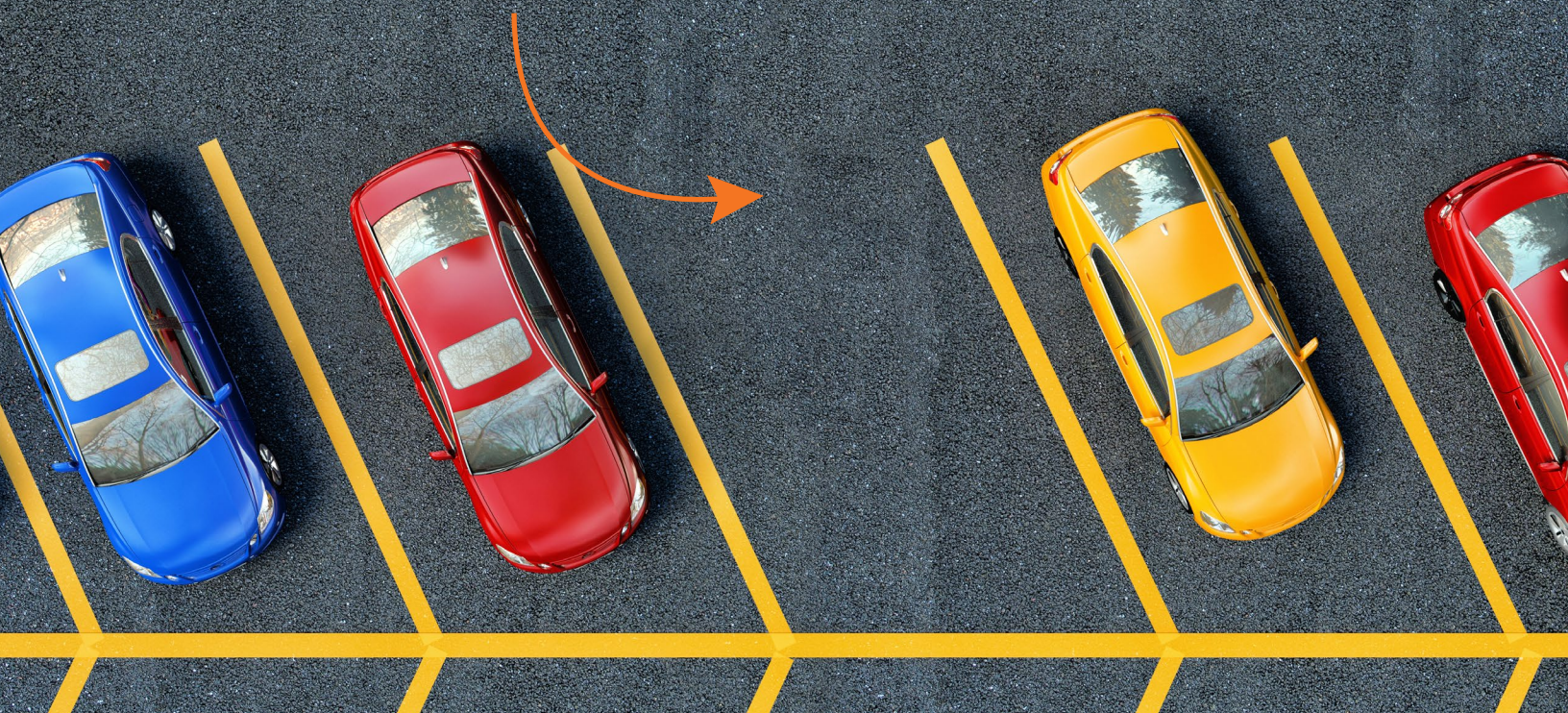


# Batteries Not Included

British Columbians want electric cars, but most B.C. dealerships still don't have a **single one** on the lot





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## Batteries Not Included Solutions Series

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MORRIS J. WOSK  
CENTRE FOR DIALOGUE

# Halfway There

**N**o one can say where the road ahead will take Canada, but here's a safe bet: it's going to have a lot more electric cars on it.

That's especially true in B.C., one of Canada's electric vehicle leaders, and yet the situation is far from perfect for would-be buyers on the West Coast.

Not only is supply struggling to meet demand, British Columbians often can't find EVs to test drive. Others are left waiting months to get their hands on a new model, while many dealerships seem unaware of incentive programs available to EV buyers.

