

Calgary Economic Development and REAP

Green Business Report – Simple Steps for Going Green

March 30, 2009



RESPECT FOR THE EARTH
AND ALL PEOPLE

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Introduction

For several years now, using the word “green” as an adjective (i.e. green economy, green living, green technologies, etc) has become ever more popular. As the general public has become more aware of the threats posed by greenhouse gas (GHG) emissions and climate change, consumers have begun asking for local businesses and services to provide more environmentally friendly products and technologies, along with a demonstrated commitment to sustainable business practices. Making the decision to green a business not only addresses environmental issues and appeals to potential clients and customers, but in today’s economic climate, it also addresses important financial concerns. When times are tough, every company feels an added responsibility to cut costs wherever they can, and “going green” presents an opportunity for small and medium sized enterprises (SMEs) to both improve their bottom line and boost their reputation.

Large companies such as Wal Mart, TD Bank and Starbucks make headlines when they change their business practices to reduce their carbon emissions or change their focus to include more green products – they experience remarkable consumer loyalty and earn a fortune in media attention. Locally, many of the large Calgary-based energy companies have received much publicity for their Corporate Social Responsibility (CSR) policies. The City of Calgary and its citizens have also demonstrated the importance of committing to sustainability through imagineCalgary, which is a City-led, community owned-initiative to create a 100-year vision and plan for a sustainable Calgary. The concept behind it is to ensure a prosperous economy, clean environment and high quality of life for the people living in the city for decades to come.

But implementing a CSR policy, becoming more energy efficient, and committing to sustainability are not solely within the purview of large, multinational companies or municipalities. Changes made by smaller owner operated businesses may not garner the same buzz, but their decision to embrace green practice or sustainable activities is just as important. Calgary Economic Development (CED) and REAP (Respect for the Earth and All People) have prepared this report to show what local SMEs can do to become more green and how those actions can have a major impact on not only budgets and revenue, but customer loyalty, community reputation, and employee engagement.

Running a business in a sustainable way can be a key driver when it comes to meeting budgetary goals. Some of the key benefits of greening a business are:

- cost cutting: money can be saved by spending less on energy, water and materials
- increased revenue: by either introducing innovative product design or improving brand image, market share can be increased
- improved productivity: a greener, more ethical office can improve employee morale and retention
- saving the planet: it’s a big statement, but becoming more energy efficient, reducing waste and implementing a green procurement strategy are important contributors to the overall health of the planet

The benefits however, are not the only things to consider. Going green is a journey – while some changes can be made with the flick of a switch, others take more time to implement or will be met with resistance from employees. Also, every business is unique – what may work for some companies won't work for others. Just as every SME in Calgary is different, there are different shades of green. Among these shades are simple tasks like recycling or more complicated processes to offset greenhouse gas emissions – there are many steps to becoming more environmentally aware and active. Thinking about how to solve the world's environmental problems can be overwhelming, so it is important to think small, not big. Oftentimes, small, practical changes are the most valuable. This paper will cover four key actions, along with some local examples, that SMEs can take to make the first of many steps to becoming green. The actions that are covered in this paper are:

- Energy Efficiency
- Waste Reduction
- Transportation
- Supply Chain Improvements

For each action, we have included some background information about why it is important, how improvements can be made, and some local examples of programs that are currently in place. More information for each tactic, along with local service providers, can be found at the end of the document.

I) Energy Efficiency

In 2006, Calgary had Alberta's largest electricity load growth with residential and commercial electricity transmission demand increasing by 58 per cent.¹ Past forecasts indicate that Alberta's current electricity use was not supposed to be needed until 2014, and all indications are that Calgary's population will continue to grow, which means that demand could soon exceed supply. If we don't do more to manage consumption, there is the potential of brownouts or other interruptions in service. Energy conservation by end-users, both residential and commercial, can help reverse this trend.

Within general business costs, energy costs are increasing at the fastest rate – according to a 2005 Conference Board study, industry fuel (natural gas, oil, coal) has risen by 99 per cent, while electricity costs have increased by 32 per cent.² Choosing more energy efficient solutions can help alleviate these types of business costs. Sometimes these choices do have higher up-front costs, but have payback periods of only a few months, and there are also government rebates to reduce equipment costs. Sometimes, if a business can reduce its dependence on energy during peak hours, they may be able to negotiate better rates with utility companies. Additionally, by reducing its dependence on energy, a business can be somewhat protected from energy market fluctuations and the dwindling of fossil fuels. And beyond just cutting costs, studies show that a 20 per cent saving in energy consumption can have the same positive effect as a 5 per cent increase in sales³ – by decreasing overhead costs through controlled energy use, a firm can bolster the competitiveness of its goods or services.

