

SUBMISSION

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The mid-term evaluation of the *Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations*: Additional consultations following the publication of the U.S. Safer Affordable Fuel Efficient Vehicles Final Rule

Clean Energy Canada is an independent think tank based at the Morris J. Wosk Centre for Dialogue at Simon Fraser University. We work to accelerate Canada's transition to a clean and renewable energy system.

We are pleased to submit these comments on the mid-term evaluation of the *Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations* following the publication of the U.S. Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021-2026. Our comments focus on the following subset of the questions for which Environment and Climate Change Canada (ECCC) is soliciting input:

5. Are there other data sources ECCC should be relying on for sales and technology cost projections? If so, please provide the data.
6. Should ECCC modify its planned methodology for comparing scenarios 1 & 2?
7. What other factors should be considered when determining the impact of the midterm evaluation on the greenhouse gas (GHG) emissions in Canada?
8. What else should be considered when determining the impact of the midterm evaluation on the competitiveness of the Canadian automotive sector?

Summary

Strong vehicle emission standards are vital to achieving Canada's GHG emission reduction targets, saving Canadians money on fuel, protecting public health, transitioning to zero-emission vehicles (ZEVs), and positioning Canada's auto sector to be competitive in the 21st century global economy.

We recommend that:

- ECCC determine Canada's *Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations* are no longer appropriate and initiate a new regulatory process.
- Amend the regulations to reinstate the original standards or further strengthen the standards in line with Canada's 2030 and 2050 climate targets.

In addition to maintaining or strengthening the 2021-2025 passenger vehicle emission regulations, we recommend that the federal government:

- Immediately begin the development of post-2025 passenger vehicle emission standards.
- Introduce a comprehensive package of policies to advance cleaner passenger vehicles, including, at a minimum, a national zero-emission vehicle standard, the clean fuel standard, expanded ZEV purchase incentives scaled to income, and the accelerated build out of charging stations within and between communities.
- Pair these policies with an auto industrial strategy that leverages our metal and mineral resources and re-tools our automotive sector to compete in the 21st century.

Canada has a car conundrum

Canada's automotive industry has been on a downward trajectory for the last two decades. Between 2000 and 2019, the number of vehicles assembled here decreased from three million to 1.9 million.¹ Over the same period, Canada saw a net loss of five assembly plants and fell from the fifth largest auto-producing country to the 12th.²

Meanwhile, greenhouse gas emissions from passenger vehicles continue to climb. The transportation sector accounts for 25% of total national emissions, and passenger vehicles represent nearly half of that amount.³ While other economic sectors are seeing a downward trend in emissions, transportation-related emissions have risen by 8% since 2015.⁴ One third of those additional emissions came from light-duty passenger trucks alone. A 2019 International Energy Agency report comparing fuel economy in global markets found that Canadians drive the largest, most polluting cars in the world.⁵

¹ Innovation Economy Council. (2019, July). *Factor Forward: How Advanced Manufacturing is Retooling Ontario's Industrial Heartland*.

https://www.marsdd.com/wp-content/uploads/2020/07/IEC_Factory_Forward_How_Advanced_Manufacturing_Is_Retooling_Ontarios_Industrial_Heartland_July_2020.pdf

² Ibid. See also, Sharpe, B. & Pelchat, J. (2020, May 1). Canada is falling behind on transition to electric vehicles. *Policy Options*. <https://policyoptions.irpp.org/magazines/may-2020/canada-is-falling-behind-on-transition-to-electric-vehicles/>

³ Environment and Climate Change Canada. (2020). *Greenhouse gas sources and sinks: executive summary 2020*. Government of Canada.

<https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/sources-sinks-executive-summary-2020.html#toc5>

⁴ Environment and Climate Change Canada. (2020). *Greenhouse gas emissions*. Government of Canada.

<https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/greenhouse-gas-emissions.html>

⁵ International Energy Agency. (2019, March). *Fuel Economy in Major Car Markets*.

<https://www.iea.org/reports/fuel-economy-in-major-car-markets>

The solution to this conundrum is increasing zero-emission vehicle adoption among Canadians and positioning Canada's auto industry to manufacture those vehicles here. Strong auto emission regulations are crucial to achieving both.

