

Companies Committed to Excellence and Efficiency

Atlantic Gardens, Middle Sackville – Making every drop count



In 1968, Atlantic Gardens opened as a small roadside garden center on the Bedford Highway. Today, the family owned and operated business boasts 2 locations that carry an abundance of annuals, perennials, nursery stock, seeds, bulbs and tropical plants and include a gift center, a flower shop, a landscape division, bulk soil services and a greenhouse growing and wholesale facility. Water is a necessity at Atlantic Gardens and they have implemented a variety of water reduction and recovery practices. Rain water is collected from the roofs of the greenhouses in a large pond for plant irrigation use. Drip irrigation systems are used in most of the greenhouses to dramatically reduce water loss through evaporation. Excess irrigation water is channelled under the floors and back to the pond. Very little water is wasted and the need to supply water from outside sources is kept to a minimum. In 2005, Atlantic

Gardens replaced their oil furnace with a Decker wood pellet burning furnace, the first to do so in the Atlantic Provinces, to heat the growing greenhouses. This has reduced the amount of fossil fuels they use by approximately 150,000 litres of oil and 15,000 litres of propane annually. The newest greenhouse installed in 2006 has a fully opening roof and walls for natural ventilation which reduce the need for cooling fans. In addition, the plastic covering of this greenhouse is fabricated to last 15 years instead of the normal three years common to the industry. Atlantic Gardens is working with their employees to ensure that all waste is recycled and that all plant material and organic waste is composted onsite. Furthermore, an integrated pest management system is used in the greenhouses to reduce the amount of pesticides used.

Baile Langan Log Cottages, Urbania – Modern sustainability the old-fashioned way



Baile Langan Log Cottages are designated as a Bay of Fundy Recommended Experience dedicated to sustainable tourism and quality travel experiences on Canada's phenomenal Bay of Fundy. The Cottages overlook the scenic Shubenacadie River, where you can watch the Bald Eagles soar from the covered front porch or curl up in the glow of a log fire inside. Open year-round, five handcrafted cottages offer guests a taste of old-fashioned Maritime hospitality. At Baile Langan each cottage was built using the simplest of techniques. Trees, a renewable resource, were manually harvested from their own woodlot greatly reducing transportation costs. Wooden pegs were hand-crafted to hold the logs in position and much of the furniture was hand crafted from left over log ends. The energy input required to produce a log building is a fraction

of that of a conventional house built with resource and energy hungry materials such as brick, concrete and steel. In fact logs actually lock away substantial amounts of carbon. Baile Langan has also reduced energy use by replacing all incandescent bulbs with compact fluorescent lights. Light timers, motion detectors and natural light that shines in through the large windows keep the cottages bright and efficiently illuminated. Low flow toilets, shower heads and faucet aerators keep water use at a minimum. No chemical fertilizers, pesticides or herbicides are used for gardening or lawn care. When guests arrive at Baile Langan they are greeted with a friendly smile and given a booklet instructing them on recycling, waste separation and water reduction practices at the cottages. They also receive a cookbook with recipes calling for herbs hand-picked from the gardens beside each cottage.

Nu-Air Ventilation Systems Inc., Windsor – Energy efficiency while breathing easy



Nu-Air Ventilation Systems Inc. of Windsor, Nova Scotia is a leading manufacturer of high quality Heat Recovery Ventilators (HRVs) for residential and light commercial use. They are also one of six companies who had partnered with the Government of Canada through the Climate Change Action Fund to develop advanced integrated comfort and air quality products that meet stringent design and performance standards. The integrated system Nu-Air has developed uses state of the art technology and synergies of integration to more efficiently provide ventilation, space heating/cooling and domestic hot water in residential buildings. The system directly conserves energy by heating water and spaces more efficiently. With the Nu-Air HRV, both the exhaust and incoming fresh outdoor air streams pass through a core, and the heat from the exhaust air is used to pre-heat the incoming air stream. Only the heat is transferred; the two air streams remain physically separate. Typically, such a system is able to recover 70 to 80 percent of the heat from the exhaust air and transfer it to the incoming air. This dramatically reduces the energy

needed to heat outdoor air to a comfortable temperature and to maintain healthy indoor air quality. Nu-Air's Advanced Integrated Mechanical System (AIMS) provides an innovative means of air handling, including energy efficient intelligent motors, energy efficient uninterrupted frost-free ventilation, and an advanced hot water coil design. All these components combine to give space heating or cooling, hot water and continuous ventilation with heat recovery in one compact, energy efficient footprint. The Nu-Air facility is heated using its own technology to reduce heating costs. T8 fluorescent lighting, LED exit signs, and LCD computer screens are employed to reduce energy consumption. All faucets have aerators to keep water use at a minimum. Computer programs are also used in sizing and placing items on sheet metal to minimize waste. Pallets are customized for shipping to reduce space and packaging needs, and scrap wood is bundled for kindling for employees. Nu-Air is implementing lean manufacturing for all its products.

