

## **Backgrounder: B.C. Green Party Climate Leadership Strategy**

In 2008, B.C. became a global leader in climate action. The province developed a bold climate action plan to meet ambitious targets, guided by experts. It was grounded in science, based on reliable evidence and included a suite of measures that were predicted to take B.C. well over halfway to meeting its targets.

Under Christy Clark's B.C. Liberal government, B.C. has moved backwards. Of Canada's four most populous provinces, only B.C. is projected to increase its emissions by 2030.<sup>1</sup> The Clark government has frozen the price of carbon, ignored the recommendations of their own Climate Leadership Team and left the cleantech sector out to dry with no support. They have invested heavily in LNG and approved oil pipelines, hinging B.C.'s economic future on the sunset industry of fossil fuels.

British Columbians have been left without much credible opposition on the climate front. In 2009, the B.C. NDP ran on "axe the tax," and they support new fossil fuel projects like LNG. In 2017, their climate plan only commits to doing what is required by the federal government, and does not include a concrete plan for achieving their targets for 2030.

Climate change is not just an environmental issue. Acting on climate is about positioning B.C. to succeed in the emerging economy of the future and the world that we will leave for our children.

We have a moral imperative to leave the world better off than we found it. If we don't, future generations will ask why B.C., one of the places that had the most opportunity to be a leader on climate change, refused to act.

A B.C. Green government will take bold action on climate change that will position B.C. to be a leader in the low-carbon economy.

### **Meeting our emissions targets**

The *Greenhouse Gas Reduction Targets Act (GGRTA)* came into force in January 2008. GGRTA set legislated targets for reducing greenhouse gas emissions by 33 percent below 2007 levels by 2020, and 80 percent below 2007 levels by 2050.

The Climate Leadership Team (CLT) acknowledged B.C. will not meet its 2020 targets. They recommended an interim target of a 40 percent reduction below 2007 levels by 2030. The B.C.

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<sup>1</sup> <https://www.pembina.org/pub/bc-emissions-2030-infographic>

Green Party believe that this is a realistic target that can be met with immediate and decisive action.

## Reducing emissions

### 1. A B.C. Green government will amend the Greenhouse Gas Reduction Targets Act to reflect an interim target of 40% reduction below 2007 levels by 2030.

- Beyond 2030, the B.C. Greens emissions reduction strategy (ERS) is designed to meet the legislated requirement of 80 percent below 2007 levels by 2050. Table 1 indicates what this means in terms of actual reductions from 2014 levels.
- To meet our 2030 target, we must reduce emissions of greenhouse gases by 24.7 MT, or by an average of 1.9MT per year.

Year	Target	Actual Emissions (MT <sup>2</sup> )	Permitted Emissions (MT)	Emission Reductions Required based on last actual (MT)
2007	Base year	66.3		
2012	-6%	63.7	62.3	4.0
2014	N/A	64.5	N/A	N/A
2030	-40%	N/A	39.8	24.7 <sup>3</sup>
2050	-80%	N/A	13.3	26.5

### 2. A B.C. Green government will progressively increase the carbon tax by \$10 per year for four years beginning January 2018.

- Putting a price on carbon is widely acknowledged as the best tool for promoting reduced carbon emissions. However, since the BC government froze the price of carbon in 2013, the effectiveness of the carbon price has diminished.
- Predictable, planned increases will give businesses the certainty they need to successfully navigate the transition to a low carbon economy.
- If the carbon tax is working properly, then revenue from the tax should go down as less carbon is emitted. This gives a short-term gain in revenues, which should be invested to facilitate the low carbon economy. The current carbon tax is theoretically revenue neutral, meaning that the revenue is returned to businesses and consumers in the form of reduced tax rates. Recent studies have shown that the BC carbon tax is not all being returned in the form of reductions and can no longer be considered revenue neutral.
- Table 2 details our proposed emission rates.

