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"...maintaining our leadership on climate action and developing our natural resources in an environmentally sustainable manner..."
British Columbians want responsible economic growth and fiscal discipline so that we don’t burden future generations. B.C.’s green economy provides this foundation for a secure tomorrow, through investments and job creation throughout the province.

By maintaining our leadership on climate action, and developing our natural resources in an environmentally sustainable manner, B.C.’s green economy is poised to play a crucial part in the BC Jobs Plan.

The liquefied natural gas (LNG) industry represents an incredible opportunity for our province to create jobs and provide economic benefits for all British Columbians. B.C. has also committed to having the cleanest LNG operations in the world, and we have a focused strategy with strong policies aimed at creating investments and helping realize a green economy.

LNG has the power to transform B.C.’s economy by creating over $1 billion in new economic activity and adding 100,000 new jobs throughout the province, in sectors from construction, to trades, to high-tech.

We will continue to be a leader in North America on the green economy by working together with British Columbian families, communities and businesses.
"B.C.’s green economy will continue to play an important role in protecting the natural values of our beautiful province..."
Message from the Minister of Environment

As Minister of Environment, it is my job to ensure our environment is protected, while also balancing the need for economic development. The BC Jobs Plan reaffirms how our climate action policies will drive innovation and economic outcomes. Even as we face challenging global economic conditions, we are maintaining our climate leadership, which is marked by the revenue-neutral carbon tax, the achievement of B.C.’s Carbon Neutral Government commitments, and a suite of initiatives supporting action in every sector of the economy and in all regions of the province.

As B.C. explores the role of natural gas, the aim is to strike a balance between the need for jobs and development opportunities in rural British Columbia, with environmental sustainability and the reduction of emissions on a global scale. B.C.’s green economy will continue to play an important role in protecting the natural values of our beautiful province, while ensuring people have jobs and can provide for their families.
Leading Climate Action

British Columbians care about the environment – it is a value that underpins life everywhere in the province. Our citizens, our industries and our governments work together constantly to improve environmental protections and develop the innovations that are forging a path to a more sustainable future for the world. That’s why British Columbia is consistently recognized, both nationally and internationally, as a leader on climate action.

B.C.’s revenue-neutral carbon tax was called a “text-book” example of how to get carbon pricing right by the Organization for Economic Cooperation and Development. Our leadership on the fight against climate change has been profiled in the Economist, the New York Times, the LA Times and the Guardian.

While there has been doubt about B.C.’s ability to balance environmental and economic issues, we have seen our GDP and population increase, while the emissions that cause climate change have decreased. British Columbians are buying less fossil fuels. Our green economy continues to grow. We are creating more green jobs. We are proving that climate action works.

As the economic downturn continues to affect the world, we have also seen climate leadership lagging internationally. This requires us to take stock of our own efforts here in B.C. It is clear that the imperative for action is becoming stronger – climate action is at a critical juncture around the globe – and as a recognized leader, B.C. can always strive do more.
THAT’S WHY IN 2013, B.C. SET OUT THREE PRIORITIES FOR CLIMATE ACTION:

1. *Strengthening the Government of B.C.’s leadership in reducing its own emissions.*

2. *Promoting B.C.’s policies internationally to achieve greater action on climate change.*

3. *Pursuing B.C.’s LNG operations as the cleanest in the world.*

We have made real progress on each of these commitments. In turn, this progress is helping us invest in the growth of B.C.’s green economy.

**B.C.’S RECORD OF LEADERSHIP**

- North America’s first revenue neutral carbon tax.
- 93 per cent clean and renewable electricity generation.
- North America’s first Carbon-neutral Government.
- A Climate Action Charter with local governments.
- An Adaptation Strategy to prepare for climate impacts.
- Climate action in every economic sector, including standards for low-carbon fuels, landfill gas capture and green buildings.

