Energy Futures

The Economics of EV Mandates in British Columbia

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About the Energy Futures Institute

The Energy Futures Institute is a Resource Works-led project that is bringing a fresh perspective to discussions surrounding the future of energy in British Columbia. Having launched in December 2023, Energy Futures is exploring some of the greatest challenges facing British Columbia's energy security, affordability and independence, answering the big questions on how we meet BC's growing energy demand while protecting our environment, not just today but for the coming decades and centuries ahead. Energy Futures is led by former BC cabinet minister Barry Penner. Penner served as BC's Minister of Environment (and introduced BC's first climate plan), Minister of Aboriginal Relations and Attorney General during his four terms as a MLA. Penner represented Chilliwack in the BC Legislature from 1996 to 2012.

About The Author

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BC is on track for a collision between policy and the market. The province's zero-emission vehicle mandate calls for 26% of new sales to be what are deemed zero-emission vehicles (ZEVs)[1] for the 2026 model year, but with incentives gone, actual consumer demand has fallen closer to 16% (Energy Futures Institute, 2025). That gap of about 20,000 vehicles in B.C.'s annual 220,000 new vehicle market (Statistics Canada, 2025) forces automakers into tough choices.

They can cut prices on ZEVs, buy credits from over-compliers like Tesla, or reduce the number of gas-powered cars they sell, likely shifting what's left toward higher-margin models. Each option comes with trade-offs: higher vehicle prices, tighter supply for popular internal combustion engine (ICE) models, and spillover effects in the used market and in rural or northern communities where ZEVs are less practical.

This brief explores how the pressures could play out and the economic distortions that may follow with a 26% ZEV sales requirement. With the mandate rising to 90% by the 2030 model year and 100% by 2035, the pressure will only grow, making it important to understand the market impacts behind these targets.

For this scenario, we assume automakers close the gap mainly by cutting back sales of gas-powered vehicles and nudging ZEV sales higher, through price adjustments and, if necessary, discounts. This approach lets us focus on the real-world consequences for consumers, the market, and the environment, without leaning heavily on credits or government incentives.

Table 1. Baseline vs. Mandate Gap

Scenario	ZEV Sales	ICE Sales	Total	ZEV Share
Actual (16% demand)	35,200	184,800	220,000	16%
Mandate (26%)	57,200	162,800	220,000	26%
Adjustment	22,000	−22,000	0	10%

Economists describe these shifts using price elasticities (a measure of how sensitively buyers react to price changes). In simple terms, it tells us the percentage change in sales when prices change by 1%.

(1). Both the federal and British Columbia governments define ZEVs as including fully battery electric vehicles (BEVs), plug-in hybrid vehicles (PHEVs) and hydrogen fuel cell vehicles.

Credits help but won't solve the gap.
Automakers can meet part of their ZEV target by buying credits from over-compliers (for example, Tesla) (BC Ministry of Energy, 2024). But as the sales requirements rise, the supply of surplus credits will shrink. The province cut old credit balances to about one-third of their original value to match the new one-credit-per-vehicle system.

If automakers still fall short, they face a penalty of $20,000 per non-ZEV vehicle for the 2026 model year, or they can buy credits directly from the province at about $22,000 each to remain officially compliant. Because credit prices are opaque and availability is limited, companies cannot rely on this as their only strategy. Instead, consumers may feel the impact through fewer gas-vehicle options, higher gas-vehicle prices, and some ZEV discounts.

Table 2. Elasticity Impacts

Elasticity	Interpretation	Role in Scenario
ICE own-price (≈ −0.5)	1% ↑ ICE price → 0.5% ↓ ICE sales	12% ICE sales cut needed → 24% ICE price increase
ZEV vs. ICE cross (+1.7)	1% ↑ ICE price → 1.7% ↑ ZEV sales	≈ 41% ZEV sales boost from the ICE price change alone
ZEV own-price (≈ −1.9)	1% ↓ EV price → 1.9% ↑ ZEV sales	8% ZEV discount closes the shortfall

Source: Elasticity measures from (Leard & Wu, 2023).
Method note: Elasticities are estimated for small price changes. Applying them to a 24% rise assumes linear behaviour that may not hold, so treat the numbers as indicative rather than precise forecasts.