¹ ENMAX, "Power and Possibility: 2006 Annual Report" (December 2006)

² Brian Guthrie and Paul Mitchell, "Why Energy Efficiency," Conference Board of Canada (June 2005)

³ The Carbon Trust, <http://www.carbontrust.co.uk/energy/whysavecarbon/business.htm>

i) Lighting

Lighting is the most visible form of energy use. The total amount of energy used in the industrial and commercial sector in Canada varies by building types, with a high of 34 per cent in offices, to a low of 6 per cent in warehouses. Estimates for the percent of energy used in lighting in these sectors range from 13 to 15 per cent of total energy consumption – reducing the amount of energy used for lighting by 40 to 50 per cent (which is an attainable target for individual firms) would offer considerable savings in both energy costs and associated environmental impact.

The commonly used incandescent bulb is the least efficient lamp available, with only about 5 per cent of the electricity it uses going to light the bulb, while the other 95 per cent generates only heat. In the big picture, improving light output and lowering heat output would reduce demand for electricity from coal-fired power plants which emit carbon dioxide (CO₂), which is the single largest contributor to global warming. For immediate relief, switching to bulbs that are more efficient - such as compact fluorescent lights (CFLs) and advanced halogen lamps – would reduce energy bills by up to 75 percent. CFLs also last seven to ten times longer than incandescent bulbs. The payback period for CFLs is less than four years for a lamp operating eight hours per day, and the lamp will not burn out during that time.

There are low energy lighting solutions for every application – spotlights, shop lighting, flood lighting, etc. For example, exit signs, which are mandated by building codes to be on at all times, can be converted to LED units. This type of investment can result in a 90 per cent saving in operating costs and will require a fraction of the usual maintenance, and last about 10 years. Another good investment are occupancy sensors in parts of an office that are used more infrequently – bathrooms, storage rooms, corridors, stairwells, conference rooms, etc. Occupancy sensors detect the presence or absence of people and turn the lights on or off accordingly. They can be a cost-effective tool for reducing the operating time and output of lighting systems and can reduce lighting energy consumption by up to 50 per cent.⁴

The Calgary Tower recently replaced all the exterior lights on the tower with CFLs, saving about \$12,000 and sparing the atmosphere 104 metric tonnes of greenhouse gas emissions.

ii) Computers

Another simple solution to saving energy costs is to re-evaluate how computers are used. As computers play an ever-larger role in our lives, the energy demands, costs and waste associated with them, are escalating dramatically. Some computing facts:⁵

- in a typical desktop computer, nearly half the power coming out of the wall is wasted and never reaches the processor memory, disks, or other components;

⁴ Climate Change Central – Commercial Lighting (<http://www.climatechangecentral.com/take-action/business/energy-efficiency/lighting/commercial-lighting>)

⁵ “Go Green, Save Green – The Benefits of Eco-Friendly Computing” APC by Schneider Electric

- the added heat from inefficient computers can increase the demand on air conditioners and cooling systems, making your computing equipment even more expensive to run;
- even though most of today's desktop computers are capable of automatically transitioning to a sleep or hibernate state when inactive, about 90 per cent of systems have this function disabled;
- turning a computer off and then back on requires far less energy than the energy consumed when it is left on for more than three minutes;
- the average desktop computer requires 85 watts to idle – if that computer were in use or idling for only 40 hours a week instead of a full 165, over \$40 in energy costs would be saved annually – multiply that by the number of computers in an average office, and the savings become significant; and,
- one computer left on 24 hours a day costs between \$115 to \$160 in electricity costs annually, dumping 1,500 pounds of CO2 into the atmosphere – a tree absorbs between 3 and 15 pounds of CO2 each year, which means that up to 500 trees are needed to offset the annual emissions of just one computer left on all the time

The computer is a tool that all businesses use for the better part of each working day. By taking simple steps or changing small habits, such as turning a computer off each night, a company can reduce energy use by 810 kWh per year, and net a 67 per cent annual savings. An important first step is to buy ENERGY STAR qualified models when buying a new computer, as they use up to 75 per cent less electricity, and cost the same amount, as nonqualified ones.

Other quick fixes include:

- changing to flat-screen monitors – they use less energy;
- switching to smaller monitors – a 14 inch display uses 40 per cent less energy than a 17 inch one;
- enabling the standby/sleep mode and power management setting on each computer;
- powering off the monitor when the computer is not in use instead of screen savers; and finally,
- plugging computers into a surge protector with a master control outlet, which automatically senses when the computer is not in use and cuts power to it and all peripherals.