**WHAT SUCCESS LOOKS LIKE**

- A transportation system that reduces distances driven and is powered by clean energy.
- Efficient infrastructure that uses clean energy to deliver power to the grid.
- An innovative waste system with full recycling and composting, and complete landfill gas capture.
- A forest sector with more trees that are growing faster and living longer.
- Electricity that is 100 per cent clean.
- Environmentally sensitive industries that are efficient, use clean energy and capture their own emissions.
Government Leadership

The Government of B.C. understands that leading by example is the best way to encourage families and businesses to take responsibility for climate action. That’s why we became North America’s first carbon-neutral government in 2010. This meant adopting clean technologies and new strategies to reduce the carbon emissions produced by our own government operations, while purchasing offsets to help fund climate action projects across the province to account for any remaining carbon emissions.

BY BECOMING CARBON-NEUTRAL WE WERE ABLE TO:

- Engage over 300,000 public sector employees about the importance of climate action.
- Reduce our overall emissions, while finding savings on the $400 million we spend each year on energy.
- Demonstrate the importance of clean technologies in communities across B.C.

IN 2013, THE GOVERNMENT OF B.C. COMMITTED TO STRENGTHENING OUR CLIMATE LEADERSHIP. SINCE THEN WE HAVE:

- Reduced the costs of our offsets program and dissolved the Pacific Carbon Trust.
- Integrated our offset program into the Climate Action Secretariat so that our investments are focused on overcoming the key barriers to reducing emissions and growing our green economy.
- Expanded our Carbon-neutral Capital Program so that schools, universities, colleges and hospitals can reduce energy costs and use innovative clean technologies.

The Government of B.C. is not alone in taking action. 182 local governments have signed a Climate Action Charter that commits them to leadership on climate action and the green economy, including efforts to lower corporate emissions. We have helped more than 30 local governments become carbon neutral by reducing their emissions, deploying clean technologies, and investing in climate projects across B.C.
As our governments have strengthened their leadership on reducing our carbon footprint, businesses across B.C. have followed suit, including:

- Travel providers like Helijet and Harbour Air.
- Hotel chains like Coast Hotels.
- Financial institutions like HSBC and Vancity.
- The 550 businesses that have participated in the ClimateSmart program.

TURNING LANDFILL WASTE INTO ENERGY

- The Columbia-Shuswap Regional District is using an innovative approach to reduce carbon emissions at the Salmon Arm Regional Landfill, while also turning waste products into useable energy. The project involves capping and closing a portion of the landfill that protects over 350,000 tonnes of waste. This will contain the harmful landfill gases produced by decomposing organic waste.
- This landfill will now capture, refine and distribute energy into FortisBC’s natural gas pipeline, where it is used to heat homes and businesses in the community.
- In total, the project will remove approximately 150,000 tonnes of methane from the atmosphere by 2026.
- In 2012, the Columbia-Shuswap Regional District (CSRD) won a Federation of Canadian Municipalities Sustainable Community Award, in the "waste" category, for its Salmon Arm landfill project. The CSRD also won a provincial award for the landfill offset project in 2012 at the Union of British Columbia Municipalities, for Leadership & Innovation, Climate Action.

Photo courtesy of: PCT
Climate change is a global issue – while there are many nations, there is only one planet. We all contribute to climate change and are all affected by its impacts. To effectively battle it, we must help coordinate broader international efforts to adopt practices that protect the environment. That’s why B.C. is committed to international leadership on climate action.

Encouraging our trading partners to adopt similar climate policies protects B.C.’s economic competitiveness on the world stage. Our province cannot win the battle against climate change alone. But we can lead, and work together to reduce global pollution while building a strong and sustainable economy.

That’s why in 2013 B.C. committed to promoting our climate policies internationally. In the fall of that year, B.C., Washington, Oregon and California signed the Pacific Coast Action Plan on Climate and Energy. This agreement commits our jurisdictions to coordinated and collaborative action on climate change, including putting a price on carbon. Both B.C. and California have already created effective carbon-pricing policies, and now Washington and Oregon have committed to following suit.

Taken together, these four jurisdictions represent the fifth-largest economy in the world. It is an approach that was profiled in a New York Times editorial as a model for the world. By standing united against climate change, we are sending a strong signal that climate action must become a priority for the rest of the globe.