<sup>2</sup> MT = Megatonne. A Megatonne is equal to one million metric tonnes

<sup>3</sup> Reduction required from 2014 level, which was higher than 2012

**3. A B.C. Green government will, starting on January 1, 2018, extend the carbon tax to fugitive and vented emissions. The initial rate will be \$10 per tonne rising to \$50 per tonne by 2021.**

- Fugitive sources are unintentional emissions from the production, processing, transmission, storage and delivery of fossil fuels, as well as the intentional combustion of fossil fuels not used to generate useful heat or electricity. Oil and natural gas production and transmission, and coal mining are the emitting sectors.<sup>4</sup>
- Fugitive methane emissions constitute 10% of B.C.'s greenhouse gas emissions from the natural gas sector.<sup>5</sup> Vented emissions constitute 9%. Currently, the British Columbia carbon tax does not apply to fugitive emissions. Technological advancements have made it easier to track and reduce fugitive emissions. Implementing a carbon tax on fugitive emissions will provide incentives to industry to employ technological advancements to reduce fugitive and vented emissions.

**4. A B.C. Green government will, starting on January 1, 2020, apply the fugitive rate for the carbon tax, \$36 per tonne, to forest slash pile burning.**

- In 2012, slash pile burning accounted for 15% of B.C.'s greenhouse gas emissions, or eight megatonnes of carbon dioxide.<sup>6</sup> In 2015, an estimated 5 million tonnes of forest fibre was burned in B.C.
- Expanding the carbon tax to slash pile burning will greatly reduce this source of emissions.

	Combustion \$/tonne	Fugitive \$/tonne
2017 (current)	30	0
2018	40	10
2019	50	23
2020	60	36
2021	70	50

**5. A B.C. Green government will establish an emissions reduction target for carbon neutral government and allow public sector agencies to invest in internal emissions reductions, rather than requiring the purchase external offsets to achieve carbon neutrality for government.**

- A key initiative under the 2008 climate action plan was carbon neutral government.
- Core government ministries as well as school districts, health authorities and other public sector agencies are required to minimise their emissions, and to purchase offsets for any emissions that occur.

<sup>4</sup> <https://www.ec.gc.ca/ges-ghg/default.asp?lang=En&n=3E38F6D3-1>

<sup>5</sup> <https://www.pembina.org/reports/pi-wellhead-to-waterline-goehnerhorne-022014.pdf>

<sup>6</sup>

<http://www.cbc.ca/news/canada/british-columbia/province-wide-slash-burning-sparks-controversy-1.36524>

- BC Greens consider the requirement to purchase offsets to be counter-productive, when the funding that would be used to purchase the offsets could be invested in emissions reductions in public sector facilities or operations.

## The pathways to greenhouse gas emissions reductions

We have identified many examples of actions that could be taken in order to reduce B.C.'s greenhouse gas emissions. It is not intended that all, or even most, of these initiatives will be employed. In implementing our emissions reductions strategy, we will employ those mechanisms that will deliver the lowest cost reductions first. The effectiveness of actions will be monitored and assessed on an annual basis, and policies adjusted accordingly in order to keep us on track to meeting our targets.

There are four pathways to reducing emissions:

- A. Behaviour change
- B. Efficiency
- C. Low carbon fuels and materials
- D. Sinks

### A. Behaviour change

How individuals behave, including their personal choices, and the perspective they bring to the workplace in terms of business philosophy and decision-making, and the values that public servants bring to their jobs in government will be fundamentally essential to meeting reduction targets. Our aim is to make it such that the carbon efficient choice is the default choice.

Behaviour change will not only reduce GHG emissions, it will also reduce lifecycle costs to businesses and consumers, and create economic activity through investments in public transport and alternative transportation infrastructure.

#### **6. A B.C. Green government will expand the provision of public information regarding ways to reduce carbon emissions; and, direct existing communications resources to make information and advice available to support the identification of low carbon options, their costs and benefits.**

- Knowledge and awareness are critical to behaviour change. However, social and cultural factors also play a key role. Information campaigns such as "Power Smart" are very effective in reducing consumption of electricity.
- This measure will expand these campaigns in order to support British Columbians to identify and adopt low-carbon options.