We cannot meet (or beat) our climate targets with weak auto emission standards

Under the Paris Agreement, Canada committed to reducing GHG emissions by 30% below 2005 levels by 2030. The most recent projections in Canada's Fourth Biennial Report on Climate Change indicate that Canada is on track to miss the 2030 target—as it has missed every GHG emissions target the government has ever set.⁶

The expected GHG emission reductions between 2017 and 2030 come mostly from electricity and transportation, which would deliver 50 Mt and 21 Mt of reductions, respectively.⁷ The 21 Mt of emission reductions in the transportation sector rely on those reductions that would be achieved through the original passenger vehicle emission regulations—the highest impact transportation-related measure listed in the document by far.

Indeed, the sizeable emission reduction impacts of the passenger vehicle emission regulations are mentioned throughout the Fourth Biennial Report:

“[In] the transportation sector, growing economic activity in Canada affects the number of freight trucks on the road, thus emissions from the freight transportation subsector are projected to rise. However, more than offsetting this trend are the Government of Canada's Light-duty vehicles (LDV) GHG emissions standards for the LDV model years 2011 to 2025, which are causing the average emissions intensity for all on-road passenger vehicles to decline through the projection period.” (p. 116)

“These [Light-duty vehicles (LDV-1) GHG emissions] regulations will achieve significant and sustained GHG reductions and fuel-savings benefits.” (p. 122)

By remaining aligned with the weakened U.S. vehicle emission regulations, the International Council on Clean Transportation estimates that Canada can expect nearly 6 million tonnes more GHG emissions in 2030—effectively erasing 29% of the emission reductions the government expected to glean from the transportation sector.⁸

⁶ Canada would have to produce a total of 511 Mt in 2030 to meet its goal. The Fourth Biennial Report estimates that Canada will still produce 588 Mt of GHG emissions in 2030, or only 19% below 2005 levels, even in the most aggressive scenario, which includes emission reductions from both “additional measures” not yet implemented, as well as those from the Land Use, Land-Use Change and Forestry sector. Government of Canada. (2019). *Canada's Fourth Biennial Report on Climate Change*. https://unfccc.int/sites/default/files/resource/br4_final_en.pdf

⁷ Ibid.

⁸ International Council on Clean Transportation. (2020, April). *Fact Sheet: Canada's Passenger Vehicle Greenhouse Gas Standards*. <https://theicct.org/sites/default/files/publications/Canada%20CAFE%20standards%2C%20Fact%20sheet.pdf>

Given the federal government's heavy reliance on the original vehicle emission regulations in working towards Canada's 2030 climate targets—and with no new transportation-related policies being announced in their place—there is no way to make the GHG emission reduction numbers work under a weaker vehicle emission standard scenario.

Supply-side policies are needed for widespread zero-emission vehicle adoption

Canada has set light-duty zero-emission vehicle sales targets of 10% by 2025, 30% by 2030, and 100% by 2040.⁹ There is currently no policy framework in place to achieve these targets.

Electric cars made up 3% of all vehicle sales across the country in 2019.¹⁰ Transport Canada estimates that zero-emission vehicles will make up only 4% to 6% of all new light-duty vehicles purchased by 2025 and 5% to 10% by 2030—and this assumes the original passenger vehicle emission standards are in place.¹¹ Third party modeling by Navius Research shows even less optimistic projections: under current policies, ZEVs are projected to account for only 3.7% of new light-duty vehicle sales by 2025, 7.3% by 2030, and 14% by 2040.¹²

Existing federal and provincial purchase incentives and charging infrastructure investments are working to drive EV demand. The federal government's Incentive for Zero-Emission Vehicles (iZEV) rebate program has seen aggressive uptake. Launched in May 2019, nearly half of the program's three year budget (\$134 million) was spent in the first eight months.¹³ As of July 2020, the iZEV program has benefited over 53,000 Canadians and Canadian businesses, totaling almost \$225 million in incentives.¹⁴

In Canada, first quarter 2020 EV sales were up 50% compared to the previous year, even amid the coronavirus-induced recession.¹⁵ All vehicle sales in Canada declined in the second quarter of 2020 due to widespread economic shutdowns. But if we look at the first half of 2020 overall, EV sales still outperformed internal combustion engine sales, decreasing 23% year-on-year, compared to 37%.¹⁶

⁹ Transport Canada. (2020). *Zero-emission vehicles*. Government of Canada.