We are already seeing momentum in terms of the implementation of climate policies internationally. In January 2014, Mexico adopted a carbon tax. Carbon-pricing efforts continue to advance across the European Union, including France introducing a carbon tax this year. Asia is also seeing new growth in carbon-pricing systems across Japan, South Korea, and China. The world is paying attention to our leadership on climate action because we have proven that it can work, both economically and environmentally.
COLLABORATING TO COMBAT CLIMATE CHANGE

The leaders of B.C., California, Oregon and Washington signed the Pacific Coast Collaborative’s Action Plan on Climate and Energy in 2013, committing our governments to a comprehensive, far-reaching and collaborative strategy to combat climate change and promote clean energy.

Through the Action Plan, the leaders agreed that all four jurisdictions will account for the costs of carbon pollution and that, where appropriate and feasible, we will link our climate-action programs to create consistency and predictability for the families and businesses across this region of 53 million people.

CARBON PRICING AROUND THE WORLD
Cleanest LNG

British Columbia’s LNG strategy is focused on realizing the economic opportunity of a generation. Our strategy is also founded on a commitment to maintain our leadership on climate action and clean energy.

In 2013, B.C. committed to ensuring that our LNG operations are the cleanest in the world. To meet this goal we will:

- Require that facilities meet the strongest requirements for local air quality in the world.
- Maintain the carbon tax as the strongest incentive to reduce emissions.
- Work with industry to understand the design and operation of their facilities so that they can invest now to reduce future emissions.

LNG IS A GLOBAL SOLUTION

LNG is changing global energy systems, and as a transition fuel it represents a real step towards a low-carbon economy.

By switching from coal-fired electricity to natural gas, the United States (U.S.) has been able to reduce net greenhouse gas emissions by 166.8 million tonnes. China’s decision to increase its use of natural gas from four per cent to eight per cent could eliminate 93 million tonnes of emissions each year – more than B.C.’s total provincial emissions.

It only makes sense for B.C. to want to be part of this positive global story, and we will do so in a way that maintains our environmental responsibilities.
TRUCK FLEETS POWERED BY LNG

FortisBC is currently helping companies across the province convert their fleets to trucks powered by liquefied or compressed natural gas, including companies like BFI Canada and Waste Management. In 2011, FortisBC built a temporary LNG fuel station for Vedder Transport’s new fleet of 50 LNG-fuelled trucks, and they are working to complete a permanent LNG fuel station, which will be the first large-scale LNG fuel station in Western Canada. By converting to LNG-powered trucks, FortisBC is helping B.C. businesses save money on energy costs, while also reducing their greenhouse gas (GHG) emissions by 20 to 30 per cent.
"B.C. is demonstrating to the world how we tackle the big environmental problems facing our largest industries with smart, low cost, clean tech solutions."

JONATHAN RHONE, CLEANTECH CEO ALLIANCE
Growing the Green Economy

British Columbia’s green economy is based on the strong foundation of our natural resource industries, which provide a platform for the development and adoption of clean-technology innovations.

Following the Government of B.C.’s leadership on climate action, these industries are seeking new ways to preserve and protect the environment. This provides an incentive for the growth of our clean-technology sector, which creates green jobs and helps all of our traditional industries adopt innovative solutions to lower their impact on climate change. We are also sharing our clean-technology expertise with our trade partners around the globe, and exporting made-in-B.C. innovations that are helping modernize traditional industries in other jurisdictions.

The climate policies B.C. has implemented, and the funding we have provided for capital investments, offset programs and new technologies, are all contributing to the development of our green economy. As you will see in this report, the green economy is not just growing – it’s thriving.
Skills Training for Green Jobs

The growth of B.C.’s green economy depends on having a workforce with the cutting-edge skills and knowledge necessary to guide its development. The following are just a few examples of how government, businesses, educational institutions and non-profits are coming together to create skills-training opportunities for the green jobs of the present and future.
CityStudio focuses on real-world projects and on-the-ground training for urban sustainability leadership. Based in Vancouver, the project is the first of its kind in Canada and is unique around the world. It is an engine for innovation, teaching the skills green-job seekers will need to develop projects that protect the environment in Vancouver and other cities around the globe. CityStudio is a community-driven partnership between the City of Vancouver, the Vancouver Economic Commission and six local public post-secondary institutions. Since 2011, CityStudio has involved 1,256 students and 39 faculty members in 51 courses on six campuses across Vancouver.