In an effort to become more energy efficient, SMEs can track energy use by reviewing invoices to identify trends and variations. While installing energy-efficient commercial and industrial lighting has an up-front cost, it can often pay for itself, in electricity savings within two to three years. In addition, newer efficient lighting systems last longer (reducing maintenance costs) and produce superior light and less heat (reducing summer cooling costs). Finally, change can occur with the simple flick of a switch – a recent poll by Harris Interactive showed that only 42 per cent of workers turn off the lights and only 34 per cent power-off their computers at the end of the day.⁶ If everyone turned off the lights and their computers, millions of dollars could be saved and tonnes of CO2 emissions would be eliminated.

⁶ David Suzuki Foundation – Small Steps (http://www.davidsuzuki.org/Small_Steps/)

II) Waste Reduction

Every business generates large amounts of waste – be it general garbage, paper products, obsolete electronics, or excess packaging from office goods. Canadians divert less than 25 per cent of the waste that we generate, and 10 per cent of all the waste in Canadian landfills comes from offices. According to Environment Canada, landfill waste accounts for 38 per cent of Canada’s total methane emissions, which are a significant contribution to greenhouse gas emissions which damage the environment.⁷ An important step to becoming more green is to take a good look at the waste that your business generates and how this can affect your bottom line and the environment as a whole.

With a diversion rate of 92% MEC Calgary kept over 94 metric tonnes of waste out of the landfill in 2008 even while undergoing a major renovation. This is achieved by a combination of staff education/commitment and solid programs that are closely monitored and regularly audited. Aside from winning an Emerald Award, and gaining public and professional recognition, our waste diversion programs are a source of staff pride, a valuable education tool and the source of significant financial savings. Our hauling fees have been reduced by over 50% since 2001.

- Brad Clute, Sustainability Co-ordinator, MEC Calgary

i) Paper

One of the most obvious examples is paper waste – most offices go through massive amounts of paper. By taking a few simple steps, paper waste can be reduced by close to 50 per cent. The average person uses 106 pieces of paper each week and a typical office disposes of about 350 pounds of wastepaper per employee, per year⁸. Switching from single-sided to double-sided printing can cut this figure – and corresponding expenditures and environmental impacts – almost in half. This is an easy change to trace, as printers have the technology to track how many copies are made either daily, weekly and monthly. It’s an easy change to implement as well, with one click of the mouse to change the default settings to double-sided printing on individual computers. Most users won’t even notice the difference. In addition, switching to 100 per cent post-consumer recycled paper not only saves trees and reduces waste directed to the landfill, but also reduces the GHG emissions associated with paper by about 40 per cent.⁹

ii) Electronics

Another important material to consider is e-waste. Approximately 1 per cent of the municipal solid waste stream is currently made up of electronics. A recent report by the International Association of Electronics Recyclers projects that with the current growth of the various categories of consumer electronics, approximately 3 billion units will be scrapped during the rest of this decade, or an average of 400 million units a year.¹⁰

⁷ Waste Reduction Week in Canada – Business Resource Kit (http://www.wrwcanda.com/pdf/Business_Kit_EN_2007.pdf)

⁸ Natural Resources Defense Council (<http://www.nrdc.org/enterprise/greeningadvisor/pa-reducing.asp>)

⁹ David Suzuki Foundation, “Doing Business in a New Climate: A Guide to Measuring, Reducing, and Offsetting Greenhouse Gas Emissions,” 2008

¹⁰ International Association of Electronics Recyclers, Industry Report 2006.

As companies are continually upgrading their computing and communications systems, chances are that the electronics can still be used. Schools, non-profit organizations and lower-income families are often on the look-out for donated computers, which extends the life of a valuable product and also keeps them out of the waste management system. If the computer is too old (i.e. more than 5-7 years), it can be recycled. Recycling electronics avoids pollution and also reduces the energy used in new product manufacturing.

iii) Compost

Another form of office garbage that could be diverted is food waste – the average office worker produces half a kilogram of organic waste a day.¹¹ Oftentimes a business doesn't want to deal with the perceived hassles of composting (i.e. odour, fruitflies, how best to dispose, etc). But these issues are easily overcome – throwing organic waste into a designated bin much like one does with aluminum, paper products or glass, is a simple step. And more and more service providers exist that will take-away an office's compostables, just like they do other waste. Like all of the other steps to going green, composting may take some additional education for staff, but if designed correctly, a composting program can be as successful as any other green initiative.

We started a composting program at the Central Branch of the Calgary Public Library in January 2009. To date, the garbage in our staff lunchroom has been reduced by half – we've eliminated approximately 35 pounds a week. It has definitely been an educational process, that has required good signage to distinguish the compost receptacle from all the other waste containers (i.e. paper, bottles and cans, regular garbage), but if it's easy to do the right thing, people will do it. Beyond the waste that has been diverted, it has also encouraged everyone to think twice about the packaging they use for their lunches and we've also heard that many staff are now thinking about how to reduce, reuse, recycle or compost waste at home. This type of ripple effect is one of the most encouraging aspects of any type of eco-action policy.