In June and July, Clean Energy Canada called all 322 dealerships in B.C. that qualify for the province's EV rebate program and found that **only 40% of them have electric cars on their lots available to purchase**. Most said the wait time to get an electric car would be three months to a year—with some citing **wait times of up to 18 months**. Fewer than one in five of them could refer us to an alternative dealership with available EVs.

We also asked dealer representatives about B.C.'s electric car incentive, and the good news is most knew about the provincial rebate program (66%), but far fewer were aware of the household charger rebate (28%), which lowers the cost of installing a home charger.

**In short, electric car ownership is growing despite an unequal playing field that continues to favour traditional, polluting cars.** British Columbians should be able to more easily choose to go electric. They should have local dealerships where they can test drive that new EV model that's supposed to be available—and if they like it, drive it off the lot in the colour they want. They shouldn't have to pay a year-long penance to drive a car that cuts down on both fuel bills and pollution.

A better situation for buyers is hardly a far-flung fantasy; one need only look to California or Quebec to see an improved experience. While B.C. has introduced some helpful solutions—like EV purchase incentives and investments in charging infrastructure throughout the province<sup>1</sup>—there remains a significant missing piece in this puzzle, and it explains why EVs represented 6.2% of new car sales in California in the first half of 2018 compared to just 3.5% in B.C.<sup>2,3</sup>

That missing piece: a zero-emission vehicle mandate, which would require automakers to sell a minimum share of EVs in B.C. every year. Such a policy would mean more electric cars on lots throughout the province and shorter

or non-existent wait times.

In addition to California, nine other states have ZEV mandates, and Quebec

introduced its own

this year. A 2015 study from FleetCarma found that, based on dealership inventory, buying an EV is five times harder in Canada than in a number of U.S. states.<sup>4</sup>

**Put simply, a ZEV mandate is a tried and true way to ensure B.C. gets the same electric car options as North America's leading jurisdictions.**

Current wait times are brutal, but they do send a clear signal: the demand is here. A recent study from BC Hydro found that **one in three British Columbians expect their next car to be an EV**, and it's no wonder: that same report found that **fuel costs for electric car owners in B.C. equalled just one-quarter of what drivers spend on gasoline**.<sup>5</sup> And thanks to our abundant hydro power, EVs are extra clean.<sup>6</sup>

So it was no surprise that the dealerships we spoke to were by and large excited about electric cars. Unfortunately, a lack of supply has also resulted in a lack of knowledge. A number of dealer representatives underestimated the range of modern EV models or overestimated the time it takes to charge them—both common concerns among potential buyers.

The situation is also particularly dire outside of the Lower Mainland, especially in Northern B.C., where only 7% of applicable dealerships have an EV available to purchase.

B.C. deserves credit for its efforts to date: we've built a strong network of charging stations while offsetting upfront costs for consumers. But that can only take us so far when there are more willing buyers than there are available electric cars.

Luckily, this problem has a clear solution—and B.C. need only merge into the winning lane.



A stylized, handwritten signature in black ink, consisting of a series of loops and curves.

**Merran Smith**, Executive Director,  
Clean Energy Canada



## WHAT'S A ZERO-EMISSION VEHICLE?

While a number of technologies emit no pollution—including the humble bicycle—we're mostly talking about two types of EVs.

**Battery EV:** These are fully electric cars that use only battery power and have no gas tank.

**Plug-in hybrid:** Unlike traditional hybrids, plug-in hybrids are charged and can rely solely on battery power for day-to-day driving, using gas only for long trips.



**The Chevrolet Bolt EV** was the best-selling battery EV in Canada last year. Its sister car, the Volt, was the best-selling plug-in hybrid. Photo: Chevrolet

## Availability

**ONLY A MINORITY** of B.C. dealerships have electric cars that you can buy and drive home today. In June and July, Clean Energy Canada called all 322 dealerships that qualify for the province's EV rebate and found that, of the 292 that responded, just 40% have EVs on their lots to purchase.

But the picture is starkly different depending on where you live. While a slim majority of dealerships in the Lower Mainland have EVs (54%), **Northern B.C. is another story with just 7% having cars on their lots to buy.** Interior B.C.—which includes the Okanagan—scored better but not great at 27%. As for Vancouver Island and the Sunshine Coast: 43% of the dealerships there have EVs, nearly the provincial average.