| Photo courtesy of: CityStudio |

The Foresight Cleantech Accelerator Centre is a Canadian not-for-profit with a mandate to help make Western Canada a leader in clean-technology entrepreneurship. In partnership with the B.C. Innovation Council, Foresight jumpstarts the commercialization process by providing entrepreneurs with business guidance, targeted expertise, and access to both business and capital networks. A great idea for clean technology only makes an impact once it is put to use. That’s why Foresight helps teach the business skills necessary to get these innovations to market faster.

| Photo courtesy of: John Green |

The University of British Columbia, in collaboration with Vancouver-based Nexterra Systems and GE Energy/Jenbacher Ltd., has created a biomass-fuelled heat and power research project that aims to generate enough clean electricity to power 1,500 homes, while reducing UBC’s consumption of natural gas. The facility itself is designed and constructed using cross-laminated timber panels, a renewable alternative to steel/concrete construction. This facility is part of UBC’s Living Laboratory Initiative, which uses the entire campus as a platform to teach about the technological, environmental, economic and societal aspects of sustainability. The initiative creates opportunities for learning and research on actual working clean-technology projects, helping students and innovators gain skills that support the growth of B.C.’s green economy.

| Photo courtesy of: Don Erhardt |
Natural Gas

B.C.’s natural gas industry is booming, producing a cleaner burning energy that can help industries in emerging markets transition away from high-emission sources of power. As exemplified by the following case studies, the significant recent investments in this industry are creating opportunities to deploy clean-technology innovations that will help reduce the environmental impacts of natural-gas development.
GROWING GREEN JOBS

CAPTURING CARBON EMISSIONS

Inventys Thermal Technologies is a clean-technology company that is commercializing the lowest cost and most energy efficient technology for capturing post-combustion carbon dioxide from industrial flue gas with their VeloxoTherm™ process, which is used for CO₂ Enhanced Oil Recovery (EOR) and Carbon Capture and Storage. EOR involves injecting CO₂ into oil wells, causing trapped oil to easily flow to the surface, while permanently sequestering the CO₂ underground. Inventys is currently planning several pilot plant demonstration projects in Canada, the United States, and the United Kingdom. Recently, Inventys welcomed Dr. Stephen Chu, the former U.S. Secretary of Energy and Nobel Prize winner, to their team.

LESS EMISSIONS, MORE NATURAL GAS

Pneumatic devices are widely used in B.C.’s natural gas sector. During operation they vent methane, a major source of GHG emissions. B.C. and the Canadian Association of Petroleum Producers came together to design a study that would confirm the levels of emissions associated with pneumatic devices. This industry-funded study was the first of its kind, and involved field tests of 750 separate devices. The study provided credible data that now helps the industry reduce emissions from these devices, while also lowering costs from lost natural gas.

Electricity demand in the south Peace/Dawson Creek area is growing at an unprecedented rate, due to natural-gas exploration and development in the nearby Montney shale gas deposits. The Dawson Creek/Chetwynd Area Transmission project will help to meet the demand by doubling the system capacity in the area. This project will enable these operations to connect to the B.C. Hydro system, which reduces GHG emissions in the process. Construction is underway, with completion expected in 2015.

| Photo courtesy of: Spectra Energy | Photo courtesy of: Prasino Group |

ELECTRIFYING NORTHERN B.C.
Transportation

As Canada’s gateway to the Pacific and the U.S. west coast, transportation is big business here in B.C. Our economy relies on this industry to get our goods to market, but transportation has an environmental cost as well. The following examples highlight some of B.C.’s incredible clean-technology innovations that are helping the transportation industry here and elsewhere reduce its impact on climate change.
**BIODIESEL ON THE GO**

The BioCube™ is a biodiesel mini-refinery engineered within a 20 foot sea container. It is transportable, can operate independently from the electricity grid and produces commercial quantities of biodiesel from a wide variety of vegetable oils. Given suitable feedstock, biodiesel from the BioCube meets ASTM criteria and can be used directly to fuel any modern diesel engine without modification. With semi-automated systems designed for ease of use, the BioCube is built to stringent Canadian safety standards, costs around 10 per cent of the cheapest mid-sized refinery, takes up a fraction of the space and is ready to use from day one. For communities and commercial enterprises seeking sustainable energy independence, the BioCube makes distributed biodiesel processing accessible and affordable. It operates close to the point of harvest and consumption, eliminating the costs and pollution typically associated with transportation.