- Rosemary Griebel, Co-chair, CPL Eco-Action Team

iv) General recycling

No recycling program is ever complete – consider how to improve a program that is already in place. Blue and green boxes have been around forever, and everyone thinks that they are doing a great job in recycling their pop cans and paper products, but more can always be done and a recycling program can always be improved. Other materials that SMEs may either use or produce that can be recycled include: cardboard, plastic bags, food and beverage containers, toner, cartridges, tires, batteries, fluorescent bulbs, engine oil, filters, antifreeze, cooking oil, paint, shrink wrap, wood, scrap metal, dismantled furniture, and wood pallets.

Consider doing a waste audit – either formally (with a dedicated waste audit contractor) or informally (in-house assessment) . Try to recycle or reduce at least one additional high-volume material. Check garbage bins to determine which material takes up the most space and figure out how it can be diverted – get in touch with your recycling contractor to see how certain objects can be diverted or re-used by someone else. By determining how much your business wastes, both in quantity and cost, you can identify the feasibility of enhancing recycling efforts and potential for cost savings.

¹¹ National Post, "Office composting system for green-conscious businesses" August 3, 2007

Another piece of information worth considering is the broader economic benefit to recycling – in addition to reducing waste and re-using materials, it also creates jobs: for every 15,000 tonnes of materials recycled, nine jobs are created by the recycling industry; only two jobs are created for every 15,000 tonnes of waste incinerated, and land-filling the same amount only creates one job.¹²

III) Transportation

Transportation accounts for about 25 per cent of total greenhouse gas emissions in Canada. Environment Canada estimates that for every 2,000 litres of gasoline consumed, the average car produces 4,702 kg of carbon dioxide, 186.6 kg of carbon monoxide, 28kg of volatile organic compounds and 25.6 kg of nitrogen oxides.¹³ Business owners can do their part to reduce these harmful emissions by encouraging their employees to use less polluting forms of transportation. By promoting other forms of transport such as walking, cycling, public transit and carpooling, not only are emissions reduced, but other issues such as traffic congestion and personal health can also be addressed.

i) Ride-sharing

According to the Canadian Automobile Association, the average cost of owning a car is between \$6,500 and \$7,500 a year. One way to cut down on costs, saving money for other uses, is some form of ride-sharing. One example is a car-sharing co-op, where members pay a basic fee, plus a minimal per hour charge and mileage fee when they use a car. The co-op takes care of vehicle maintenance and insurance. It may not work for everyone, as there are situations where a car is needed, but it can be a great substitute for a second vehicle. Building on the co-op model, a business can purchase one vehicle for its staff to use during business hours. If a car-sharing program doesn't work, businesses can still encourage their employees to reduce single-occupant vehicle trips to and from work. One option is to provide a ride-matching service for employees who live in close proximity to each other – currently, three in every four car trips involves transporting a single occupant. By sharing a lift just once a week, traffic volumes would fall by 12-15 per cent. Additionally, downtown parking rates are quite high, so another tool would be to reserve or subsidize parking spots for designated shared vehicles.

In 2005 after we moved out of the downtown core we realized that staff could no longer walk or take the C-Train to meetings. In order to give our staff options for transport during the day, we bought a SMART car and 2 bicycles – the shared resource makes it easier for our employees to get around. We decided on a SMART car because it was the most energy efficient vehicle available, plus it stands out from the crowd, making it a smart marketing tool to promote our company. Doing our part to reduce emissions as well as improving the health of our employees is important to the company culture at Karo.

- Alex Berenyi, Director, Systems & Technology, KARO Group Calgary

¹² Greater Vancouver Regional District, "Business Guide to Eco-efficiency" (<http://www.metrovancouver.org/about/publications/Publications/TenStrategies1.pdf>)

¹³ Cited in Transportation Canada, Moving on Sustainable Transport Program (<http://www.tc.gc.ca/programs/environment/most/menu.htm>)

If possible, encourage your employees to abandon the car as a whole – the average car makes 2,000 trips each year of distances 3 kilometres or less. Many of these trips could be done on foot or bicycle, and if an employer could provide bike racks and shower facilities, more employees might utilize them. Beyond travel to and from work, general business travel also adds to transport emissions. When planning business travel, think twice about whether the trip is necessary – the same work might be accomplished through video or teleconferencing solutions.

ii) Flexible Work

Another tool to reduce transportation costs, both economic and environmental, is the introduction of a telework program. Telework is a work arrangement in which employees enjoy a certain flexibility in working location and hours. Instead of the daily commute to a central working place, the office is, to some extent, replaced by telecommunication links. Employees are able to work from a variety of locations – at home, at a customer site, or at a designated work space – at any time, while still being linked to the corporate office through tools such as the phone, internet, or videoconferencing, among others.