<https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles>

¹⁰ International Energy Agency. (2020, June). *Global EV Outlook 2020*.

https://webstore.iea.org/download/direct/3007?fileName=Global_EV_Outlook_2020.pdf

¹¹ Transport Canada. (2020). *Zero-emission vehicles*. Government of Canada.

<https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles>

¹² International Council on Clean Transportation. (2020, March). *Simulating zero emission vehicle adoption and economic impacts in Canada*. <https://theicct.org/publications/zev-impacts-canada>

¹³ Federal electric-car rebate uses nearly half its 3-year budget in 8 months. (2020, January 28). *CBC News*.

<https://www.cbc.ca/news/canada/british-columbia/electric-car-rebate-canada-half-its-3-year-budget-in-8-months-1.5443129>

¹⁴ Data provided via email by Transport Canada on July 29, 2020.

¹⁵ Electric Vehicle Sales in Canada – Q1 2020. Electric Mobility Canada. (not published)

¹⁶ The percentage change in EV sales was calculated using Electric Mobility Canada's EV sales data updated for the second quarter of 2020. (not published) The percentage change in internal combustion engine vehicle sales was calculated using Statistics Canada data for all new vehicle sales in the first and second quarters of 2019 and 2020, less the electric vehicle sales numbers indicated by Electric Mobility Canada. Statistics Canada. (2020). *New motor vehicle sales*. Government of Canada. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=2010000101>

According to Electric Mobility Canada, EV market share grew in every province across the country between the first half of 2019 and the first half of 2020.¹⁷

But a lack of EV supply is proving to be a major barrier to uptake. A February 2020 study commissioned by Transport Canada found that nearly 70% of dealerships in Canada did not have a single EV available to purchase or test drive.¹⁸ And the majority of them cited wait times of three to six months before a potential buyer could drive an EV off the dealership lot. That same study found that the number of EV makes and models available in Canada actually decreased between 2018 and 2019, despite growing demand and an increasingly supportive policy environment. Adding to the problem is that EV supply is unevenly distributed across provinces and territories, with 78% of Canada’s total inventory being located in Quebec and British Columbia—the two provinces with purchase incentives and sales requirements in place.

In short, EV supply is not keeping up with demand. More ambitious supply-side policies such as the passenger vehicle emission standards are needed to secure EV supply and make sure Canadians have access to cleaner cars. While ECCC assumes that Canada is a “technology taker” and thus vehicles available to Canadians will improve at the same rate as those in the U.S., experience in Quebec and B.C. suggests that Canada’s moving forward with more ambitious vehicle emission standards could cause automakers to concentrate their supply of fuel-efficient and electric vehicles here.

Canadians support strong auto emission standards because they benefit consumers

In a recent public opinion survey conducted by Pollara on behalf of Clean Energy Canada, two-thirds of Canadians were supportive of the current vehicle emission standards.¹⁹ Just 14% favoured the federal government freezing the standards, compared to 27% who said strengthen, and 36% who said maintain.

Canadians frequently cited cutting pollution, improving public health, improving vehicle efficiency, and spending less on gas as reasons for their support. And there is data to back up their views: Health Canada estimates more than 14,600 premature deaths were linked to air pollution in 2019.²⁰ The social, economic, and public welfare consequences totaled about \$114 billion per year. Regulations limiting tailpipe emissions from vehicles play a key role in reducing local air pollutants, such as particulate matter and nitrogen oxides, and ultimately save lives.

¹⁷ Electric Vehicle Sales in Canada – Q2 2020. *Electric Mobility Canada*. (not published)

¹⁸ Dunsky Energy Consulting. (2020, April). *Plug-in Electric Vehicle Availability - Estimating PEV Sales Inventory in Canada: Q1 2020 Update*.

https://www.dunsky.com/wp-content/uploads/2020/07/DunskyZEVAvailabilityReport_Availability_20200805.pdf

¹⁹ Pollara Strategic Insights. (2019, January). *Light-Duty Vehicle Emission Standards in Canada: Public Perspectives and Preferences Overview of Key Findings*.

https://cleanenergycanada.org/wp-content/uploads/2019/04/Pollara_CEC-LDVES-Rpt_Short.pdf

²⁰ Health Canada. (2019, June). *Health Impacts of Air Pollution in Canada: Estimates of morbidity and premature mortality outcomes*. Government of Canada.