**HEAVY DUTY BATTERIES**

Corvus Energy is emerging as a global leader in the production of state-of-the-art, high-powered, lithium-ion battery systems for heavy-duty and industrial applications. Founded in 2009, the company designs and manufactures all of its products in Richmond, B.C. Originally developed to prevent tugboats from wasting fuel while waiting for work, Corvus’ batteries are now used in airport vehicles, 18-wheelers and even for car-carrying ferries in Norway. Photo courtesy of: Corvus

**USING GPS TO REDUCE EMISSIONS**

Representing a partnership between Port Metro Vancouver, the Ministry of Transportation, and Infrastructure and Transport Canada, the drayage fleet project is installing GPS units in the Port’s privately owned container truck fleet to collect data on trip movements and wait times. This information is being used to develop programs that will increase efficiency by reducing travel distances and times, which results in fewer emissions. To date approximately 1,000 drayage trucks, or 50 per cent of the fleet, have been equipped with GPS units.
Forestry

Forestry is one of B.C.’s foundational industries and most important renewable resources. B.C. is a world leader on responsible forestry practices and forest conservation, and is driving the development of innovative uses of forest products to help produce renewable energy and green buildings. The following examples highlight some of the recent successes in B.C. forestry’s fight against climate change.
GROWING GREEN JOBS

WOOD WASTE BECOMES FUEL

Lignol Energy Corporation (LEC) is an emerging producer of biofuels, biochemicals and renewable materials from bio-based, non-food feedstocks. LEC is leveraging its expertise in biorefining with its recent investments in a large-scale biodiesel plant in Australia, and a closed-loop biodiesel program with McDonald’s restaurants in Asia, with prospects of substantial financial returns. In parallel, LEC’s subsidiary, Lignol Innovations Ltd., has become a leader in biorefining process development, with proprietary technology and intellectual property for converting biomass into bio-products. They are currently working to introduce new technologies that will help turn the waste from B.C. forestry products into useable fuels like biodiesel, creating a source of renewable energy that can serve a variety of industrial purposes.

| Photo courtesy of: Lignol |

GREEN BUILDINGS IN CHINA

The Canada Wood Group was created in 2003 to help introduce innovative solutions in wood construction overseas, aiding Asian nations in addressing environmental challenges such as energy efficiency, reducing carbon emissions as cities grow, and obtaining green building materials. They are currently working with China’s Ministry of Housing and Urban Rural Development to introduce energy efficient wood-frame construction technology into China’s new city developments, as well as collaborating on mid-rise and hybrid wood solutions for Chinese ‘eco-cities.’

| Photo courtesy of: COFI |

OFFSETS HELP RESTORE B.C.’S FORESTS

The B.C. Forest Carbon Partnership Program uses private-sector investments to fund ecosystem restoration and reforestation on Crown land. This innovative program could see more than one million trees planted in the province over the next five years, helping to restore forests devastated by wildfire and the mountain pine beetle infestation, while reducing B.C.’s carbon footprint. Under the program, corporate investors pay to plant trees – which store carbon and lower GHG levels – and then receive a carbon offset credit to account for their own emissions. This provincial program is being overseen by the Carbon Offset Aggregation Cooperative, an independent organization set up to manage both the investments and subsequent carbon credits. The organization will use the carbon offset credits for long-term replanting and forest management activities across B.C.
Agriculture

With an abundance of fertile land across the province, agriculture is an important part of many B.C. communities and a key driver of our economy. As you will see in the following case studies, our agriculture sector is continuing to modernize by taking advantage of clean-technology innovations and new strategies for more sustainable farming.
The BC Agrifoods Innovation Strategy is designed to increase profitability by encouraging the agrifoods industry in B.C. to focus on the “innovation continuum,” which helps move great ideas from research and development, to pilot programming, through to the commercialization and adoption of new products, processes and practices. The Ministry of Agriculture produced this Innovation Strategy to help shape the policy and programs for agriculture innovation under the Growing Forward 2 program.