Frito Lay Canada, New Minas – Chipping in on waste reduction



The Frito Lay plant in New Minas, Nova Scotia opened in 1959. The 120,000 square foot facility currently employs 140 in a 3-shift, 5 day/week operation and produces a variety of value added snack food products from corn meal and locally grown potatoes. The Frito Lay manufacturing plant in New Minas benefits from expertise and knowledge sharing within the Frito Lay network of plants. Energy and wastes are carefully tracked at all company plants and compared, ensuring that good performance is identified and emulated and that not so good performance is identified and improved. The company has undertaken numerous improvement projects in the past and has several underway at the present time. Some of these include replacing all of their large motors

with high efficiency variable speed drive units, installing automated control valves to control the water used for cleaning, installing a new drying system to increase the value of their starch by-product, replacing all T12 fluorescent lamps with T8's, installing a solar wall to preheat make up air and installing a cyclone to capture seasoning that was being lost in the product cooling process. An Eco-Efficiency Opportunity Assessment identified several additional opportunities for improvements. The first, involves utilizing used vegetable oil from their frying operation as a fuel. By blending it with no. 2 fuel oil, they could reduce their use of purchased fuel oil by 90,000 litres, a net saving of more than \$40,000. The second major opportunity involves recovering waste heat from their fryer exhaust system. By installing a glycol heat recovery loop the energy equivalent of 300,000 litres of oil could be recovered. This would lead to a reduction of GHG emissions of 900 tonnes annually. In Canada, Frito Lay has established a national Resource Conservation Team whose goals are to work with the Canadian manufacturing facilities to aggressively reduce/eliminate the use of non-renewable resources. The company is working effectively to introduce new technologies to reuse waste for energy.

Royal & SunAlliance, Dartmouth – Insuring a green future



Located on Garland Avenue is Burnside's first Leadership in Energy and Environmental Design (LEED) constructed building. This newly completed "green" building is the home of Royal & SunAlliance Insurance (R&SA) who have been based in the Atlantic region for over 40 years. R&SA was committed to a sustainable building design that reflected its values and promise to the community. Specific goals for the new building included maximizing energy and resource efficiency, improving indoor air quality, and using daylight as the primary ambient light source. All areas of construction were dedicated to the adage "Reduce, Reuse, and Recycle". Approximately 25% of the material used in the building are made from recycled content; more than 20% of which was sourced locally to reduce transportation energy and fuel use. Great effort was made to

reduce the amount of furniture sent to landfill. Excess furniture from other R&SA offices was donated to various local groups including schools, non-profits and R&SA brokers. Furniture that could not be reused was given to Green Standards of North America. Work stations are very bright, open and spacious. All offices and training rooms include glass partitions to allow natural light to reach inner spaces. Lights are connected to occupancy sensors that automatically shut off when no one is present. The energy-efficient building design will deliver a 37% improvement in energy efficiency over the Model National Energy Code of Canada for Buildings. This will reduce CO2 pollution by approximately 250,000 kg per year. Low emission paints and adhesives were used during construction. Water saving devices such as low-flush toilets help reduce water usage. CO2 sensors in the air handling system automatically detect which areas need fresh air. R&SA is continuing to pursue ways to ensure a green future. They specify "green" cleaning products and consumables, recycle office waste and have an organic waste stream.

U.J. Robichaud TIMBR Mart, Meteghan Centre – Building a green future



This is their 140th year as a family owned business. They were recently awarded an Entrepreneurship Award for Excellence within the Francophony of Nova Scotia. The company's decision to take the necessary steps to make their operations more energy efficient has decreased their ecological footprint and reduced the amount of waste produced, thus creating a better environment for their employees and for the community as well. Switching to CFLs cut down on the amount of energy used and resulted in a savings of approximately \$1400 per year. The installation of additional wall insulation and two new skylights cut down on heating costs and add natural lighting to the store. The use of a fuel additive "Freedom" in company trucks decreased the

amount of emissions produced, lowered vehicle maintenance, and created a 10% gain in overall fuel efficiency and mileage. The store has discontinued selling oil-based paints and provides only latex-based paints as well as a large variety of eco-friendly products including non-toxic paint remover and wood treatment, insulation made from recycled newspaper, as well as cedar and arsenic-free treated lumber. Old pallets and wood scraps are used as a heat source for the three buildings on site and the sawdust produced during woodworking operations is given away. Communicating with costumers and vendors electronically has cut down on paper use and switching to LCD computer monitors has lowered energy use. U.J. Robichaud TIM-BR Mart is continually looking for ways to have a positive impact on the environment. They have recently rolled out the TIMBR Mart Energrade program to assist customers in making energy saving choices and they will be implementing technology that will allow them to email statements and invoices to customers, reducing paper and postage use further.