A recent study found that if every company in a major metropolitan area required its entire workforce to work from home or in a neighbourhood satellite facility just one day a week instead of commuting to the central office downtown, the number of cars on the road, and their energy consumption, would drop by 20 per cent.¹⁴ By teleworking just two days a week, the average employee will drive 5,000 fewer kilometres, eliminate 1,000 kilograms of CO₂ emissions and save about \$430 in gas each year.¹⁵ Telework has other benefits as well – by spending less time commuting or stuck in traffic, employees have more time to work, experience less stress, and are therefore more productive. A more flexible work schedule also pays off when it comes to attracting and retaining workers, and reduces real estate costs for the employer.

This spring, Calgary Economic Development (CED) will be launching WORKshift – a strategic initiative to design and deploy a regional telework program that directly supports new ways of working in and around Calgary. A telework program can increase employee productivity by up to 40 per cent, improve employee work/life balance, alleviate traffic and pressures on transit, reduce GHG emissions, and also relieve real estate pressures on individual businesses. Urban sprawl and traffic gridlock in the Calgary region results in lost productivity and pollution that negatively impacts our environment. It also means that Calgarians have less time to spend doing the things we love. WORKshift will concurrently benefit industry bottom-line, improve the lives of Calgarians and foster sustainability in our city.

- Robyn Bews, Telework Project Manager, CED

All of the described trip-reduction programs can provide at least a partial solution to the problem of traffic congestion, reduce green house gas emissions from individual cars, save employees money on parking and other costs, as well as improve their health and well-being. By facilitating different types of commuting and work schedules, employers get the added benefit of greater loyalty and respect from customers and clients who

¹⁴ The Work Design Collaborative, "How Come Distributed Work is Still the Next Big Thing," February 12, 2007

¹⁵ David Suzuki Foundation – Small Steps

appreciate a business' commitment to the well being of their employees, the environment and their local community.

IV) Supply Chain Improvements

Quite often, the strongest statement a business can make is through its purchasing power. The majority of the green products found in the marketplace today only exist due to the pressure of environmentally savvy consumers. By implementing a green procurement strategy, buying products locally when possible and ensuring that the people you deal with and the supplies you use have a small footprint, you can make a significant difference. Ensuring that suppliers meet the same level of environmental responsibility, performance and efficiencies expected of your own company is an important step to becoming green.

We at Riva's – The Eco Store are aware that our purchasing decisions have a significant impact on our environmental footprint. Consequently our preference is to support sustainable businesses located closer to home. When this is not possible, we research our products to ensure they are produced and/or manufactured in a manner that impacts the environment as minimally as possible. Various agencies provide guidelines for "green" purchasing and we make every effort to access such information when choosing our suppliers. We want to provide our customers with products that are both the greenest and top quality.

- Shayne Korithoski, Manager, Riva's – The Eco Store

When considering your purchase, ask your suppliers to find you products that are¹⁶:

- energy efficient;
- made with less packaging, or with packaging that can be returned to the manufacturer;
- non-toxic (during use or at disposal);
- manufactured from recycled materials;
- made from a high percentage of post-consumer recycled content;
- able to be recycled in a local facility or returned to the manufacturer at the end of the lifecycle;
- durable, with a long service life; and
- reusable or contain reusable parts.

Almost every supply decision a company makes has a green option. Listed below are some examples and options for change.

i) Power

As mentioned in the energy efficiency section, demand for electricity in Alberta is growing faster than anyone anticipated. Currently, 62 per cent of Alberta's electricity comes from coal-fired power plants, which contribute more than 11 tonnes of greenhouse gases to our atmosphere each year. Small businesses can significantly reduce their impact on the environment by switching to non-polluting, renewable green power. Most local utility companies now offer an array of green power options, and

¹⁶ Greater Vancouver Regional District – Business Tools for Sustainability, and Waste Reduction Week in Canada – Business Resource Kit

while the initial cost is slightly more than getting power from conventional sources, as the market for green power grows larger, the costs are coming down. Additionally, the pricing does not take into account the savings to society that come with a cleaner environment and the reduction in climate change impacts associated with buying renewable power. For example, if the average small business switches just 25 per cent of their annual power use to a renewable energy source, the greenhouse gas emissions they offset would be equivalent to planting 798 trees a year or 21,721 fewer kilometres being driven annually.¹⁷ How it works is dependent on individual power providers, but as a rule, it requires no change in daily behaviour, as the change to renewable power happens behind the scenes.

ii) Office supplies

Not all office supplies have renewable options, but some important ones do such as paper, printer ink and ink cartridges. The lifecycle of paper products has negative impacts on the environment due to the release of toxic air pollutants during the pulping process, high volume of water use, and high energy demands, among others. By choosing recycled-content paper, businesses can help offset some of these impacts. Recycled-content paper is widely available and of equal quality to non-recycled paper, however it is typically between 8 to 36 per cent more expensive than the latter. That said, price premiums can be offset through paper efficiencies such as double-side printing, group or bulk purchasing and savings accrued from in-house recycling programs.¹⁸

