



Achieving a **ZERO-EMISSION** Future for Light-Duty Vehicles:

Stakeholder Engagement
Discussion Document December 17



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Objectives

This discussion documents provides an overview of the integrated federal strategy to transition the light-duty vehicle sector to zero emission vehicles and updates since consultations on this strategy were last held in March 2021.

Environment and Climate Change Canada is seeking input on additional measures needed to achieve Canada's mandatory target for all new light-duty vehicles to be zero-emission by 2035, including:

- Setting an ambitious zero-emission vehicle sales target for 2025 and a 2030 target of at least fifty percent
- Mandating the sale of zero-emission vehicles
- Other key considerations

What we heard from stakeholders during consultations in March 2021

The Government of Canada conducted consultations in March with stakeholders to solicit feedback on measures to support zero-emission vehicle uptake in the light-duty vehicle market. Below is a summary of the feedback received during the consultation period.

- There is a continued need for a holistic approach to combine any regulations with complementary demand-side measures, including incentives, infrastructure, consumer awareness, and education
 - Stakeholders highlighted the importance of matching the magnitude of Canadian measures with US demand-side measures
- There were many diverse views on regulatory approaches to address zero-emission vehicle supply.
 - There was a general agreement for continued alignment with United States greenhouse gas standards as an important means to reduce greenhouse gas emissions from vehicles while ensuring the ongoing competitiveness of the industry
 - Some felt a zero-emission vehicle standard approach would be needed to drive transformational change and create the market certainty necessary to accelerate the transition to zero-emission vehicles and to make decisions and long-term investments required (including electricity generation and distributors)
 - Opinions on implementing a zero-emission vehicle standard were more diverse, with most vehicle manufacturers disagreeing with its application, and non-governmental organizations strongly in favor citing how it can drive electrification while providing a strong long-term investment signal
- Many stakeholders highlighted the Importance of coordination within Canada and North America.

- According to stakeholders, Environment and Climate Change Canada needs to work with United States administration on a coordinated North American approach, as well as on a consistent national approach within Canada
- A federal zero-emission vehicle standard would require mechanisms to address regional differences and ensure adequate supply in all provinces, not just BC and Quebec

Decarbonizing On-Road Transportation Requires an Integrated Federal Approach

In April, Canada set a national emissions reductions target in 2030 of forty to forty five percent greenhouse gas reductions below 2005 levels. In order to achieve this goal, the transportation sector, which accounts for twenty five percent of domestic greenhouse gas emissions, will need to heavily decarbonize. Nearly eighty five percent of this sector's emission come from on-road transportation, and light-duty vehicles alone count for half of the sector's emissions. While greenhouse gas emissions from the light-duty vehicle sector have increased every year since 2015, it has also become the sector with the most advanced zero-emission vehicle offerings in the entire market, making these vehicles a key component of transportation decarbonisation.

In the Enhanced Climate Plan, Canada committed to continue aligning with the most ambitious North American performance-based greenhouse gas standards for post-2025 vehicles while also mandating the sale of zero-emission vehicles to achieve the mandatory zero-emission vehicle sales target of one hundred percent by 2035. In June, the Government set a mandatory zero-emission vehicle sales target of one hundred percent by 2035 while also committing to consult on both mandatory measures and interim 2025 and 2030 zero-emission vehicle sales targets. In the November Throne Speech, the Government of Canada stated it would mandate the sale of zero-emission vehicles to help Canadians breathe cleaner air.

Additional progress has also been made at the provincial level in setting goals for future zero-emission vehicle adoption. The Government of Quebec announced in its 2030 Plan for a Green Economy to have one and a half million electric vehicles on the road in Quebec in 2030 and no sales of new gasoline-powered cars and passenger trucks as of 2035. The government of BC has set new light-duty zero-emission vehicle sales targets of twenty six percent by 2026, ninety percent by 2030 and one hundred percent by 2035 in its Roadmap to 2030.

Federal Policy Levers for Zero-Emission Vehicle Deployment

As the Government of Canada works on future zero-emission vehicle policies, it has a number of federal policy levers it could utilize in order to achieve these goals, including:

- Awareness and Training
 - Fund tools and information to raise awareness and confidence in decarbonization options, and stimulate shift to greener operations; support training and certification in use of new technologies, fleet assessments, benchmarking, and other areas
- Incentives

