



Electric Vehicle Policy – BC Election Party Comparison

In advance of BC's general election on May 9th <u>Simon Fraser University's Sustainable Transportation</u> <u>Research Team (START)</u> and <u>Clean Energy Canada</u> have prepared a comparison of how the BC Liberals, BC Greens and BC NDP will support electric vehicles if elected.

The transportation sector in British Columbia accounts for about one-third of the province's total greenhouse gas emissions. Deep reductions in transportation emissions will therefore be essential to meeting provincial emissions reduction targets. Electric vehicles, both pure battery electrics that run on only electricity (like the Nissan Leaf or Tesla Model S) and plug-in hybrids that run on both electricity and gasoline (like the Chevrolet Volt or Ford C-Max Energi), have the potential to significantly reduce emissions. With the current electric grid in British Columbia, an electric vehicle can reduce emissions 78% to 98% compared to a conventional gasoline vehicle. ²

While the market for electric vehicles in British Columbia has been growing, electric vehicle sales are only about 2% of new vehicle sales. Research shows that British Columbians are interested in electric vehicles, but are constrained by a range of factors such as vehicle purchase prices, access to charging (at home, work and destinations), limited variety and availability of vehicles and a lack of consumer awareness. ³ Policies that address these barriers are needed to increase electric vehicle adoption and help achieve climate targets.

In this document we outline party support for a wide range of policies that have a direct or indirect impact on supporting electric vehicle adoption in British Columbia. In particular, we examine what types of electric vehicle policies each party would implement if elected to government. The information provided in this report includes official party input as well as official Platforms regarding electric vehicle policy.

Note: Our objective is to highlight each party's electric vehicle policy support—this document does not endorse any particular party. We display the three parties in alphabetical order: Green, Liberal and NDP. We invite interested readers to compare the policies proposed here with the policy evaluations conducted by START in Canada's Electric Vehicle Policy Report Card.

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³ Ibid

¹ Environment and Climate Change Canada, *National Inventory Report 1990-2015: Greenhouse Gas Sources and Sinks in Canada* . 2016. Government of Canada. Available from: https://www.ec.gc.ca/ges-ghg/default.asp?lang=En&n=83A34A7A-1.

² Axsen, J., et al., *Electrifying Vehicles: Insights from the Canadian Plug-in Electric Vehicle Study*. 2015, Simon Fraser University: Vancouver, BC, Canada





Summary

In the following pages we look at party support for 9 key electric vehicle policies. For each policy we identify if a party has identified a specific policy proposal or provided any detail associated with that proposal.

We summarize these findings here:

| Policy | GREENS | LIBERALS | NDP |
|--|--|---|--|
| 1. Electric vehicle purchase incentive | \$5,000 per Electric Vehicle with \$77,000 MSRP cap | \$5,000 per Electric Vehicle with \$77,000 MSRP cap | \$5,000 per Electric Vehicle with \$77,000 MSRP cap, and will consider PST adjustments based on vehicle CO ₂ |
| 2. Zero-emission vehicle mandate | Will introduce a ZEV mandate to ensure a growing supply of electric vehicles | No policy proposed | No policy proposed, but may consider - ZEV mandate will be part of discussions within first 100 days |
| 3. Charging – home and workplace | Indicated support for building code requirements, but no policy proposals for strata policy changes or charger rebates, but will consider options for supporting residential and commercial charging | Will support building code changes to empower local government regulation and policies to facilitate charging in strata buildings, and will invest in residential charging with CEV program funds | Not considering building code or strata policy changes, but may consider rebates for multi-user residential and commercial uses |
| 4. Charging – Public | Will invest in an expanded network of charging facilities to enable long distance travel with electric vehicles | Will invest in expanding public, residential and workplace charging with CEV program funds | May consider public charging support |
| 5. Carbon tax | \$70/tonne by 2022, increase starting in 2018 | \$50/tonne by 2022, increase starting in 2021 | \$50/tonne by 2022, increase starting in 2020 |
| 6. Low carbon Fuel Standard | Will introduce progressively more stringent requirements to adopt low carbon fuels. | Will support current levels (i.e. 15% reduction by 2030) | May consider increasing to 20% reduction by 2030 |
| 7. Non-financial incentives other than HOV lanes | Will support tolls for gasoline and diesel vehicles, free parking and lowered ferry fares for electric vehicles | No policy proposal | No policy proposal but will support |
| 8. Information and outreach campaigns | Support and will provide funding for information and outreach campaigns | Support and will provide funding for information and outreach campaigns with the CEV program funds | Support and will provide funding for information and outreach campaigns |
| 9. Government fleet procurement requirements | Indicated that they will adopt a fleet procurement policy | No policy proposal | Indicated that they will adopt a fleet procurement policy |