Businesses can also choose to buy vegetable or non-petroleum based inks. They are made from renewable resources, require fewer hazardous solvents, and often produce brighter, cleaner colours. There is also the option of purchasing remanufactured ink cartridges. Approximately 97 per cent of the combined components (plastic, metal, rubber, paper, foam, and toner) in toner cartridges can be recycled. If they are not, the plastic takes at least 1,000 years to decompose.¹⁹ Toner cartridges for most printers can be remanufactured several times to function in the same way as the cartridge provided by the original equipment manufacturer, with savings of up to 60 per cent on a cost per copy basis than non-remanufactured cartridges.

iii) Shipping

Just as you are ensuring more efficient transportation options for your employees, consider the emissions that are created when it comes to shipping materials to and from your office. Many companies already use bicycle couriers for local shipping, but other options exist such as companies that offer biodiesel vehicles for their deliveries or a focus on sustainable practices for national and international shipping.

iv) Furniture and Design

¹⁷ Enmax, Greenmax Calculator – boost that number to 100% and it is equivalent to 3,192 trees a year, or 86,885 kms a year

(<http://www.enmax.com/Energy/SmBus/Greenmax/Conservation/Greenmax+Calculator.htm>)

¹⁸ Responsible Purchasing Network – Copy Paper Responsible Purchasing Guide (www.responsiblepurchasing.org/purchasing_guides/copy_paper/index.php)

¹⁹ Frogfile Office Essentials (<http://www.frogfile.com/frogfile/resources>)

Look for office furniture and design solutions that are made from eco-friendly materials or by manufacturers that have been certified as leaders in energy or environmental design. Oftentimes the construction and maintenance of commercial office space, no matter the size of the business, takes a heavy toll on the environment, so choosing sustainable and adaptable furniture and other office solutions (i.e. cubicle walls) is an important step to creating a more environmentally friendly office space. Calgary also has a vibrant furniture manufacturing sector, so consider purchasing these office solutions from a local company with an integrated supply chain, which will minimize delivery times, costs and emissions.

v) Refreshments

Almost every office or small business buys coffee for its employees and customers, so consider purchasing fairly traded and/or organic blends, which promise more sustainable and equitable practices when coffee is produced, bought and delivered around the world. Encourage the use of a reusable ceramic coffee mug – over its life span, this type of mug will be used nearly 3,000 times. This results in 30 times less solid waste and 60 times less air pollution than using the equivalent number of cardboard cups, even when taking into account the amount of water needed to wash it between uses.²⁰

Another commonly consumed item is water. There are a variety of environmental issues that come with drinking bottled water – not the least of which are waste and uncertainty over the long-term health effects created by plastic bottles. In the United States alone, producing the 8.8 billion gallons of bottled water that American bought in 2007, required the energy equivalent of over 17 million barrels of oil and produced over 2.5 million tonnes of carbon dioxide, and for each gallon of water that is bottled, an additional two gallons are used in processing.²¹

Additional environmental costs are added when you consider the emissions that come from shipping bottled water across the globe and the cold storage required at the destination. While the recycling of these bottles has improved – in Alberta 69 per cent of single serving plastic beverage containers were recovered in 2008²² – the fact remains that the upfront purchase of bottled water is often unnecessarily wasteful. There is nothing wrong with municipal water – the quality of Calgary's drinking water consistently meets or exceeds the stringent standards set by both Health Canada and Alberta Environment. Plus the economic cost of bottled water is astronomical when compared to the cost of the drinking water provided by municipalities. According to one estimate, if the average person drinks their recommended eight glasses of water a day from the municipal supply, it would cost them approximately 89 cents a year; to drink the same amount of bottled water, it would amount to \$2,190 a year.²³ Multiply that by number of employees, and the cost rises significantly. If people are uncomfortable with drinking tap water (although, as already stated, it is very safe), consider installing a filtration system. While there may be an upfront cost, the savings to both the environment and the bottom line are most likely worth it.

²⁰ David Suzuki Foundation – Small Steps

²¹ Responsible Purchasing Network – Responsible Purchasing Guide to Bottled Water (http://www.responsiblepurchasing.org/purchasing_guides/bottled_water/index.php)

²² REAP Calgary eMagazine: <http://www.reapcalgary.com/blog/?p=403>

²³ Strathcona County – Bottled Water Facts

(<https://www.strathcona.ab.ca/Strathcona/Departments/Utilities/Water+and+wastewater/default.htm>)

Finally, when it comes to supply chain improvements, beyond just thinking twice about what you buy for your business, also start thinking about how much you buy. In order to avoid the cost of purchasing and disposing of unused products, buy only the amount of product needed. This will reduce storage requirements, product losses and waste, all of which are important steps to both saving money and becoming a more sustainable business.