### METHODOLOGY

A phone-based survey was conducted between June 19 and July 20, 2018, for all B.C. dealerships that sell EV models that qualify for the provincial Clean Energy Vehicle Incentive. Of the 322 applicable dealerships, 292 (91%) were ultimately reached and provided answers. Our researcher posed as an interested buyer, and each dealership was asked the same series of questions. Answers were cross-referenced with inventory posted on autotrader.ca. We counted all cars with a plug—both battery and plug-in hybrid EVs.

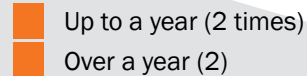
# The Provincial

## Picture

### NORTHERN B.C.

Percentage of dealerships with EVs: **7%**  
Could refer us to another dealership with EVs: **22%**  
Knew about the provincial rebate: **0%**  
Knew about the charger rebate: **0%**

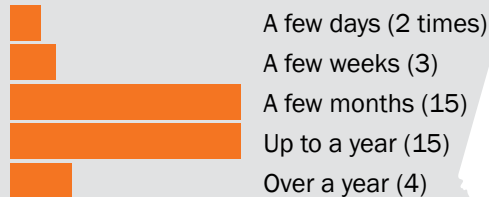
#### Average stated wait times to get an EV



### LOWER MAINLAND

Percentage of dealerships with EVs: **54%**  
Could refer us to another dealership with EVs: **13%**  
Knew about the provincial rebate: **75%**  
Knew about the charger rebate: **34%**

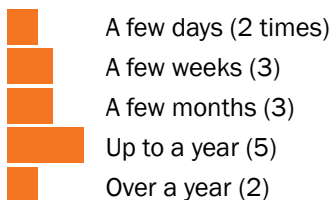
#### Average stated wait times to get an EV



### VANCOUVER ISLAND & THE SUNSHINE COAST

Percentage of dealerships with EVs: **43%**  
Could refer us to another dealership with EVs: **34%**  
Knew about the provincial rebate: **62%**  
Knew about the charger rebate: **31%**

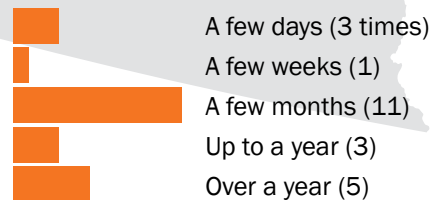
#### Average stated wait times to get an EV



### INTERIOR B.C.

Percentage of dealerships with EVs: **27%**  
Could refer us to another dealership with EVs: **15%**  
Knew about the provincial rebate: **56%**  
Knew about the charger rebate: **13%**

#### Average stated wait times to get an EV



# What Dealerships Said



## REBATES

We asked dealer representatives about B.C.'s electric car incentive, and the good news is most knew about the provincial rebate program (66%), though some got the amount (up to \$5,000) wrong or had to pull up the details on Google. And **far fewer salespeople were aware of the household charger rebate** (just 28%), which lessens the cost of installing a home charger by up to \$750 (the fund for which ran out in July and needs to be renewed).



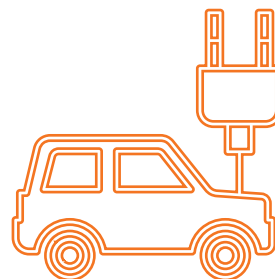
## ENTHUSIASM

The majority of salespeople we spoke to across the province were excited by the transition to electric cars, with only a handful expressing doubt or pushing us to purchase a gas-powered car instead. A dealer on Vancouver Island explained that he wasn't an EV fan before, but the Chevy Bolt won him over. **"If we had more Bolts, way more would be sold,"** he said. "We just need the vehicles. They're getting all eaten up in California."



## WAIT TIMES AND REFERRALS

Among the 60% of applicable dealerships with no EVs on their lot, most said the wait time to get an electric car would be three months to a year—with some citing wait times of up to 18 months. Only 19% of them were able to refer us to an alternative dealership with available EVs. These findings are consistent with a study commissioned by the federal government, in which EV supply issues were the challenge most commonly cited by B.C. car dealerships.<sup>7</sup> **We repeatedly heard that EVs are sold as soon as they hit the lot and that they're hard to get ahold of.** A dealer representative from the Lower Mainland pointed to Quebec's ZEV mandate for swallowing up Ford Focus EVs "so there are none all across B.C."