Detailed review of party electric vehicle policy support

1. Vehicle purchase incentives reduce the cost of electric vehicles. The most common types of incentives are rebates and tax exemptions/adjustments (e.g. based on the GHG intensity of a vehicle). British Columbia currently has a rebate of up to \$5000 for the purchase of new electric vehicles with MSRPs below \$77,000. The rebate can be combined with an additional \$6000 incentive from Scrap-It BC if a vehicle is scrapped and replaced with a new electric vehicle.

Government support for electric vehicle purchase incentives

| Party | Policy details | |
|----------|---|--|
| NDP | \$5000 per electric vehicle, no change in MSP cap | "Within the first 100 days of a BC NDP government, we would renew the Climate Leadership Team[which] recommends establishing Zero Emission Vehicle targets for the sale of new light duty vehicles, so additional incentives will be part of the discussion." [Source: Response] |
| Greens | \$5000 per electric vehicle, no change in MSP cap | "We will continue to offer electric vehicle purchase incentives. We will maintain the current rate of incentives, and are open to exploring further incentives to facilitate the widespread adoption of electric vehicles. We will also consider other initiatives to incentivize the purchase of electric vehicles, including distance-based insurance and transferable licence plates, where the second vehicle is a zero emissions vehicle." [Source: Response] |
| Liberals | \$5000 per electric vehicle, no change in MSP cap | "Our platform commits to continue these efforts by investing a further \$40 million in the Clean Energy Vehicle (CEV) program. This will support continued point-of-sale purchase incentives of up to \$5,000 for battery electric vehicles and \$6,000 for hydrogen fuel cell electric vehiclesThe vehicle price cap established for the CEV Program in March 2016 remains in effect" [Source: Response] |

Government support for PST exemptions or adjustments for the purchase of electric vehicles

| Party | Policy details | |
|----------|---|--|
| NDP | "We will remove PST from electric bicycles. Further reductions / exemptions on a broader range of vehicles would be part of the transportation mix included as we develop a low carbon transportation strategy, as recommended by the Climate Leadership Team. It's important that the incentives and costs of the EV/ZEV program achieve the most positive result possible, and are integrated with our larger climate change plan. The Climate Leadership Team recommends establishing revenue neutral PST for all vehicles based on grams of CO2 per km, similar to many European vehicle registration systems. We will consider this policy in our discussions." [Source: Response] | |
| Greens | No policy proposed | |
| Liberals | No policy proposed | |





2. Zero Emission Vehicle (ZEV) mandates require auto manufacturers to sell a minimum percentage of electric or hydrogen fuel-cell vehicles, as is currently implemented in California and Quebec. This encourages automakers and dealers to develop, market, and sell a wider variety of models and potentially lower sales prices as well.

Government support for implementing a zero emissions vehicle mandate

| Party | Policy Detail | |
|----------|---|--|
| NDP | No policy proposed, but may consider the Climate Leadership Team's recommendation of: "the following Zero Emission Vehicle targets for the sale of new light duty vehicles: i) 10 per cent of sales by 2020; ii) 22.5 per cent of sales by 2025; and iii) 30 per cent of sales by 2030. Within the first 100 days of a BC NDP government, we would renew the Climate Leadership Team to discuss how we will implement their recommendations. ZEV mandates would be a part of the discussion and plan." [Source: Response] | |
| Greens | Indicated support for implementing a ZEV mandate. "Initiatives will include strategies targeted at increasing the supply and accessibility of low-carbon options. A ZEV mandate would form part of this strategy to ensure a growing supply of electric vehicles. We will develop a ZEV mandate in line with our greenhouse gas emissions reduction plan and in consultation with stakeholders." [Source: Response] | |
| Liberals | No policy proposed | |