SwizzleSticks SalonSpa is committed to developing business partnerships based on a company's environmental and humanitarian policies and initiatives often requiring the submission of a sustainability statement to be assessed along with a price quote. While this initiative is nothing new for our company, it has recently lead to new relationships with our coffee supplier, facility cleaners, courier and print and paper supplier, to name a few. Through continuous stakeholder surveys and focus groups we have determined now more than ever, that our clients, employees and indeed all of our stakeholders increasingly choose to enter a business relationship with SwizzleSticks because of their alignment with our 20 year old environmental and humanitarian missions.

- Tim Neis, Environmental Officer and Spa Team Leader, SwizzleSticks SalonSpa

Conclusion

By taking one or more of the steps described above, you are well on your way to adopting a corporate environmental policy. And in order to make this policy stick, it is vital that all employees are fully engaged. While it is important that leadership come from the top, buy-in throughout whole organization is also necessary. There are a variety of ways to encourage participation:

- Start a "green team" – keen individuals can identify projects and promote awareness to the rest of the organization.
- Demonstrate change – once the first few steps have been taken, post notices about the resource savings obtained through your environmental program, demonstrating to employees how their actions have made a difference for both the business and the environment.
- Reward innovation – implement a recognition program that will encourage all employees to come up with new ideas on how to save resources.
- Lead by example – becoming green is about more than just implementing a broad policy, pick a personal target (i.e. bike to work or commit to waste free lunches).
- Make it fun – environmental sustainability should not be seen as a chore – create competitions between departments to see who can divert the most waste; enter the commuter challenge with another business; or if people start cycling to work for example, put together a corporate team for events.

Generally speaking, employees want to work for a business that is perceived as a good corporate citizen. People don't check their values at the door when they leave for work each day – when staff members see their workplace is committed to reducing its corporate footprint, they become more invested in their work.²⁴ By introducing a green program, a business has the opportunity to become an employer of choice. The most

²⁴ David Suzuki Foundation, "David Suzuki's Nature Challenge At Work."

valuable asset any company possesses is its people – the more engaged the staff, the more productive they are, and the more valuable the organization becomes.

The Calgary Herald is committed to reducing our environmental footprint, educating and engaging our employees in green activities both at work and at home, and building awareness in the community of local environmental issues and best practices. Our Herald Green Team works to improve everything from our building operations and internal consumption to our external partnerships and editorial coverage. Monthly employee eco-challenges keep our people engaged and seasonal eco-markets on site introduce products and services from our green partners. In the community we have partnered with the City of Calgary to establish “Riverbank Rescue: the Sandy Beach Pilot Project,” a multi-year initiative where Herald employees and their families volunteer their time to restore a 1.25 acre site of riverbank to its natural state. Building on the award-winning content of our weekly Friday Green Guide, our environmental content has increased significantly and seen growing support from our readers. We know our focus on the environment makes a difference in the workplace and we believe it can make a difference in the community.
- Alana Engler, Manager, Marketing Development, Calgary Herald

While the cost savings and emission offsets associated with greening a business can be quantified, perception can't always be. But just because they are not as easily measured, the publicity a company receives and how its reputation is improved from embracing green alternatives cannot be ignored. A national poll conducted in February 2008 showed that 67 per cent of consumers are more likely to switch to banks, stores and other retail or service outlets that have demonstrated their commitment to the environment. A further 75 per cent of those surveyed indicated that they are likely to change their own shopping habits to purchase more environmentally friendly goods and services, even if it means paying a premium price.²⁵

A free lunch What!?!? TRAK Kayaks has involved our team in preparing and making available lunch for our employees. Sitting around the same table for lunch as a TRAK family has fostered close relationships, increased efficiency in our production and provided a cross-functional way of working that pays off all over the place. We generally don't lose employees ... people like working here, period. When you really look at it, the cost is minimal compared to all the very tangible and real benefits to both our people, who don't have to worry about making lunch everyday, and to our company. It's one of the best things we've ever done to foster a connected and innovative environment. By the way, “it's your turn to barbeque today!”
- Nolin Veillard, CEO, TRAK Kayaks Calgary

Another consideration in these tougher economic times is that when energy spending is reduced, that savings goes towards other demands, stimulating the economy in other ways. A recent study of the power of the green economy in California shows that when consumers shift one dollar of demand from electricity to groceries, they create jobs among retailers, wholesalers, food processors and other business.²⁶

The examples given above – becoming more energy efficient, reducing waste, considering transportation alternatives and making supply chain improvements – are just four possible steps on a longer journey to “going green.” Taking the first step can often

²⁵ Bullfrog power press release, February 26, 2008

²⁶ David Roland-Host, “Energy Efficiency, Innovation, and Job Creation in California,” Center for Energy, Resources, and Economic Sustainability, October 2008.

be overwhelming, so in order to make the longer term goal of becoming a more sustainable and environmentally-aware business feasible, it's important to choose something simple, like changing a light bulb or allowing employees to work from home one day a week. Once that first step has been taken, there are a variety of tools available to help ensure that the decisions you are taking are the right ones. Whether it be through REAP's Action Tracker or aligning business goals to the targets set by Imagine Calgary, local support is available.