#### **7. A B.C. Green government will act to promote choices with a lower carbon footprint.**

- Energy efficient choices will only be made if there are other viable options available. In many cases market forces are still not leading to a ready supply of alternatives. Continued government action is required to address this, and to provide incentives for

the adoption of the low-carbon option:

**How will a B.C. Green government promote choices with a lower carbon footprint?**

Examples of initiatives include:

- Introduce a Zero Emissions Vehicle (ZEV) mandate to ensure a growing supply of electric vehicles in B.C.;
- Continue to provide incentives to purchase low or no emission vehicles;
- Introduce distance-based insurance; and transferable licence plates, where the second vehicle is zero emissions vehicle;
- Implement congestion and road pricing policies, and other initiatives that favour low or zero emission vehicles; examples of initiatives that may be considered include: tolls for gasoline or diesel vehicles; free parking for electric vehicles; half price ferry fares for electric vehicles.
- Expand the network of charging facilities to enable long distance travel
- Introduce Energy Performance Certification for residential properties, that verifies the GHG footprint of the property. Home buyers would then be able to assess the energy efficiency of a home as part of their purchase decision.

**8. A B.C. Green government will act to facilitate modal switching.**

- Modal switching includes using public transit, walking or going by bicycle rather than using a car.

**How will a B.C. Green government facilitate modal switching?**

Examples of initiatives include:

- Increasing investment, and providing more predictable funding for public transportation;
- Ensuring public transit fares are affordable;
- Ensuring the frequency of public transit service meets passenger needs;
- Increasing investment in walking and biking infrastructure;
- Facilitating ride sharing, car sharing and other cooperative transportation initiatives
- Ensuring there are charging and safe storage facilities for electric bicycles;
- Ensuring road configurations and commuter routes are friendly for pedestrians, cyclists and motorcyclists.

**B. Efficiency**

Increasing efficiency is key to reducing greenhouse gases. We can realize efficiency gains in several areas, including:

- Employing more energy efficient machinery and appliances
- Building efficiency
- Management of fugitive emissions especially oil and gas
- Energy efficient communities
- Enhanced efficiency of waste management

**9. A B.C. Green government will require commercial and industrial operators to ensure the efficient operation of equipment and vehicles.**

- About 30% of GHG emissions are from “stationary combustion” sources, stationary devices that combust solid, liquid or gaseous fuel to generate heat or electricity. Sources include boilers, combustion turbines, engines, incinerators and process heaters.
- Industry adoption of more energy efficiency machinery and practices is driven by the associated cost savings. Increasing the carbon tax will further incent the use of more carbon efficient technology.

**How will a B.C. Green government require the efficient operation of equipment and vehicles?**

Examples of initiatives include:

- Introduce mandatory emissions testing for heavy-duty and commercial vehicles.
- Introduce maintenance requirements for pipelines and enhance compliance and enforcement.
- Require the adoption of international efficiency standards.

**10. A B.C. Green government will act to ensure that new buildings are energy efficient; and, introduce measures to ensure that the up-front cost of an energy efficiency upgrade does not form a barrier to retrofitting existing homes and commercial facilities.**

- Promoting building efficiency in the residential and commercial buildings sector is more challenging, since the up-front capital costs can be a major disincentive for both new builds and retrofits. In addition, in the commercial sector there are split incentives to reduce emissions between owners and lessees.

### How will a B.C. Green government promote energy efficiency in residential properties?

Examples of initiatives include:

- Working with local governments to require that GHG emissions from new construction and major renovations are minimized in a manner that takes account of regional variations.
- Providing funding for independent energy efficiency audits of private dwellings, that include an analysis of the viability of alternative energy solutions to inform homeowners of the options available to them for reducing the GHG footprint from their dwelling.
- Facilitating the amortisation of the costs of renovations that reduce the GHG footprint of a home, through mechanisms such as on-bill financing, and repayment through property taxes.
- Implement a home retrofit program
- Introduce standards for commercial building GHG emissions
- Establish an incentive program for retrofits of commercial buildings

### 11. A B.C. Green government will promote efficient community design by enhancing requirements for integrated regional planning, and the consideration of the cumulative impacts on GHG emissions of regional and local government plans.

- Sprawl has been a feature of development in many cities across B.C., as people move out of urban centres in search of affordable accommodation. This creates headaches for transportation planning, especially the provision of cost efficient public transit.
- An efficient public transit system requires population density along major routes to be a key consideration in community planning.
- Efficient community design will also facilitate opportunities to implement district heating. Heat from natural sources such as geothermal resources; or heat generated using landfill methane emissions; or, waste heat from industrial sources, are potential alternatives to reduce fossil fuel use.