- **3. Home and workplace charging infrastructure** programs provide electric vehicle owners with a reliable access to charging at their homes and workplaces, where the majority of electric vehicle charging occurs. There are several policies that make the installation of home and workplace charging cheaper and easier, including:
 - → **building codes**, which mandate a certain amount or level of charging access in new single-family homes, and multi-unit residential and commercial buildings. For example the City of Vancouver and other municipalities in Metro Vancouver have established by-laws that require a certain level of electric vehicle charging access in new residential and commercial development (e.g. percentage of stalls that need to have conduit to support charging).
 - → **Strata Act amendments** that empower individuals to set up charging infrastructure in multiunit
 - → **rebates** for the purchase and installation of chargers in existing buildings and workplaces.

Government support for establishing building code requirements for new homes, and residential and commercial buildings and support for amendments to the Strata Act to empower individuals to set up charging infrastructure in multi-unit residential buildings

| Party | Policy details | |
|----------|--|---|
| NDP | No policy proposed | "We currently have no platform commitments related to building code requirements for charging infrastructure. Multi-unit residential building[s] are managed by their owners and already have the capacity to permit installation of charging stations. We do not see a need to amend the [Strata] Act, but there is a need for education and assistance for residential buildings to consider this technology [in the] Act." [Source: Response] |
| Greens | Indicated support for establishing building code requirements for residential (single-family and multi-unit) and commercial buildings | "will consider various options for promoting the installation of charging facilities, in single family homes, multi-unit residential properties, and commercial buildings and workplaceWe don't have specific commitments in our platform on these policy proposals, but support the principles behind facilitating the adoption of electric vehicles andworking with organizations in implementing these principles into strong public policy" Indicated support for establishing building code requirements for residential (single-family and multi-unit) and commercial buildings. [Source: Response] |
| Liberals | Indicated support for establishing building code requirements for local government | "We recognize that a major challenge for adoption of these vehicles is ensuring that owners can access charging stations. That is why we are taking action to support charging stations across the province, developing regulations to allow local governments to require new buildings to install adequate infrastructure for electric vehicle charging and policies that facilitate installing electric vehicle charging stations in strata buildings and developments." [Source: Response] |





Government support for providing rebates for the purchase or installation of electric vehicle chargers in existing residential or commercial buildings, and workplaces

| Party | Policy details | |
|----------|---|---|
| NDP | Will consider rebates for multi-unit residential, commercial and workplaces charging | "We would consider providing subsidies or rebates for the purchase and installation of charging stations, focusing first on multi-user locations, as part of a low carbon transportation strategy." [Source: Response] |
| Greens | No policy proposal | "will consider various options for promoting the installation of charging facilities, in single family homes, multi-unit residential properties, and commercial buildings and workplace. This will include exploring the possibility of providing rebates for installations and purchases. We don't have specific commitments in our platform on these policy proposals, but support the principles behind facilitating the adoption of electric vehicles" [Source: Response] |
| Liberals | Will provide funding for public, residential and workplace charging | Part of the \$40 million CEV program investment will be directed towards "expanding public, residential and workplace charging and hydrogen fuelling infrastructure" [Source: Response] |

4. Public charging infrastructure investment provides electric vehicle drivers with access to charging away from home. The most common types of charging infrastructure investments are in Level 2 chargers, which can fully charge a vehicle in 3-8 hours, or DC fast (or Level 3) chargers, which can charge a vehicle in about 30 minutes. Level 2 chargers are typically deployed within city or town boundaries (e.g. community centers, malls, retail), while DC fast chargers are typically deployed within cities/towns and also on highways to facilitate long distance travel.

