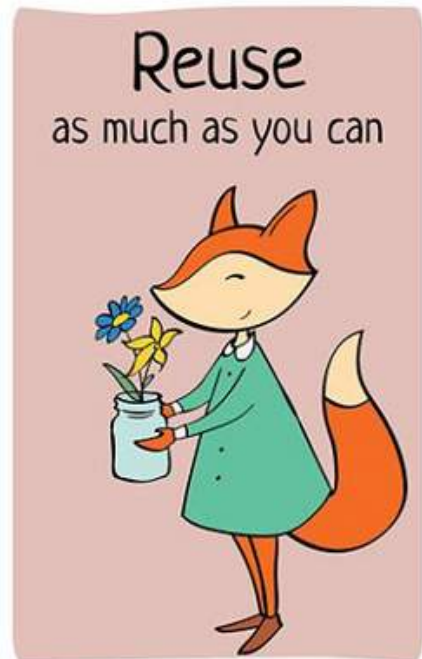
You can also consider purchasing carbon offsets, but make sure to do some research, as there are many organizations that will take money for carbon offsets but many of them are ineffective, and some are scams.

WASTE REDUCTION

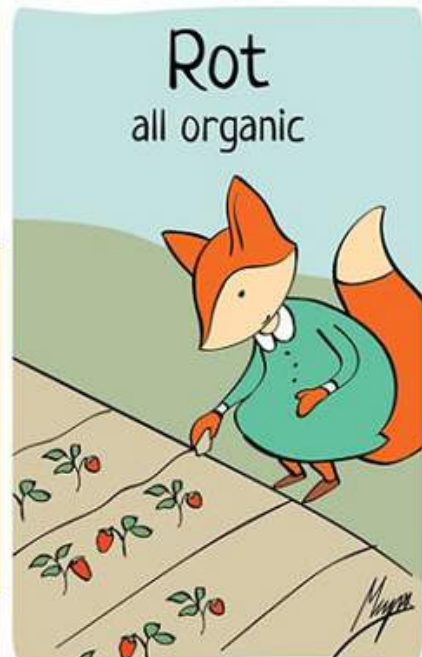
Practice the 6 R's



Waste Aware
Animals



© waste_aware_animals



THE 6 R'S

Rethink

Many people know the saying “Reduce, Reuse, Recycle” but are unaware that the three are not equal. The key is to reduce the waste you are producing by reducing the wasteful things you utilize. Where you cannot reduce the use, you try to purchase reusable items, and when you cannot purchase reusable items, you purchase recyclable items and recycle them after their lifetime. Reduction is really the goal.

When purchasing products, ask yourself: is this product necessary? Is there a practical more sustainable alternative? What will happen to the packaging it comes in? What will happen to the product at the end of its life? This will help you to make better decisions when purchasing items.

Look for sustainable certifications on the products you purchase, for example: Forest Stewardship Council (FSC), Rainforest Alliance, Textile Exchange, Alliance for Water Stewardship, Fair Trade Certified, Marine Stewardship Council, Ocean Wise, Canadian Organic Standards, etc.

Whenever possible, use recycled and recyclable products for things like toilet paper, and paper towels. Use recyclable food containers if you have to use single use containers. If recycled products do not work for you, choose FSC or ecologo certified items as they are sustainably harvested.

“Compostable” bioplastics are very popular but they can only be composted in specialized high-heat facilities. Neither Lethbridge, nor Calgary, currently have this type of facility. Some of these “compostable” bioplastics, including PLA, can be recycled at specialized facilities which do not currently exist in Lethbridge either. This leads to these items being sent to the landfill where they will not break down any faster than plastic. It is also prudent to note that wax paper cannot be composted, but most beeswax wraps can.

THE 6 R'S

Refuse

Refuse any single use plastic, disposable products, and promotional items that will end up in the landfill.

Think about options for customers, for example: offer a discount for anyone who brings their own reusable bags, cup or container.

Make a transition to reusable coffee and water cups, don't use coffee pods, print on both sides of the page and reuse paper that is only printed on one side, incentivize customers to bring their own bag or cups etc., and try to purchase items with less packaging.

Repurpose

Think about whether an item that has reached the end of its life could be used for something else. Could it be donated to someone in need?

Post on online classifieds or social media groups to showcase any items you want to get rid of. Any extra food that is still fit for human consumption can be donated to the soup kitchen or food bank.

Could food scraps be eaten by farm animals? The LOOP Resource program (loopresource.ca) can help to get you in contact with local farmers that will take your organic waste.

Repair

Before disposing of any broken items, consider whether they can be repaired.

Rot

Find out if any staff members compost at home and would be willing to take workplace compost. Once you or your staff designate a responsible team member to compost, you can set up a compost bucket or bin.

Keys to success are to provide signage, audit your food waste, and actively work to reduce the amount of food waste you create as a team.