There really is no one-size-fits-all approach to designing and implementing a green program. Opportunities and obstacles vary from one business to another, but it's important to remember that in order for sustainability to be successful, it shouldn't just be an add-on to any organization, rather it should be part of an integrated business strategy for enhanced business value.

Sources:

APC by Schneider Electric
Bullfrog Power
Canadian Automobile Association
The Carbon Trust
Center for Energy, Resources, and Economic Sustainability (Berkeley)
Conference Board of Canada
Climate Change Central
David Suzuki Foundation
ENMAX
Frogfile Office Essentials
Greater Vancouver Regional District
International Association of Electronics Recyclers
National Post
Natural Resources Defense Council
REAP Calgary – Respect for the Earth and All People
Responsible Purchasing Network
Schneider Electric
Spectrally Enhanced Lighting Solutions Ltd
Strathcona County Utilities
Transportation Canada
The Work Design Collaborative
Waste Reduction Week in Canada

Further Reading

General Climate Change:

www.davidsuzuki.org
www.planetair.ca
www.zerofootprint.net
www.pembina.org
www.pewclimate.org
www.iisd.org
www.greeninc.blogs.nytimes.com
www.ecoaction.gc.ca
www.climatechangecentral.org
www.sierraclub.ca
www.pembina.org
www.pollutionprobe.org
www.carbontrust.co.uk
www.nrdc.org
www.cbc.ca/news/goinggreen
www.calgaryherald.com/life/green-guide/index.html
<http://earth911.com>

Greening your business:

www.matternetwork.com
www.greenbiz.com
www.environmentalleader.com
http://www.calgary.ca/portal/server.pt/gateway/PTARGS_0_0_395_203_0_47/http%3B/content.calgary.ca/CCA/City+Hall/Business+Units/Environmental+Management/Reducing+Calgarys+Ecological+Footprint/Reducing+Calgarys+Ecological+Footprint.htm
www.greenmeetingguide.com

Energy Efficiency:

oee.nrcan.gc.ca/english/index.cfm
www.enmax.com/Energy/SmBus/Greenmax/default.htm
www.cagbc.org/

Waste Reduction:

www.wrwcanda.com
www.albertarecycling.ca
www.era.ca
www.compost.org
www.cleancalgary.org

Transportation:

www.commuterchallenge.ca
www.ivc.ca/cta

Supply Chain:

www.pollutionprobe.org/whatwedo/greenpower/consumerguide/index.htm
www.insidethebottle.org

www.responsiblepurchasing.org
www.buysmartbc.com
www.sppcalgary.org

Sustainability:

www.imaginecalgary.ca
www.sustainablecalgary.ca
www.bettercalgary.ca
www.calgarydollars.ca
www.sustainabilityadvantage.com
www.vibrantcalgary.com
www.creatingcalgary.ca
www.earthcharterinaction.org/content

Green networking:

www.reapcalgary.com
www.greendrinkscalgary.ca
www.yepcanada.ca/calgary/index.html

Sample service provider list*:

- Apache Superior Printing
- Bullfrog Power
- Calgary Alternative Transportation Co-Operative (CATCO)
- Calgary Economic Development (telework)
- Calgary Public Library
- Citizens Bank
- DIRT (furniture)
- Earth's Courier
- Calgary Materials Exchange
- Clean Calgary EcoStore
- Fairware (promotional products)
- Frog File (office supplies)
- Green Fuse Communications
- Jennifer Allford (communications)
- KARO Group Calgary (communications)
- Mountain Equipment Co-op (MEC)
- Mingle Event Management
- Namaste Messenger
- PEL Recycling
- Open Your Eyes Media
- REAP & Conscious Home – Green Living Series
- Riva's – The Eco Store
- Spectrally Enhanced Lighting Solutions Ltd
- Skylark Cleaning Services
- SwizzleSticks SalonSpa
- Tech House Computer Services
- TRAK Kayaks

- Unique Blend Coffee Services
- Verde Tea
- We Are What We Do / Inspire Enterprise

* please note that this is just a sample list of local service providers for some of the green solutions discussed in this paper – it is not exhaustive