Government support for investment in the deployment of Level 2 and DC public charging infrastructure

| Party | Policy Detail | |
|----------|--|--|
| NDP | "Consideration of how to deploy chargers and how to pay for them would be part of our low carbon transportation strategy. Linking a rebate to the purchase of an EV, as is done in Ontario is an option, as is partnering with commercial building owners, sponsors or others to share the costs. These options and others would be considered." [Source: Response] | |
| Greens | "will promote investment in clean transportation initiatives and technology that creates jobs and economic activity without increasing greenhouse gas emissions. As part of this plan, we will invest in an expanded network of charging facilities to enable long distance travel with electric vehicles. We'll look at multiple ways to encourage the expansion of access to charging facilities, including working with gas stations and other facility operators. We will also work with operators, seeking to incentivize companies to provide charging facilities." [Source: Response] | |
| Liberals | Part of the \$40 million CEV program investment will be directed towards "expanding public, residential and workplace charging and hydrogen fuelling infrastructure" [Source: Response] | |





5. Carbon taxes increase the price of transportation fuels like gasoline and diesel that generate carbon emissions; thereby making it relatively more cost competitive to fuel a vehicle with low-carbon electricity like we have in BC. The current carbon tax in British Columbia is \$30/tonne of CO2, increasing to \$50/tonne by 2022 in accordance with the federal carbon pricing regulation.

Government support for increasing the carbon tax

| Party | Policy Detail | |
|----------|--|--|
| NDP | \$50/tonne by 2022, increase starting in 2020 | "We will use the revenue from carbon tax increases to provide rebate cheques for low and middle income families and invest in climate change solutions that create jobs, benefit communities and further reduce climate pollution." [Source: Response] |
| Greens | \$70/tonne by 2022, increase starting in 2018 | "The central pillar of our climate action strategy is putting a price on carbon that maintains the impetus to reduce consumption of fossil fuels." [Source: Response] ", A "BC Green government will formally end the commitment to revenue neutrality, and will, instead, focus on short term investments that will facilitate low carbon options" [platform] |
| Liberals | \$50/tonne by 2022, increase starting in 2021 | "We will maintain the carbon tax freeze until 2021, while other Canadian provinces catch up to our leadership position. The carbon tax will be revenue neutral, meaning every dollar raised will be returned to British Columbians in the form of tax relief. This way, we maintain affordability for families and competitiveness for industry." [Source: Response] |





6. Low Carbon Fuel Requirements require fuel suppliers to reduce the carbon intensity of the fuels they sell. This can support electric vehicle adoption because electricity is considered a low-carbon "fuel" and fuel suppliers can meet some of their requirement by purchasing credits from providers of low-carbon fuels (e.g. credit revenue can be used to lower electricity rates for electric vehicle users, build more chargers, or reduce vehicle prices). In British Columbia, the current regulation (Renewable & Low Carbon Fuel Requirements Regulation) requires a 15% reduction in the carbon intensity of transportation fuels by 2030, and provides a mechanism for low carbon fuel providers, like electric utilities, to generate credits.

Government support for an increase in the requirements for the regulation to support electric vehicles (i.e. increase the reduction target beyond 15% by 2030) and work with electric vehicles stakeholders, such as electric utilities, electric vehicle manufacturers and charging service

providers, to further promote electric vehicles through the regulation

| Party | Policy Detail | |
|----------|---|--|
| NDP | "Specific policy options and thresholds for lowering the carbon intensity of fuels would be considered as part of our low carbon transportation strategy, including the best use of credits in lieu of lowered intensity to ensure the best end result for the climate. The Climate Leadership Team recommended increasing the Low Carbon Fuel Standard to 20 per cent by 2030; we support that objective and will determine specifics if we form government." [Source: Response] | |
| Greens | "The low carbon fuel regulation is designed to stimulate innovation and innovative solutions to lower our carbon emissions. A B.C. Green Government will consider how the low carbon fuel standard can be updated to be more efficient and effective in reducing the carbon intensity of transportation. 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 a variety of sectors and manufacturing." [Source: Response] | |
| Liberals | Support 15% reduction by 2030 (current levels). No increase specified. [Source: Platform] | |





7. Non-financial incentives offer other benefits to consumers including unrestricted access to lanes reserved for high-occupancy vehicles (HOV) and free bridge tolls. Currently, electric vehicle drivers in British Columbia can apply to have unrestricted access to HOV lanes.