THE 6 R'S

Recycle

To set up a recycling program in your workplace, start by designating an area to store the recyclable materials until they can be hauled away. This can be as simple as one location within the building or a bin outside, to strategically placing receptacles in places where the waste is generated most, like the kitchen.

Be sure to have clear signage for everyone to see and understand what goes into which receptacle. The trick is to make it easier than sending all waste to the landfill. After a period of time, it will be second nature to you and your employees.

You can designate someone to take the recycling to the depot or hire a recycling service to come pick up the waste. Lethbridge has some reasonably priced companies that make it easy to recycle. Some of them even sort the recycling for you so you don't have to. (The Recycle Bin, Peak Support Services, Style Recycling, Green Circle Salons, etc.)

Recyclable Materials Include:

- Returnables
- Cardboard
- Paper
- Plastic
- Batteries
 - Waste and recycling centre or several dropoff points around town. Check www.call2recycle.ca
- Writing utensils
 - Recycled by Terracycle. Dropoff points include Staples.
- Cigarette butts
 - Can be shipped for free to Terracycle. Visit terracycle.com to print a free shipping label.
- Lightbulbs
 - Rona, London Drugs, Lethbridge Waste and Recycling Center)
- Plastic bags
 - Recycling depots

WATER EFFICIENCY

Low-Flow Fixtures

Regularly monitoring your water bill for changes can alert you to any leaks as well as determine how much you save by switching to low-flow fixtures.

To maximize your water efficiency, install low-flow toilets, fixtures, and faucet aerators. Low-flow toilets have a flush rate of 4.8 litres (1.3 gallons) per flush or less. You can also purchase dual flush toilets that have a low-flow option for liquid waste and a higher flow option for solid waste. Faucet aerators reduce the amount of water coming through the faucet by mixing it with air. The tiny sieve splits the single column of water into smaller streams, introducing air to the flow, which reduces the amount of water used with no noticeable reduction in water pressure. This is an inexpensive upgrade that can save you up to \$100 a year on your bill. A faucet aerator is low flow if it is 5.6 litres (1.5 gallons) per minute or less.

Other upgradable, low-flow fixtures include pre-rinse spray valves for commercial kitchen dish pits and low-flow shower heads. Low flow shower heads have a flow rate of 9.4 litres (2.5 gallons) per minute or less. There are two types of low-flow shower heads: aerated and laminar flow. Both will save water and knowing the difference is useful: aerated showerheads act much the same as faucet aerators, while laminar flow showerheads form individual streams of water. These are better for warm and humid climates, as they do not produce as much steam as aerated showerheads.

Another way to conserve the amount of water your business uses is to use Energy Star appliances. Using cold water for laundry and implementing a full load policy can also reduce water waste and save energy. Look for eco-friendly detergent or detergent alternatives, avoid using fabric softener, and use dryer bars or dryer balls instead of dryer sheets. Full load policies for the dishwasher and eco-friendly detergents are also helpful.

WATER EFFICIENCY

Other ways to Reduce Water Use

Instead of using a water cooler with replaceable bottles, you can have your cooler plumbed in, reducing plastic as well as transportation. Encourage staff and customers to bring their own reusable water bottles to refill and eliminate paper or plastic cups and water bottles. Keeping a jug of water in the fridge helps to reduce water wasted through running the tap while waiting for it to get cold.

Ensure your faucets are not left running or dripping by displaying prompt stickers to “turn off the taps” or install motion sensor or timed faucets.

To reduce your water consumption further, it’s time to think outside the box, or rather, the building. When watering your lawn or any outdoor plants, be sure to water in the morning or evening instead of during the hottest times of the day.

Watering in the heat of the day allows a lot of the water to evaporate before your plants can utilize it properly. When it is cooler outside, the soil and plants will absorb water more efficiently, with little loss to evaporation, allowing you to use less water. You could also install a high efficiency irrigation system if that is feasible.

Another thing we don’t often think about is where the water goes once we’ve used it. It is important to keep this in mind when using chemicals or soaps that get washed down the sink or flushed down the toilet. Using eco-friendly cleaning products and avoiding antibacterial soaps will help to keep our streams, rivers, and lakes clean for us and to provide a healthy habitat for fish and plants. It is important to remember never to pour any waste into the storm drains as that water does not pass through the wastewater treatment plant, so any contaminants will flow directly to the river and cause pollution.

EVENTS

Events

A lot of people throw sustainability out the window when hosting events, thinking either that it is impossible to hold an event without disposable items or that it is a one time occurrence or an annual thing, so how much waste could it produce? The truth is that it is actually quite easy to keep your events sustainable too!