http://publications.gc.ca/collections/collection_2019/sc-hc/H144-51-2019-eng.pdf

Strict vehicle regulations that deliver more fuel-efficient cars similarly save Canadians money. The International Council on Clean Transportation forecasts that the average car built to comply with 2025 standards will save about \$383 per year on fuel.²¹ That same analysis finds that pickup trucks and SUVs built to 2025 standards would see annual savings of \$662. And these benefits to consumers quickly outweigh the added technology costs to manufacturers, with the annual fuel savings for an average vehicle meeting the 2025 standards exceeding the extra cost of the vehicle after just two years.²² Moreover, the costs to comply with 2025 standards have declined significantly since 2014, making the standards increasingly cost-effective.

Moving forward with strong vehicle emission standards will put the health and economic well-being of Canadian consumers first.

Following Trump is placing the wrong bet

The Trump administration's SAFE final rule has been widely criticized for containing "significant inaccuracies and technical errors." Not only does this call into question the substance of the rule, it also makes the rule vulnerable to repeal.

Prior to the SAFE rule's finalization, the White House's own economists warned the U.S. Environmental Protection Agency (EPA) of concerns with the government's cost-benefit analysis backing the rule.²³ As we saw in the EPA's presentation on August 24, 2020, the U.S. final rule is expected to result in a net cost to society of \$22 billion.²⁴ The regulations reduce the average price of a vehicle by \$977 but also raise the amount spent on gas by \$1,461, leaving consumers worse off. Moreover, the analysis accompanying the rule predicts it will save about 685 lives, but cause an additional 440 to 1,000 premature deaths from air pollution due to increased smog and other pollution. Ultimately, the EPA and the Department of Transportation finalized the rule without addressing these concerns, providing reasonable grounds to believe that the rule will not withstand legal challenges. Further, in July 2020, the U.S. EPA's Office of Inspector General announced it would investigate whether the reversal of Obama-era vehicle emission standards violated government rules.

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Automakers understandably prefer a single set of harmonized standards. But the U.S.-Canada auto market is already split and automakers are being forced to hedge their bets on what set of standards they should be building to.

²¹ International Council on Clean Transportation. (2019, September). *Assessing Canada's 2025 passenger vehicle greenhouse gas standards: Benefits analysis*. <https://theicct.org/publications/canada-2025-cape-standards-benefits>

²² International Council on Clean Transportation. (2020, April). *Fact Sheet: Canada's Passenger Vehicle Greenhouse Gas Standards*. <https://theicct.org/sites/default/files/publications/Canada%20CAFE%20standards%2C%20Fact%20sheet.pdf>

²³ Joselow, M. (2020, May 19). White House warned EPA about legal concerns, 'spurious' tone. *E&E News*.

<https://www.eenews.net/stories/1063176467>

²⁴ Ibid.

²⁵ Shepardson, D. (2020, July 27). Inspector general to review U.S. EPA vehicle emissions rewrite. *Reuters*.

<https://www.reuters.com/article/us-autos-emissions/inspector-general-to-review-u-s-epa-vehicle-emissions-rewrite-idUSKCN24S2G7>

In September 2019, California and a group of 22 other states, plus the District of Columbia and the cities of New York and Los Angeles, sued the Trump administration seeking to block its decision to revoke the state's authority to set its own vehicle emission standards.²⁶ In May 2020, the same group of states, along with D.C. and four major cities, filed a lawsuit challenging the final rule.²⁷ Large auto-producing states Michigan and Illinois were among the states challenging the weaker standards.

U.S. states continue to adopt California's vehicle emission standards, even after Trump revoked California's authority to set its own. As of June 2020, 14 U.S. states and D.C. had adopted California's stronger vehicle emission standards, accounting for more than 40% of U.S. vehicle sales.²⁸ Nevada, Minnesota, and New Mexico have signalled plans to do the same, which would increase that share further.²⁹ Add Canada to that list and stronger auto emission standards would cover nearly 50% of the Canada-U.S. light-duty vehicle market. As Margo Oge, former head of the U.S. EPA's transportation office under Mr. Obama, previously stated, "... [if] you have Canada ... say 'we are going to join California,' I think that sends a huge message to the car companies."³⁰

Automakers are similarly split. Five major automakers—Ford, Honda, BMW, Volkswagen and Volvo—signed binding agreements to follow California's stricter tailpipe emissions rules in August 2020.³¹ The other states following the stronger standards have agreed to enforce the new agreement as well, expanding the deal's impact beyond California's borders.³² Rather than reverting to less efficient technologies, which would undermine their competitiveness, these automakers are thinking ahead.