To bring ICE sales down from 184,800 to 162,800 (a 12% cut), automakers would need to raise ICE prices by about 24%. According to the New Car Dealers' Association of B.C., the average new vehicle costs $66,000 (NCDA, 2025). That implies prices climbing to roughly $81,840, an increase of about $15,840 per vehicle. Higher ICE prices would also push more buyers toward ZEVs, lifting ZEV sales by around 41%. A ZEV discount of about 8% covers the rest.

Table 3. ICE Price Implications

Average New Vehicle Price	Required ICE Price Increase	New ICE Price Range	Dollar Increase
$66,000	24%	~$81,840	+$15,840

Together, these shifts would move the market to about 57,200 ZEVs (26%) and 162,800 ICEs, without heavy reliance on credits or new subsidies.

Ripple Effects Beyond the Showroom

Pushing the ZEV share of new vehicle sales in B.C. from the current 16% to the required 26% through higher ICE prices and selective ZEV discounts won't just change the new-car mix. It triggers a series of knock-on effects across the market:

- **Higher ICE transaction prices**. Average ICE prices rise from about $66,000 to $81,800, about $15,800 per vehicle. Automakers shift supply toward premium trims and higher-end models, to partially compensate for lower sales. Entry-level ICE models become scarce. As more vehicles cross B.C.'s luxury tax thresholds and some surpass the $100,000 mark, making them pay the federal luxury tax, buyers face additional cost pressures.
- **Pressure on the used market**. With new ICE vehicle prices up sharply, many households turn to used vehicles. This drives up used car prices and keeps older models on the road longer.
- **Affordability squeeze**. Lower-income households and those seeking budget ICE models are hit hardest, facing higher prices, fewer entry-level options, and added competition in the used market.
- **Geographic inequities**. In rural and northern communities, where ZEVs are less practical and public charging is less available, capped ICE supply and a shift to premium trims could create shortages of suitable vehicles at affordable prices.
- **Environmental trade-off**. More ZEVs enter the fleet, but delayed retirement of older, higher-emitting vehicles partly offsets the near-term emissions benefit.

Supply Caps Without Price Changes

Automakers could also choose to limit the number of gas-powered vehicles they release in B.C., roughly 162,000 in this scenario, while leaving sticker prices unchanged. But shortages would still push costs up. Dealers can add market adjustment markups or mandatory add-ons, and some buyers may flip vehicles or bring them in from other provinces to resell at a profit. Taxes and other regulations may restrict how far this goes, but the incentive exists whenever supply is rationed.

The outcome for consumers looks much the same: higher effective prices, fewer affordable options, longer wait times, and spillover into the used-car market. In other words, even without official price hikes, the shortage itself would deliver many of the same pressures as the price-adjustment scenario.

Conclusion and Policy Implications

The ripple effects described above are not forecasts, but they are plausible distortions when mandates run ahead of consumer demand. Policymakers face a clear trade-off. Tighter targets may accelerate ZEV adoption, but they also risk higher costs for consumers, uneven regional impacts, and slower environmental gains if older less efficient vehicles remain in use. Balancing climate goals with economic realities will require careful policy design that includes compliance flexibilities, consumer incentives, and infrastructure investment.

References

1. BC Minstry of Energy. (2024, July 30). B.C. Zero-Emission Vehicles Act & Regulation Guidance Document. Retrieved from https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/transportation/bc_zev_act_regulation_guidancedoc_2024.pdf
2. Energy Futures Institute. (2025, June 19). EV sales are falling, but expensive Government Mandates remain. Retrieved from https://energyfuturesinstitute.ca/news-releases/f/ev-sales-are-falling-but-expensive-government-mandates-remain
3. Leard, B., & Wu, Y. (2023, August). New Passenger Vehicle Demand Elasticities: Estimates and Policy Implications. Retrieved from Reources for the Future, Working Paper 23-33: https://media.rff.org/documents/WP_23-33.pdf
4. NCDA. (2025, March 5). Budget 2025 Doesn't Go Far Enough to Prepare For New Economic Reality/Impact of US Tariffs, Say BC's New Car Dealers. Retrieved from New Car Dealers Association of BC: https://www.newcardealers.ca/news-releases/budget-2025-doesnt-go-far-enough-to-prepare-for-new-economic-reality-impact-of-us-tariffs-say-bcs-new-car-dealers/#:~:text=The%20present%20Tax%20extends%20to,to%20a%20much%20higher%20level.
5. Statistics Canada. (2025, September 17). Table 20-10-0024-01 New motor vehicle registrations, quarterly, inactive. Retrieved from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=2010002401