## MISCONCEPTIONS

A number of dealer representatives underestimated the range of modern EV models or overestimated the time it takes to charge them—both common concerns among potential buyers.<sup>8</sup> **A salesperson on Vancouver Island falsely assumed there were no EVs from their manufacturer available in the province at all.** This issue isn't unique to B.C. dealerships. Consumer experience studies in the U.S.<sup>9</sup> and Europe<sup>10</sup> similarly found the sales process at dealerships "wrought with inconsistencies"<sup>11</sup> and a "significant barrier at the point of sale."<sup>12</sup>



# What Customers Said



**RANDY RINALDO**  
**BURNABY**

"I was looking for the electric Fiat 500. I heard a lot of good things about it. It was a stylish car, it had a 150-kilometre range, and there was nowhere in British Columbia I could buy it. **I was a ready, willing, and able customer with money in hand to buy this car, and there was no one there to supply it for me**—so I had to go to the United States to purchase this vehicle.

"When you have customers and a market out there that wants these cars—they want to start saving money, they want to stop polluting—and you don't supply it. You know, we should just be able to walk into a dealership and buy these cars.

"One thing I like to tell people is that it's like the first time you experience a smart phone—back in 2008, 2009—and you're touching the screen and you just can't believe it. Of course, you'll never go back to a flip phone. The moment you try an electric car, you'll never want to try anything else."

 **CLICK HERE**  
to watch his story



**ANNA MARIE D'ANGELO**  
**NORTH VANCOUVER**

"The plug is all ready to go, and after a year of trying to find an electric car, I still don't have one. It's very disappointing.

"I'm very conscious about my carbon footprint. An electric vehicle just makes total sense. It's an electric motor, operated by a computer, which we should be using in this day and age and not just using early twentieth-century technology.

"I have looked at electric vehicles in my price range, and there are very few available in Canada. There are more available elsewhere when you look online. It'll say it's not available in Canada or there's fifteen in Canada. There's one car that I really wanted to get, and that's only available in California.

**"There should be a plan that the government should make so that electric vehicles are accessible to people in all price ranges.**

"I think that we should be a leader in this kind of technology and not be the last ones in."

 **CLICK HERE**  
to watch her story



**PAT SHELLARD**  
**BURNABY**

"I originally went in 2011 to my local Nissan dealer and asked to be put on a waiting list so that I could purchase the Leaf when it first came out. They took my name and I never heard from them again. I went in a second time, very close to the arrival of the first Nissan Leaf in British Columbia, and they took my name again, and I never heard from them again.

"I put my name on a list for one of the newer cars by Mitsubishi, and the salesperson changed jobs and started working for a Nissan dealer, and he called me saying, 'Hey, I've got a lead on getting a Nissan Leaf—are you interested?' And I said, 'Of course I am!' And that's how I bought my first Nissan Leaf.

"A lot of my friends have tried to go in to test drive or look at electric vehicles, and they don't have any in stock. **It's really hard to order a car when you can't even see it.** Most of the ads for major car dealers don't have any word of an electric vehicle available—yet they are out there. You have to ask."

 **CLICK HERE**  
to watch his story



# A Changing

# Charging Landscape

# 700+

That's how many public EV charging stations you can find throughout B.C.—and most have a couple outlets, resulting in a combined 1,500 publicly available plugs for electric cars.<sup>13</sup> That number is constantly being upgraded, of course. For its part, **BC Hydro is building a network of fast-charging stations throughout the province**, having most recently completed a line between Tofino and Alberta. Next on the list: Northern B.C., where electric car availability remains the lowest.<sup>14</sup>

It's also getting easier to charge up at home, whether you live in a house or a condo. B.C. municipalities are stepping up and enacting zoning bylaws, or in the case of Vancouver its building code, requiring EV charging in new-build homes, multi-unit dwellings, and even at gas stations.<sup>15</sup>

**Charging a Mitsubishi Outlander** plug-in hybrid with a fast charger in Spences Bridge, B.C., a small community south of Kamloops. Photo: Emotive







# The Solution

**B.C. ISN'T STARTING FROM ZERO.** We've already built a strong network of electric car charging stations and helped offset upfront costs for consumers—accelerating us into the top three provinces for EV sales. But as a country, we continue to lag a number of nations, with Canada's market share for EVs dropping from 9th place in 2016 to 11th place in 2017 (see ranking above).<sup>16</sup>

A zero-emission vehicle mandate would require automakers (not individual dealerships) to sell a minimum share of EVs in B.C. every year. Automakers would have to make electric cars readily available on dealership lots—and perhaps also provide information and training to salespeople and invest in advertising them. Such a policy would mean more EVs on lots throughout the province and **shorter or non-existent wait times for British Columbians who want their next car to be electric.**

The market share for EVs in California nearly doubles that of B.C. Meanwhile, nine other states have ZEV mandates, and Quebec introduced its own earlier this year.