The issues of whether California can set its own vehicle emission standards and whether the Trump administration's final rule is legally sound will be caught up in the U.S. court system for some time. The upcoming U.S. election in November 2020 provides further uncertainty, as Democratic

²⁶ *California, et. al. v Chao*, No. 1:19-cv-2826, Doc. 1 (D.C. Cir., filed September 20, 2019).

https://oag.ca.gov/system/files/attachments/press_releases/California%20v.%20Chao%20complaint%20%2800000002%29.pdf

²⁷ In addition to California, the other states are: Colorado, Connecticut, Delaware, Hawaii, Illinois, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, Washington and Wisconsin. San Francisco, Los Angeles, Denver, New York City and Washington, D.C., also joined in the lawsuit. *California, et. al. v Wheeler*, No. 20-1167 (D.C. Cir., filed May 27, 2020).

<https://oag.ca.gov/system/files/attachments/press-docs/5.27.20%20Petition%20for%20Review.pdf>

²⁸ The states that have adopted California's vehicle emission standards include: Oregon, Washington, Maine, New York, Pennsylvania, Delaware, Maryland, New Jersey, Connecticut, Massachusetts, Rhode Island, Vermont, and Colorado. Shepardson, D. (2020, June 22). Nevada to join other states in adopting California zero emission vehicle rules. *Reuters*.

<https://www.reuters.com/article/us-autos-emissions-usa/nevada-to-join-other-states-in-adopting-california-zero-emission-vehicle-rules-idUSKBN23U005?il=0>

²⁹ *Ibid.* See also, Shepardson, D. (2019, September 25). Minnesota, New Mexico to adopt California vehicle emissions rules.

Reuters. <https://www.reuters.com/article/us-autos-emissions-california-minnesota-idUSKBN1WA2Sj>

³⁰ Radwanski, A. (2019, December 29). Canada's conundrum on auto emissions: Follow Trump's retreat or take risky leadership role in climate fight. *The Globe and Mail*.

<https://www.theglobeandmail.com/business/article-canadas-conundrum-on-auto-emissions-follow-trumps-retreat-or-be-a/>

³¹ California Air Resources Board. (2020). *Framework Agreement on Clean Cars*. Government of California.

<https://ww2.arb.ca.gov/news/framework-agreements-clean-cars>

³² Davenport, C. (2020, August 17). Defying Trump, 5 automakers lock in a deal on greenhouse gas pollution. *The New York Times*. <https://www.nytimes.com/2020/08/17/climate/california-automakers-pollution.html?smid=tw-share>

Frontrunner Joe Biden has vowed to implement “ambitious fuel economy standards” and a suite of other measures to advance clean cars.³³

Canada is inevitably making decisions in a highly uncertain regulatory and political environment. Erring on the side of more ambitious standards will preserve projected emission reductions, save Canadian consumers money, and safeguard our auto sector from losing competitive ground.

Out of step with global standards

The Trump administration’s rollback puts the United States out of step with the rest of the global auto market, where regions like the European Union and Japan have adopted vehicle emission standards that are among the strongest in the world.³⁴ And while Trump used the COVID-19 pandemic to reverse course on vehicle emissions and electrification, other countries have used it to forge ahead.

European leaders have maintained a strict fleetwide CO₂-emission target of 95 grams of CO₂ per kilometer by 2021, despite the COVID-19 pandemic.³⁵ They have also introduced new purchase subsidies, tax breaks, and charging infrastructure investments as part of their recovery package to accelerate the transition to EVs. As a result, many major European-based auto manufacturers have publicly committed to reaching the target and have rolled out an unprecedented number of battery-powered-EV and plug-in hybrid-EV models (42 models in the first quarter of 2020 alone).³⁶ And now the European Commission is proposing that the European Union further tighten its auto emissions limits, increasing mandatory CO₂ fleet emission reduction targets for passenger cars to 50% by 2030 against the baseline of 95 g/km in 2021.³⁷

These policies and regulations make a difference. Europe saw a surge in EV sales the first half of this year, while internal combustion engine sales fell.³⁸