Funding is available to support industry, academia, retailers and others in late-stage research and pilot projects that lead to the commercialization and/or adoption of innovative products, technologies and practices. B.C.’s agrifoods sector provides 61,600 jobs and generated $11.7 billion in provincial revenues in 2012.

Vancouver-based Ostara helps protect precious water resources by changing the way cities around the world manage excess nutrients in wastewater streams. The company’s technology recovers phosphorus and nitrogen at municipal and industrial wastewater treatment plants, and then transforms them into a high-value, eco-friendly fertilizer, called Crystal Green®. The process helps treatment plants reduce nutrient management costs and meet increasingly stringent discharge limits, while Crystal Green’s innovative plant-activated mode of action improves crop yield and performance, as well as reducing the risk of nutrient leaching and runoff. Ostara operates facilities throughout North America and Europe, and is the recipient of numerous awards, including a World Economic Forum 2011 Technology Pioneer, the Global Cleantech 100 and Deloitte’s Technology Green 15.

Photo courtesy of: Ostara
Mining

B.C. mining is a primary driver of our economy and creates good jobs for B.C. families, all while adhering to our world-leading standards for responsible mining. The success of this sector means more opportunities for mining companies to invest in clean-technology and adopt new strategies for reducing waste, like the ones highlighted here.
MineSense® Technologies develops innovative solutions to the inefficiencies of the mining industry. These solutions increase profitability while producing environmental improvements for a broad range of mineralogies. MineSense offers a sensing and sorting technology platform for the detection and rejection of waste from ores at unprecedented sensitivities. These solutions provide significant economic and environmental benefits, including increased energy efficiency, reduced emissions and potentially valuable carbon offsets for mines.

| Photos courtesy of: MineSense

In 2013, Ganesh Ramanathan, a masters student from UBC’s Sauder School of Business, created a detailed database of waste rock dumps at mine sites across Canada, Australia and elsewhere, through the BCIC-Mitacs Commercialization Voucher Program. The research involved identifying and analyzing waste rock dump recovery opportunities at mine sites and prioritizing them based on various techno-economic and environmental factors. A business plan was developed that highlighted the market opportunity and the potential economic and environmental benefits that a recovery operation will bring to the local population, mine custodians, governments and the community at large.

Samples from chosen mine sites in the database were lab-tested to check for amenability of rocks to the MineSense sensing and sorting technology. A field trial was then performed at a waste rock dump in Timmins, Ontario to confirm the lab test results, as well as to showcase the effectiveness of the MineSense solution. This is a major milestone in the commercialization of MineSense products for recovery-centered mining operations. MineSense is currently in discussion with more mine sites and governments to identify waste rock dumps that need immediate remediation.
Clean Technology

B.C.’s world-leading clean-technology sector is the heart of B.C.’s green economy. By working with partners in our traditional industries, entrepreneurs across B.C. are developing innovative solutions that protect the environment while enhancing economic competitiveness. The following success stories highlight just a few of the exciting innovations recently developed in B.C.
HELPING FAMILIES
SAVE ENERGY

Founded in 2005 by students from UBC, Energy Aware helps homeowners save energy by turning their house into an “intelligent home.” This is achieved using Neurio, a simple mass-market technology that makes homes and their appliances smarter and more energy efficient. Neurio, along with its mobile app Wattson, report in real-time how much power the homeowner is using at an appliance level, revealing insights into problems and usage patterns. Wattson beta users have saved up to 44 per cent off their energy bills by identifying what they should turn off or unplug. The company recently raised more than $260,000 in financing using the innovative Kickstarter crowd-sourced funding platform, far exceeding their initial $95,000 target.