Government support for the current HOV lane program and potentially implementing other non-financial incentives like free bridge tolls

| Party | Policy Detail | |
|----------|--|--|
| NDP | Indicated support for HOV lane access and other non-financial incentives. | No details provided. [Source: Response] |
| Greens | Indicated support for HOV lane access and other non-financial incentives. | "We will explore a variety of measures to incentivize the use of low emission vehicles. We will explore 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; and half price ferry fares for electric vehicles."" [Source: Response] |
| Liberals | Indicated support for HOV lane access, but not other non-financial incentives. | "Today's BC Liberals embrace creative ideas to encourage electric vehicles. For instance, eligible electric and hydrogen fuel cell vehicles displaying an official decal are allowed in high occupancy vehicle (HOV) lanes throughout our province, regardless of the number of passengers in the vehicle." [Source: Response] |

8. Information and outreach campaigns educate the public about electric vehicles and charging and include public-sponsored advertising, consumer outreach, informational websites, and vehicle labeling. At present several information/outreach initiatives (e.g. Emotive, Plugin BC) are funded through programs like the Clean Energy Vehicle Program.

Government support of and providing funding for information and outreach campaigns

| Party | Policy Detail |
|----------|--|
| NDP | Indicated support and funding for information campaigns and outreach, but no details provided. [Source: Response] |
| Greens | "We 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, and their benefits, including information about electric vehicles." [Source: Response] |
| Liberals | Part of the \$40 million CEV program investment will be directed towards "increasing public awareness of the benefits of ZEVs." [Source: Response] |





9. Fleet procurement requirements stipulate that new or leased fleet vehicle purchases be electric for certain vehicle classes and functions – this can help promote electric vehicles and raise awareness. For example, the City of Vancouver and the Government of Ontario have established policies to replace all relevant public sector vehicles with electric or zero-emissions vehicles.

Government support for adopting a government fleet procurement policy

| Party | Policy Detail | |
|----------|---|--|
| NDP | Indicated that they will adopt a fleet procurement policy | "Any effective low carbon transportation strategy will have to include fleet vehicles. Determining the most effective vehicle mix for BC and the percentage requirement will be part of developing that strategy." [Source: Response] |
| Greens | Indicated that they will adopt a fleet procurement policy | " will adopt a fleet procurement policy to help promote electric vehicles and raise awareness. The exact terms of our fleet procurement policy will be developed in consultation with stakeholders upon forming Government." [Source: Response] |
| Liberals | No fleet procurement policy indicated | "We are also working with California, Oregon and Washington as signatories to the 2013 Pacific Coast Collaborative Action Plan on Climate and Energy, pledging to take actions to expand the use of ZEVs in public and private fleets." [Source: Response] |

Additional notes on party support for electric vehicles in the province

| Party | Policy Detail |
|----------|---|
| NDP | "The use of EV's as local emergency power sources and the potential to link to grid both have the potential to be valuable additions to our power supply and we will support the development and testing of both." [Source: Response] |
| Greens | "We fundamentally support a shift to electric vehicles and believe that the policy proposals in this questionnaire are worthy of strong consideration. Supporting the widespread adoption of electric vehicles across BC is a key part of our sustainable transportation plan. It is also crucial to our climate action plan to meet our emissions targets. A B.C. Green Government would work with stakeholders to develop the best policies for the transition to a low carbon economy." [Source: Response] |
| Liberals | Other programs that will be funded under the \$40 million CEV program include: "Supporting research, economic development and job training in the zero-emission vehicle (ZEV) sector; Continuing purchase incentives for specialty-use vehicles used in vehicle fleets such as light-duty zero-emission trucks, buses and motorcycles; and Providing incentives for bikes, electric bikes, electric scooters, car share credits and transit passes when someone scraps an older vehicleWe are also working internationally – BC was the fourteenth jurisdiction to sign on to the International Zero-Emission Vehicle Alliance at Cop 21 in Paris. Members of the Alliance will strive to make all new passenger vehicles in their jurisdictions ZEVs by no later than 2050[and] Since our government introduced the CEV Program in 2011, we have invested more than \$71 million" [Source: Response] |