³³ Biden Harris Campaign. (2020). *The Biden plan to build a modern, sustainable infrastructure and an equitable clean energy future*. <https://joebiden.com/clean-energy/>

³⁴ International Council on Clean Transportation. (2019, April). *Overview of Global Zero-Emission Vehicle Mandate Programs*. <https://theicct.org/sites/default/files/publications/Zero%20Emission%20Vehicle%20Mandate%20Briefing%20v2.pdf>;

International Council on Clean Transportation. (2019, September). *Japan 2030 Fuel Economy Standards*. https://theicct.org/sites/default/files/publications/Japan_2030_fuel_standard_update_20191007.pdf

³⁵ Gersdorf, T., Hensley, R., Hertzke, P. & Schaufuss, P. (2020, September 16). *Electric mobility after the crisis: Why an auto slowdown won’t hurt EV demand*. McKinsey & Company.

<https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/electric-mobility-after-the-crisis-why-an-auto-slowdown-wont-hurt-ev-demand>

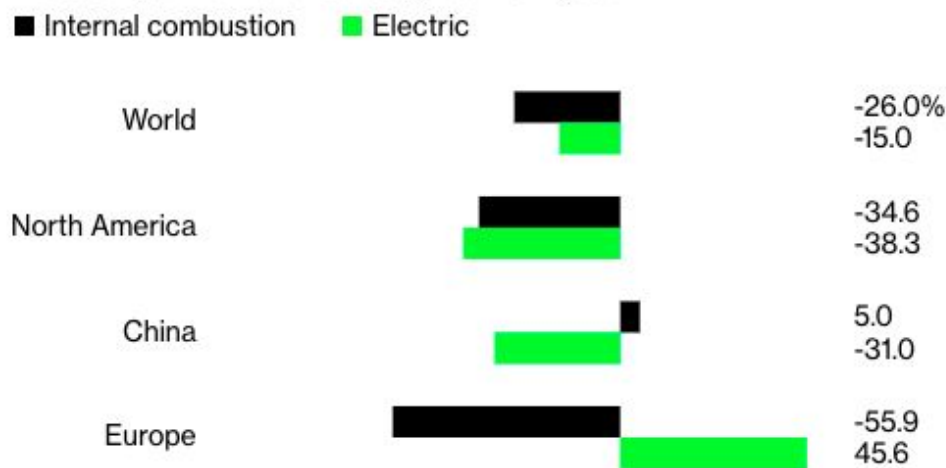
³⁶ Ibid.

³⁷ European Commission to propose more ambitious emissions limits for autos: draft. (2020, September 11). *Reuters*.

<https://www.reuters.com/article/us-climate-change-eu-target-autos/european-commission-to-propose-more-ambitious-emissions-limits-for-autos-draft-idUSKBN2622N2>

³⁸ Bullard, N. (2020, September 10). In a bumper year for auto sales, EVs are outperforming. *Bloomberg Green*.

<https://www.bloomberg.com/news/articles/2020-09-10/electric-vehicle-sales-in-europe-outperform-u-s-china-and-combustion-engines?sref=52ZW06YM>



Source: BloombergNEF
 Note: electric includes plug-in hybrids. "Europe" is Europe's 16 major auto markets.

Figure 1: Internal combustion engine vs electric passenger vehicle sales in major global markets, % change between Q1/Q2 2019 and Q1/Q2 2020. (BNEF, 2020).

Bloomberg NEF predicts that “the combination of new stimulus programs, new model launches, and automakers pushing to hit their carbon dioxide emissions targets should keep the market growing.”³⁹ A recent McKinsey analysis echoes these predictions, forecasting that EV market share in the EU will be greater than pre-pandemic projections.⁴⁰

Meanwhile, the U.S. is seeing reversed trends. Trump’s rollback of auto emission rules, combined with low oil prices and few incentives for EVs have led to dwindling sales and a “lacklustre” EV market.⁴¹ American auto manufacturers are delaying the start of EV model production instead of forging ahead. Bloomberg New Energy Finance found that sales of both internal combustion engine vehicles and EVs fell in North America (driven largely by trends in the U.S.).⁴² And McKinsey forecasts that, in contrast to Europe, U.S. EV market share will be lower than pre-pandemic projections.⁴³

³⁹ Ibid.