- Catalyze the transition to low- and zero-emission alternatives through financial support to offset higher cost, promote early adoption and send signals to industry on product demand
- Industrial & Supply Chain Transition
 - Help develop capacity to manufacture clean technologies, fuels and critical minerals
- Infrastructure
 - Build the enabling charging and refueling infrastructure to support the transition and scale-up to low- and zero-carbon alternatives
- Regulations
 - Align with the most stringent North American greenhouse gas standards for vehicles, mandate the sales of zero emission vehicles and explore if other mandatory measures are needed
- Research, Development & Demonstration
 - Funding research and development in areas not commercially proven, pre-regulatory work, safety and performance on technologies, fuels, batteries and enabling infrastructure
- Stewardship & Partnership
 - Stimulate market via federal procurement, supporting Greening Government Strategy, and work with key stakeholders, partners and like-minded states to align and leverage efforts, and advance norms and ambition

Continued alignment with United States

Historically, Canada has incorporated the greenhouse gas standards for light-duty vehicles of the United States by reference into Canada's regulations, meaning that Canada automatically adopts new United States standards once the United States finishes finalizing them. The Biden administration has announced new standards for model year 2023-2026 vehicles, which are expected to be finalized by December 2021, along with indicating that even more stringent standards for post-model year 2026 will be determined in 2024.

While the United States has established a goal of fifty percent zero-emission vehicles by 2030, it has not announced any national sales targets for 2035 as Canada has. However, the state of California, which accounts for a significant portion of the overall US automotive market, has set a course to end sales of internal combustion passenger vehicles by 2035.

Getting to one hundred percent Zero-Emission Vehicle sales by 2035

Government is committed to work with partners to develop interim targets, mandating the sale of zero-emission vehicles, and to develop additional mandatory measures as needed to meet the mandatory zero-emission vehicle sales targets.

When designing policies for the Government of Canada to undertake, the following will be considered:

- Feasibility, costs and benefits of various approaches
- Approaches pursued by other jurisdictions
- Implications of non-aligned approaches within North America, the US and Canada

- Automakers' electrification commitments and competitiveness of Canada's automotive industry
- Other technological considerations (research and development on grid readiness, battery lifecycle, and critical mineral supply)

Key Discussion Questions:

- What should be the approach to achieving one hundred percent in 2035, including zero-emission vehicle sales of at least fifty percent in 2030?
- In addition to zero-emission vehicle sales targets of at least fifty percent by 2030 and one hundred percent by 2035, are additional interim targets needed to allow Canada to succeed? What should those targets be?
- The Government of Canada will be mandating the sale of zero-emission vehicles. How should this be designed and what should be considered to ensure its success? What are the mechanisms in other jurisdictions' mandatory zero-emission vehicle regulations that should be used or avoided?

Complementary Measures

The Government committed to using a combination of regulations and investments to ensure that Canada reaches the 2035 target. The Government has already invested more than one billion dollars to support consumers and industry.

Key Discussion Questions:

- In addition to the measures already implemented by the Government, are there other actions the Government should explore to complement the regulated sales mandate?
- What is the role of other actors, including the private sector, to help complement the regulated sales mandate?
- Should the Government scale up its existing efforts on incentives, infrastructure, and awareness and what are the priorities?
- Should Canada explore other options to close the price gap between zero-emission vehicles and ICE vehicles, including feebates or measures that prevent higher leasing and lending rates for zero-emission vehicles?

Other considerations

Achieving one hundred percent zero-emission vehicle sales may pose challenges for particular communities or households in Canada, including:

- Northern and remote regions (including off-grid communities)
- Lower-income households, before zero-emission vehicles get closer to price parity
- Those who use their vehicles in particularly challenging operating conditions

- Other technological considerations (research and development on grid readiness, battery lifecycle, and critical mineral supply)

Key Discussion Questions:

- What issues impede adoption of zero-emission vehicles in Northern and remote communities and by low-income households?
- How can the Government address these issues?
- What role should plug-in hybrid electric vehicles play in achieving the one hundred percent zero-emission vehicle sales target?
- What are the research and development gaps to support the uptake of zero-emission vehicle technologies and charging/refuelling solutions (such as higher-power charging solutions, vehicle-to-grid operation, energy storage, or other gaps)?
- What challenges and opportunities do you anticipate for the electricity grid as a result of accelerating our electric vehicle sales targets?
- What role does Canada's critical minerals and battery supply chain have in helping Canada achieve its zero-emission vehicle targets?
- What end of life electric vehicle battery strategies need to be in place to support our environmental goals while achieving the one hundred percent zero-emission vehicle target?

Next Steps

Environment and Climate Change Canada will be meeting with stakeholders over the coming five weeks to solicit further feedback to inform the Department's analysis and policy recommendations.

Written feedback from all stakeholders will be accepted until January 21, 2022 and should be sent to infovehiculeetmoteur-vehiculeandengineinfo@ec.gc.ca.