Some ideas include switching to recyclable plastic cups (look for a recycling symbol on the bottom. #1 is the easiest to recycle), and make sure they are rinsed and dry before putting them into the recycling bin. Avoid paper coffee cups when possible, as the plastic coating on the inside makes them non-recyclable. Encourage staff and the public to bring their own water bottle and provide refilling stations instead of plastic water bottles. Reusable water bottles with your company logo can be a useful gift for visitors that didn't bring their own bottle.

If you give out promotional items featuring your logo, why not give a reusable or collapsible water bottle and reusable straw? Most cost the same as a T-shirt and are customizable. Look for items with the least amount of packaging.

If you are having a staff function with food, provide an organics or compost bin for any food waste. This can be taken to a staff member's house for composting or donated to a local community garden. Providing a bin for composting, recycling, and waste will help to reduce overall waste being sent to the landfill.

If your event is catered, ask if you can rent plates, glasses, and silverware. If you mention to them that you want your event to be zero waste, most companies are happy to accommodate you. If you are ordering takeout, you can take your own containers to have them filled instead of having them come in disposable containers.

If you are taking your staff to an establishment for a staff function, consider visiting a local restaurant or caterer that is committed to being sustainable.

Promote your events as being environmentally responsible to engage that community and attract new participants while encouraging other businesses to do the same.

Once you get the hang of it, it becomes second nature and very easy!

PROMOTION

Marketing

It is important to let your customers and staff know about your sustainability goals!

Engaged employees can help you reach your goals as well as gather their ideas for further progression. Young people are also more likely to choose to work for organizations that share their values, so being more sustainable can help you attract those potential employees.

Customers like to feel good about the way they vote with their dollars and are more likely to support businesses that are socially responsible.

Your efforts to reach your sustainability goals can also inspire staff and customers to set personal goals for sustainability at home, creating a chain reaction where everyone in the community is more responsible together.

Adding some of your environmental successes or aspects of your sustainability journey to your website and advertising mediums can help to spread the word to potential employees and customers that share your sense of responsibility and may promote your business as a leader in the community.

RESOURCES

Here is where you can find more information

- 1. Building design and functionality**
 - a. The Integral group in Calgary provides building commissioning and re-commissioning to ensure the building is functioning as efficiently as possible, as well as sustainability consulting. <https://www.integralgroup.com/expertise/performance-engineering/>
- 2. Carbon offsets** <https://unfccc.int/climate-action/climate-neutral-now>
- 3. Consumers are willing to pay more for sustainable goods** <https://www.inc.com/melanie-curtin/73-percent-of-millennials-are-willing-to-spend-more-money-on-this-1-type-of-product.html>
- 4. Energy efficiency myths** <https://www.offthegridnews.com/grid-threats/top-20-energy-efficiency-myths/>
- 5. Energy Efficiency - Natural Resources Canada** <https://www.nrcan.gc.ca/energy-efficiency/10832>
- 6. Energy use calculator:** http://energyusecalculator.com/calculate_electrical_usage.htm
- 7. Environmental news - CBC's What on Earth? newsletter**
<https://www.cbc.ca/news/technology/what-on-earth-newsletter-promo-1.4865004>
- 8. Green energy providers:**
 - a. ACE <https://www.acenergy.ca/green>
 - b. Bullfrog Power <https://www.bullfrogpower.com/>
 - c. SABRE Co-operative <https://sabrecooperative.wordpress.com/>
- 9. How to set up a workplace recycling program** <https://cleanriver.com/set-office-recycling-program/>
- 10. Most millennials would take a pay cut to work at an environmentally responsible company - Fast Company** <https://www.fastcompany.com/90306556/most-millennials-would-take-a-pay-cut-to-work-at-a-sustainable-company>
- 11. Millennials Want Sustainable Investments - Bloomberg**
<https://www.bloomberg.com/news/articles/2016-10-26/millennials-are-coming-and-they-want-sustainable-investments>
- 12. Millennials want to work for employers committed to values and ethics - The Guardian**
<https://www.theguardian.com/sustainable-business/2015/may/05/millennials-employment-employers-values-ethics-jobs>
- 13. Solar water heaters** <https://www.nrcan.gc.ca/energy/products/categories/water-heaters/14562>
- 14. Southern Alberta Renewable Energy Co-op (SABRE)**
<https://sabrecooperative.wordpress.com/>
- 15. Sustainable product certifications** <https://www.mnn.com/money/sustainable-business-practices/stories/green-product-certification-21-symbols-you-should>
- 16. Sustainability Sells - Nielsen report**
<https://www.nielsen.com/us/en/insights/article/2018/sustainability-sells-linking-sustainability-claims-to-sales/>
- 17. The Business of Sustainability - McKinsey & Company** <https://www.mckinsey.com/business-functions/sustainability/our-insights/the-business-of-sustainability-mckinsey-global-survey-results>
- 18. Tips for bringing EV chargers to your workplace** <https://www.chargepoint.com/blog/six-tips-bringing-ev-charging-your-workplace/>