⁴⁰ Gersdorf, T., Hensley, R., Hertzke, P. & Schaufuss, P. (2020, September 16). *Electric mobility after the crisis: Why an auto slowdown won’t hurt EV demand*. McKinsey & Company. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/electric-mobility-after-the-crisis-why-an-auto-slowdown-wont-hurt-ev-demand>

⁴¹ Ibid.

⁴² Bullard, N. (2020, September 10). In a bumper year for auto sales, EVs are outperforming. *Bloomberg Green*. <https://www.bloomberg.com/news/articles/2020-09-10/electric-vehicle-sales-in-europe-outperform-u-s-china-and-combustion-engines?sref=52ZWO6YM>

⁴³ Gersdorf, T., Hensley, R., Hertzke, P. & Schaufuss, P. (2020, September 16). *Electric mobility after the crisis: Why an auto slowdown won’t hurt EV demand*. McKinsey & Company. <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/electric-mobility-after-the-crisis-why-an-auto-slowdown-wont-hurt-ev-demand>

Canada now has the opportunity to choose which electric vehicle future it wants through the policies and regulations it puts in place. By aligning with Trump, Canada would be signing up for the dimmer forecast.

Drive change in an industry in need of transformation

Electric car sales topped 2.1 million globally in 2019, driven by ambitious policies in various parts of the world that are sending clear, long-term signals for consumers and industry that the transition toward zero-emission vehicles will only increase over time.⁴⁴

Canada is the 12th largest vehicle producer in the world but significantly trails other countries on electric vehicles.⁴⁵ Canada accounts for 2.2% of global light-duty vehicles made, but only 0.4% of global electric vehicles made. Other auto-producing countries such as the United Kingdom, France, the U.S., and Germany have a share of electric production that is proportional to or higher than their total vehicle production.⁴⁶

In 2019, Reuters analyzed budget announcements made by global automakers and found that \$300 billion was earmarked for EV technologies.⁴⁷ None of that investment is currently destined for Canada. Chrysler, Ford, General Motors, Honda, and Toyota production facilities in Ontario are dominated by internal combustion vehicles, while these same companies are making billion-dollar investments to produce electric vehicles in China, Europe, and the United States.⁴⁸ McKinsey forecasts that global battery electric vehicle-related capital expenditures could increase to about \$120 billion over the next five years, while investments in other vehicles decline.⁴⁹ Morgan Stanley puts that number at up to \$500 billion over the same period of time.⁵⁰ We need better policies and incentives in place to ensure Canada's auto sector captures a share of those investments.

Minister Bains recently stated that, "... [t]he opportunity for Canada to be a leader in electric transportation is enormous."⁵¹ Projections by Navius Research ground this statement in analysis

⁴⁴ International Energy Agency. (2020, June). *Global EV Outlook 2020*.

https://webstore.iea.org/download/direct/3007?fileName=Global_EV_Outlook_2020.pdf

⁴⁵ International Council on Clean Transportation & Pembina Institute. (2020, April). *Power Play: Canada's Role in the Electric Vehicle Transition*. <https://theicct.org/sites/default/files/publications/Canada-Power-Play-ZEV-04012020.pdf>

⁴⁶ Ibid.

⁴⁷ Lienert, P., Shirouzu, N., Taylor, E. (2019, January 10). Exclusive: VW, China spearhead \$300 billion global drive to electrify cars. *Reuters*. <https://ca.reuters.com/article/businessNews/idCAKCN1P40G6-OCABS>

⁴⁸ International Council on Clean Transportation & Pembina Institute. (2020, April). *Power Play: Canada's Role in the Electric Vehicle Transition*. <https://theicct.org/sites/default/files/publications/Canada-Power-Play-ZEV-04012020.pdf>

⁴⁹ McKinsey Center for Future Mobility. (2020, September 3). *Improving battery-electric-vehicle profitability through reduced structural costs*. McKinsey & Company.

<https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/improving-battery-electric-vehicle-profitability-through-reduced-structural-costs>

⁵⁰ Who will rule the Teslaverse. (2020, September 17). *The Economist*.

<https://www.economist.com/business/2020/09/17/who-will-rule-the-teslaverse>

⁵¹ Bains, N. (2020, September 17). Mining gives Canada a competitive advantage in electric vehicle market. *Policy Options*.