## SHARE OF VEHICLE SALES FOR ELECTRIC CARS (2017)

1. Norway **39.2%**
2. Sweden **6.3%**
3. Netherlands **2.7%**
4. Finland **2.6%**
5. China **2.2%**
6. France **1.7%**
7. U.K. **1.7%**
8. Germany **1.6%**
9. South Korea **1.3%**
10. U.S. **1.2%**
11. Canada **1.1%**
12. New Zealand **1.1%**



## POLICIES TO SUPPORT EVS IN B.C.

- Implemented
- Under consideration
- Led by municipalities

### DEMAND-FOCUSED

● <b>Financial incentives</b>	Reduce ZEV and infrastructure costs through subsidies, rebates, waived user fees, or tax exemptions
● <b>HOV lane access</b>	Unrestricted access to high-occupancy vehicle (HOV) lanes
● <b>Public charging</b>	Provide access to charging away from home
● <b>Building codes</b>	Require charging access in new buildings
● <b>Carbon pricing</b>	Increase price of fuels that generate carbon emissions through carbon tax or cap-and-trade

### SUPPLY-FOCUSED

● <b>ZEV mandate</b>	Require automakers to sell a minimum share of ZEVs
● <b>Vehicle emission standard</b>	Specify a required maximum level of tailpipe emissions for light-duty vehicles
● <b>Clean fuel standard</b>	Require fuel suppliers to reduce the carbon intensity of the fuels they sell with credits for alternative fuels consumption including electricity and hydrogen <sup>17</sup>





The B.C. government  
has proposed provincial  
**sales targets for EVs**

**5%** by 2020  
**10%** by 2025  
**30%** by 2030

**Emotive**, B.C.'s campaign to promote  
awareness about electric vehicles.

## DRIVE BEFORE YOU BUY

B.C. can join Quebec in helping Canada catch up.

A number of salespeople we spoke to said B.C. was being short-changed because Quebec was getting all the EVs and car manufacturers weren't building enough to meet demand.

**A ZEV mandate sends a clear signal to automakers that they need to keep up with demand—and offer consumers the ability to choose electric.**

The B.C. government is currently considering adopting a ZEV mandate, both to help the province meet its 2030 climate target and to achieve its goal of having 5% of new car sales be for ZEVs by 2020.

But this is also about fairness and choice. Let's ensure British Columbians get the same electric car options as people living in North America's leading jurisdictions.

**OUR RECOMMENDATION:** The B.C. government should follow through on its proposal to introduce a clean energy vehicle availability standard, modelled after the zero-emission vehicle mandates already working in other jurisdictions. The standard should increase over time, sending a clear signal to automakers that they need to keep pace with growing consumer interest in going electric.

When it comes to electric cars, Canada is home to a world-first: an EV discovery centre. Based in the Toronto area, Plug 'N Drive features a wide range of EVs that anyone with a driver's license can test drive. Given the long waitlists many Canadians must endure to get their hands on an electric car, discovery centres give buyers a place to actually try the cars before ordering them in—all in one convenient location, with no sales pressure to boot. While we look forward to a day when discovery centres won't be necessary, this made-in-Canada solution could help British Columbians in regions across the province get their hands on the wheel before hitting the gas—er, battery.

**OUR RECOMMENDATION:** The B.C. government can build on its successful Emotive outreach programs—which educate British Columbians about electric cars—by investing in bricks-and-mortar showrooms. The province should contribute funds to a Metro Vancouver EV discovery centre and focus on Emotive programs in other parts of B.C.



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Clean Energy Canada  
Suite 721, 602 West Hastings Street  
Vancouver, B.C., V6B 1P2  
[cleanenergycanada.org](http://cleanenergycanada.org)