INNOVATIVE SOLUTIONS
FOR WATER TREATMENT

Saltworks Technologies designs and delivers innovative water-treatment solutions for demanding applications. Headquartered in Vancouver, Saltworks offers desalination and water-treatment technologies that cost less, provide greater reliability, and reduce environmental impact. Their technologies are used by a range of industries around the world, including oil and gas, mining, chemical production, food and beverage, and aerospace. Applications for Saltworks’ products include industrial wastewater treatment, brine treatment and volume reduction, solids production, desalination of low and high salinity waters, and heavy-metals removal. Saltworks was recognized in 2012 as one of the Cleantech Group’s Global CleanTech 100.

RENEWABLE
WIND ENERGY

Endurance Wind Power is a leading global manufacturer of small and midsize wind turbines that are used in distributed power generation for farms and businesses, as well as municipal, academic and industrial facilities. Serving growing markets in the United Kingdom, Italy, the United States and Canada, this homegrown B.C. company manufactures in Surrey, B.C. and Worcestershire, UK. Among the company’s recent accolades, Endurance CEO Glenn Johnson won Ernst & Young’s Entrepreneur of the Year, Pacific Region 2013 award. Employee-owned and engineering-driven, the international team at Endurance is focused on their vision to make clean-energy generation a reality everywhere the wind blows.

| Photo courtesy of: Energy Aware | Photo courtesy of: Ben Sparrow | Photo courtesy of: Endurance |
Communities

Our communities take pride in B.C.’s spectacular natural beauty and clean air. That’s why more and more communities across the province are adopting strategies and clean-technology innovations that protect the environment and combat climate change. The following examples speak to some of the exciting recent developments in eco-conscious B.C. communities.
SHARING ENERGY TO LOWER EMISSIONS

The Whistler Athletes Village uses a District Energy Sharing System (DESS) as the primary energy source for heating, cooling and domestic hot water, by extracting low-temperature energy from the Whistler Village Sewage Treatment Plant. The DESS is designed to accommodate a future community of 400 residential units, as well as their ancillary services.

To date, the DESS has shown a 47 per cent reduction in energy requirements compared to traditional natural-gas heating systems, and a 39 per cent reduction compared to electric systems. By recovering heat from wastewater, this system has reduced typical emissions by 285 tons – a 57 per cent reduction – and earned the prestigious Canadian Association of Municipal Administrators Environment Award in 2009.

Community across B.C. are beginning to implement curbside organic composting programs. In addition to lessening the burden on the province’s landfill sites, diverting household organic waste into a centralized community composting system significantly reduces GHG emissions, by eliminating the methane produced by organic materials as they decompose in landfills.

By measuring the resulting impact to GHG levels, local governments are able to make progress on their Climate Action Charter commitments to carbon neutrality. The carbon pollution that is avoided can be used to balance a local government’s GHG footprint.

B.C. communities are now also beginning to investigate new technologies that will allow for energy to be extracted from the diverted organic material and used to power corporate operations, further reducing their GHG footprint.

Photo courtesy of Metro Vancouver
B.C.’s $14.3M Clean Energy Vehicle Program has been instrumental in increasing market uptake of clean-energy vehicles fuelled by electricity, natural gas or hydrogen. In partnership with an extensive network of organizations, businesses, academic institutions and communities, the program delivered incentives for vehicle purchases and charging infrastructure deployment. These partnerships have leveraged investments of over $40 million in B.C.’s economy. We now lead the nation in clean-energy vehicle (CEV) sales per capita, and have the largest electric vehicle charging and hydrogen fuelling networks in Canada. This newly installed infrastructure, and the committed engagement of our partners, has formed a solid foundation that will enable greater CEV adoption by the public and our industries in future years.

In April 2013, B.C. became the first jurisdiction in Canada to adopt both the new National Building Code energy-efficiency requirements for housing and small buildings, and the National Energy Code for Buildings that applies to large buildings. B.C. also adopted the ASHRAE 90.1 (2010) standards for large buildings, making us the Canadian leader in energy efficiency across all building types. The new requirements for large buildings came into effect in December 2013, while the new requirements for housing and small buildings will come into effect in December 2014. Taken together, these new measures will significantly reduce the amount of energy used and GHG emissions generated by new construction in B.C.