### How will a B.C. Green government promote efficient community design?

Examples of initiatives include:

- Introducing a requirement for community and regional urban containment areas;
- Requiring a full analysis of GHG implications and mitigation strategies in development applications;
- Requiring Official Community Plans to include a GHG emissions reductions plan;
- Providing expertise and support to communities for the implementation of district heating initiatives.

Linked initiatives that support efficient community design:

- A Green Government will develop a new 10-year transportation plan focused on affordable, clean transportation for British Columbians.
- A Green Government will support local governments' greenhouse gas emission reduction and adaptation initiatives by investing \$80 million over four years in green transportation infrastructure, building efficiency initiatives, and other qualifying initiatives.

## **C. Low carbon fuels and materials**

There are two major areas of opportunity for GHG reductions from the use of low-carbon fuels and materials: electrification and fuel switching.

Electrification involves the replacement of fossil fuel energy with clean electricity.<sup>7</sup> B.C.'s electricity is currently mandated to be 93% fossil fuel free. The fossil fuel component primarily consists of base load NG plants operating in Campbell River and Taylor, and BC Hydro on-gird plants in Prince Rupert and Fort Nelson. These emissions could be eliminated by replacing natural gas electricity generating plants with renewables.

### **12. A B.C. Green government will revisit the mandate of B.C. Hydro to optimise support for clean energy development, including grid storage for community or privately generated power.**

- There is plentiful opportunity to develop a thriving alternative energy sector, however, the current grid system, and B.C. Hydro's mandate are stifling its growth.

### **13. A B.C. Green government will work with neighbouring jurisdictions to expedite the phase out of thermal electricity generation.**

- B.C. can play a role in the reduction of Canadian emissions through integration of the electrical grid. This requires the construction of a transmission line to Alberta and the ability to export excess green power from B.C. to back out coal fired generation in Alberta.

### **14. A B.C. Green government will introduce progressively more stringent requirements to adopt low carbon fuels.**

- Fuel switching from fossil fuels to electricity has the potential to significantly decrease emissions in the residential and commercial sectors and manufacturing.
- Switching to biofuels and renewables has significant potential to reduce emissions from transportation, manufacturing, coal mining and minerals and pulp and paper. Much work still needs to be done on biofuel development.

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<sup>7</sup> Clean vs Green. Clean technology has zero net emissions or no emissions at all. Green technology has very low emissions. For example, an electric car using electricity from Alberta, could be considered green because it has less emissions than vehicles using fossil fuels directly; but not clean, because fossil fuels are used to produce the electricity. Whereas in BC, where electricity production is 93% fossil fee, an electric car can be considered clean because of the very low emissions associated with the production of electricity. Wood chip and ethanol are green but not clean as they too contribute pollution but not in the quantities of fossils.

**How will a B.C. Green government require the adoption of low carbon fuels?**

Examples of initiatives include:

- Requiring large emitters to submit GHG mitigation plans;
- Phasing out the use of diesel and gasoline powered urban delivery vehicles, beginning with a moratorium on the registration of new vehicles in 2025.

## **C. Sinks**

A carbon sink is anything that stores, or sequesters, more carbon than it releases. Natural sinks are plants and forests, oceans and soil.

### **15. A B.C. Green government will implement a forest carbon strategy to take full advantage of the opportunities created by forest sinks.**

- BC has a global leadership opportunity in forest carbon management. Forests are a natural sink, however, due to the mountain pine beetle infestation, fires and over-harvesting, BC's forests are currently net emitters of carbon. A forest carbon management strategy is a key part of GHG management.
- Carbon can also be sequestered in harvested wood products such as buildings, furniture and other manufactured products and paper. Harvested wood products play three important roles climate change mitigation: storage of carbon, a substitute for more energy-intensive materials, and a renewable material for energy generation (as discussed in the section on low carbon fuels).

### **16. A B.C. Green government will invest \$29 million over four years to enhance the scientific understanding of the effects of climate change in B.C.; and, to support forest carbon management initiatives as part of the greenhouse gas emissions reduction strategy**

- Effective forest carbon management that supports sustainable harvesting and the carbon storage value of long-term harvested wood products; forest conservation and reforestation is essential, if B.C. is to meet its targets.
- This measure will enable B.C. to better understand and plan for the particular effects of climate change on our unique ecosystems.
- This measure will enable B.C.'s forestry industry to sustain for generations to come.



