

## Reducing carbon emissions from road transportation through electric-assisted bikes, equity and subsidy solutions

In March 2022, through its Emissions Reduction Plan, Canada made its zero-emission vehicle (ZEV) sales target of 100% by 2035 official and has set new targets of 20% by 2026 and 60% by 2030. Canada will soon adopt a regulation that aims to increase the supply of ZEVs.

However, recent modeling shows that the policies announced or in effect as of 2022 were far too weak to reach these targets.<sup>72</sup> This challenge is compounded by an ever growing share of large, energy-inefficient vehicles such as sport utility vehicles (SUVs) among new vehicle sales. Energy-inefficient vehicles represented more than 80% of sales in 2022, while ZEVs accounted for just 8.9%. As a result, Canada has the world's highest emitting vehicle fleet, and efforts to electrify our cars and trucks, including massive investments, are being canceled out.

Achieving Canada's ZEV sales targets and reducing carbon emissions from the transport sector will require a comprehensive and coherent combination of measures aimed at sectoral transformation. Transportation represents the second largest household expense after housing. Transportation—especially the choice to use clean transportation—needs to be less of a burden on Canadians.

To achieve significant GHG emission reductions and transform Canada's transportation system, the Green Budget Coalition recommends prioritizing solutions that help reduce the number of personal vehicles on our roads, as well as their size. Notably, transition should occur using active, collective and shared transportation where possible (*see Save and improve public transit service, earlier in this document*), and be supported by smart and equitable electrification that rapidly boosts both demand and supply of ZEVs.

### 1. Rewarding sustainable mobility choices through electric-assisted bike subsidies and a new scrappage program

For a fair transition to low-emission, energy-efficient mobility, policies should focus on moving away from personal vehicles and towards collective and active modes of transport such as car sharing and cycling. The literature is clear on the fact that transitioning Canada's vehicle fleet to a fully electric fleet will not be enough to reach our climate targets. Additionally, fleet transition won't solve other issues related to personal car or truck dependency, such as traffic, safety and public health. To reduce the number of vehicles on the roads, rewarding individuals who leave their car at home or get rid of it altogether is key, especially when lower-income households are prioritized such as in Denver, Colorado.<sup>73</sup>

The federal government could also take inspiration from Nova Scotia's EV Assist program and France's subsidy programs, both of which provide a partial refund of the costs associated with purchasing an e-bike. Nova Scotia's EV Assist has been the most subscribed to portion of the provincial ZEV incentive program and has helped increase the socioeconomic diversity in program participants, offering equity and affordability benefits, in addition to the co-benefits associated with bike travel.<sup>74</sup>

72 Axsen, John & Chandan Bhardwaj, "Modelling a Zero-Emission Vehicle Standard and Subsidies in Canada's Light-Duty Vehicle Sector (2023-2035)", START (2022). [https://cms.equiterre.org/uploads/Clean\\_Car\\_Standard\\_Technical\\_Report\\_FINAL\\_ENG.pdf](https://cms.equiterre.org/uploads/Clean_Car_Standard_Technical_Report_FINAL_ENG.pdf) (report commissioned by Environmental Defence and Équiterre)

73 Base subsidy of \$350 for a conventional electric-assisted bike (EAB) and \$500 for a cargo version ; low-income household subsidy of \$1,200 for a conventional EAB and \$1,400 for a cargo version ; subsidy of \$1,400 for adapted EAB purchased by disabled people.

74 EV Assist, Nova Scotia, "Rebate" (2022). <https://evassist.ca/rebates/>

## COMPLEMENTARY RECOMMENDATIONS

In France, a subsidy is available to citizens who “scrap” an old car or truck, whether it is replaced by a ZEV, an e-bike or a regular bike, as part of a “conversion” component of its programs, and this subsidy can be partially combined with the existing ZEV purchase subsidy, an approach worth exploring in Canada.<sup>75</sup> Equity considerations are well integrated into the design of its programs.