<https://policyoptions.irpp.org/magazines/september-2020/mining-gives-canada-a-competitive-advantage-in-electric-vehicle-market/>

showing that Canada's zero-emission vehicle industry could support 1.1 million jobs and a GDP of \$152 billion by 2040 if Canada reaches its ZEV sales targets.⁵² And these projections do not assume or incorporate any major EV or battery manufacturing activity, which could see the employment and economic benefits rise to much higher levels.

Minister Bains also insisted that “returning Canada’s auto industry to pre-COVID levels will take more than just the status quo.” Unifor President Jerry Dias has similarly stated that Canada’s automotive industry is at “a crossroads” and if Canada does not harness this opportunity to ramp up its capacity to produce electric vehicles, Canadian workers will be left behind.⁵³ He called for a “transformation of the industry” and urged the government to “get serious.”

On September 22, 2020, Ford Motor Company reached a deal with Unifor to invest nearly \$2 billion into the production of five EVs in Oakville, which reported federal and provincial investments likely helped to shepherd through.⁵⁴ Canada’s 2020 Speech from the Throne referred to ZEV and battery manufacturing as an example of “adapting to a carbon neutral future,” promising support to make ZEVs affordable for Canadians and tax breaks to companies that manufacture zero-emission products here.⁵⁵

If Canada is serious about transforming the auto sector, we need not only “carrots” but “sticks” too. Stronger vehicle emission standards will require Canada’s auto industry to innovate and move more aggressively towards electrification, strengthening its competitiveness in the global economy.

A clean cars policy package

Ambitious vehicle emission standards must be part of a larger policy package that addresses both supply and demand-side barriers to EV uptake, while also ensuring Canada’s auto sector captures the economic benefits of the domestic and global shift to electric vehicles through an industrial strategy that looks at opportunities across the entire electric vehicle supply chain. This policy package must include, at a minimum, a national ZEV standard, expanded purchase incentives scaled to income, faster installation of public charging stations, and a clean fuel standard. Paired with an auto industrial strategy that builds upon our automotive heritage and leverages our metal and mineral resources, we

⁵² International Council on Clean Transportation. (2020, March). *Simulating zero emission vehicle adoption and economic impacts in Canada*. <https://theicct.org/publications/zev-impacts-canada>

⁵³ MacCharles, T. (2020, September 1). Weakened by the WE scandal, Justin Trudeau asks Liberal MPs for advice on his government’s next moves. *Toronto Star*. <https://www.thestar.com/politics/federal/2020/09/01/weakened-by-the-we-scandal-justin-trudeau-asks-liberal-mps-for-advice-on-his-governments-next-moves.html>

⁵⁴ O’Kane, J. (2020, September 25). Ford deal paves way for electric vehicles. *The Globe and Mail*. <https://www.theglobeandmail.com/business/article-unifor-and-ford-reach-tentative-deal-with-investment-from-ottawa/>; Scofield, H. (2020, September 21). Ottawa says governments offering \$500M to bring electric vehicle production to Ford’s Oakville plant. *Toronto Star*. <https://www.thestar.com/politics/federal/2020/09/20/ottawa-offering-500m-to-bring-electric-vehicle-production-to-fords-oakville-plant.html>

⁵⁵ Government of Canada. (2020). *Speech from the Throne to open the Second Session of the Forty-Third Parliament of Canada*. <https://www.canada.ca/en/privy-council/campaigns/speech-throne/2020/stronger-resilient-canada.html>

can solve our car conundrum: cutting carbon pollution and re-tooling our automotive sector to compete in the 21st century.

Going forward

In light of the reasons outlined above, ECCC must determine that Canada's *Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations* are no longer appropriate and initiate a new regulatory process to amend the regulation, reinstating the original standards or further strengthening the standards in line with Canada's 2030 and 2050 climate targets.

Given ECCC's indication that the regulatory process typically takes 18-24 months, work on Canada's post-2025 vehicle emission standards must begin immediately. The two regulatory processes could be combined to create a single set of standards covering model years 2023-2030.

Finally, Canada must move forward with a broader policy package of regulations and incentives that address electric vehicle supply and demand, as detailed above. With the right approach, Canada can achieve a trifecta of desired goals: cutting transportation pollution, increasing access to the cars Canadians want, and retooling our auto sector to compete in the 21st century.

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