### Recommended Investment: \$250 million over two years [TC]

- **\$75 million** to expand the iZEV program to help support the purchase of 50,000 electric-assisted bikes by offering, for example, a 50% purchase subsidy for low-income households (up to \$2,000) and 20% for medium- and high-income households (up to \$1,000).
- **\$175 million** to create a new scrappage program.
- Develop these new programs/sections with equity considerations.

## 2. Making zero-emission vehicles more accessible to people

To increase ZEV accessibility among Canadians, the House of Commons Standing Committee on Environment and Sustainable Development recently recommended that the Government of Canada allow used ZEVs to be eligible for incentives, taking inspiration from Québec, Nova Scotia and British Columbia among others, as well as scaling iZEV incentives to income.<sup>76</sup>

Such considerations can help broaden ZEV uptake by targeting low-income individuals and households. Where alternatives to automobile ownership are not viable, people must not be left behind. Studies show that, in addition to increasing equity, targeting incentives to low-income households makes purchase

75 Service-Public.fr, “Bonus vélo : les aides de l’État étendues jusqu’au 31 décembre 2023”. <https://www.service-public.fr/particuliers/actualites/A15906#:~:text=Le%20bonus%20est%20de%20400,%C3%AAtes%20en%20situation%20de%20handicap.>; Ministère de la Transition écologique et de la Cohésion des territoires, “Prime à la conversion, bonus écologique : toutes les aides en faveur de l’acquisition de véhicules propres” (2023). <https://www.ecologie.gouv.fr/prime-conversion-bonus-ecologique-toutes-aides-en-faveur-lacquisition-vehicules-propres>

76 ENVI Committee, “Report 3 – The Road Ahead: Encouraging the Production and Purchase of Zero-Emission Vehicles in Canada” (2021). <https://www.ourcommons.ca/Content/Committee/432/ENVI/Reports/RP11209745/envirp03/envirp03-e.pdf>

subsidy programs more cost-effective, “as wealthier households are more likely to buy an EV without any subsidy.”<sup>77</sup>

Québec’s *Roulez vert* program offers a rebate for used vehicles that is equal to 50% of the rebate that would be offered for the same vehicle if it was new (up to \$3,500), but the vehicle can only be eligible for a rebate once. Ontario offers a smaller rebate of \$1,000 when registering a used, fully electric vehicle without a limit on the number of registrations that qualify for the rebate.<sup>78</sup>

Additionally, an income cap for admissibility to the iZEV program could result in benefits being distributed among more families throughout Canada. For example, to be eligible for British Columbia’s full purchase incentive, an individual’s income must be below \$80,000, and a lower rebate is offered to those earning less than \$100,000 annually.<sup>79</sup> In California, in addition to its income cap for rebate eligibility, higher incentives are offered to low-income households, with a maximum qualifying income based on the household size (from USD \$51,520 to USD \$178,640).<sup>80</sup>

### Recommendations [TC] :

- Update the iZEV subsidy program:
  - Make used EVs eligible for the iZEV subsidy program; and
  - Scale ZEV purchase incentives to household income and put a cap on eligibility based on household income (e.g., \$100,000).

### Contact

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77 Sharpe, Ben & Gordon Bauer, “Low-income households could benefit the most from EVs, but we need policy fixes to make that happen,” Electric Autonomy Canada (2021). <https://electricautonomy.ca/2021/04/13/ev-equity-incentive-policies/>

78 However, the vehicle has to be registered and insured under the same owner for at least 12 months in order to be eligible another time.

79 British Columbia, “Passenger Vehicle Rebates” (2023). <https://goelectricbc.gov.bc.ca/personal-rebate-offers/passenger-vehicle-rebates/>

80 Asadollahi & Rous, “The Road Ahead to Low-Carbon Mobility” (2020). [https://legacy.equiterre.org/sites/fichiers/report\\_the\\_road\\_ahead\\_to\\_low-carbon\\_mobility\\_low\\_0.pdf](https://legacy.equiterre.org/sites/fichiers/report_the_road_ahead_to_low-carbon_mobility_low_0.pdf)