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Canadians' Awareness, Knowledge and Attitudes Related to Zero Emission Vehicles (ZEVs) – 2024

Final Report

Prepared for Natural Resources Canada

Supplier: EKOS RESEARCH ASSOCIATES INC.

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Canada 

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This research report presents the results of an online survey conducted by EKOS Research Associates Inc. on behalf of Natural Resources Canada. The research involved an online survey of 3,459 Canadians. The survey was conducted across Canada in both official languages. The field dates for the survey were January 17 to February 7, 2024.

Cette publication est aussi disponible en français sous le titre : Sensibilisation, connaissances et attitudes des Canadiens par rapport aux véhicules à émission zéro (VEZ) – 2024.

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TABLE OF CONTENTS

Summary	4
A. Background and Objectives	4
B. Methodology	5
C. Key Findings	5
D. Contract Value	11
E. Political Neutrality Certification	12
Detailed Findings	13
A. Intention to Purchase/Lease a Vehicle	13
B. Vehicle Usage	20
C. Ownership and Intention to Purchase/Lease an Electric Vehicle	23
D. Experience with Zero Emission Vehicles	28
E. Views on Zero Emission Vehicle Features	38
F. Awareness and Support for Government Rebates/Mandates	47
Appendices	52
A. Methodological Details	52
B. Survey Questionnaire	57

SUMMARY

A. BACKGROUND AND OBJECTIVES

In 2022, the Government of Canada issued a plan for reducing emissions: *2030 Emissions Reduction Plan: Canada's Next Steps for Clean Air and a Strong Economy*. In this plan, the Government reinforced its commitment to fight climate change, create jobs, and ensure that Canadians are global leaders in the transition to clean industries and technologies.

On-road transportation accounts for about 20 percent of Canada's total greenhouse gas emissions. Reducing transportation emissions is critical to achieving the Government's more ambitious climate change commitments and is consistent with the global shift toward zero emission vehicles (ZEVs). The Government's plans to address transportation decarbonization are outlined in its Action Plan for Clean On-Road Transportation.

Among other actions, in December 2023, federally regulated sales targets were published for all new light-duty cars and passenger trucks in the Electric Vehicle Availability Standard. Under the Standard, auto manufacturers and importers must meet annual zero-emission vehicle (ZEV) regulated sales targets, rising to 100% of all new light-duty vehicle sales for the 2035 model year. In addition, the Government will develop a medium- and heavy-duty vehicle (MHDV) regulation to require that all MHDV sales be ZEVs by 2040 for a subset of vehicle types, based on feasibility.

The Government is investing an additional \$3 billion to ensure Canada reaches these goals. To provide certainty about the path to getting there, the Government will pursue a combination of investments and regulations to help Canadians and industry in this transition.

For the Government to achieve its ZEV targets, consumer awareness, knowledge and acceptance of new ZEV technologies has been acknowledged by all stakeholders as critical.

Although various parties in Canada have conducted sporadic consumer surveys over the past decade that seek to measure these factors in the Canadian general public, these have not been designed as a baseline to be repeated consistently over time, so comparison between years of the fast-evolving consumer perspectives on ZEVs cannot be undertaken with scientific rigour.

NRCan commissioned EKOS Research Associates to undertake a third survey of Canadians examining their awareness, knowledge and confidence in ZEVs. The first NRCan baseline survey of Canadians on their awareness, knowledge and confidence in ZEVs was conducted in the summer of 2021 (July 16 to August 3, 2021), and the survey, including a few changes, was repeated in the fall of 2022 (September 9 to October 4, 2022). The current survey was conducted in the winter of 2024 (January 17 to February 7, 2024).

The survey was specifically designed to be repeated on an annual or bi-annual basis to provide key performance indicators on the success of efforts to increase consumer intention and action on the purchase of ZEV technologies. This year's results will provide an update to the 2021 and 2022 surveys for key performance indicators and key market data to measure and track impacts and progress resulting from government and partner investments to foster ZEV adoption.¹

B. METHODOLOGY

The research involved an online survey of 3,459 Canadians 18 years of age and older. The survey was conducted across Canada in both official languages. The field dates for the survey were January 17 to February 7, 2024.

Appendix A contains a detailed description of the methodology used in this study.

Appendix B contains the full survey questionnaire.

C. KEY FINDINGS

Survey results reveal that Canadians hold mixed views on ZEVs and continue to have a general lack of knowledge about these vehicles. As was found in previous surveys, Canadians believe that ZEVs are beneficial for the environment, but also feel they are expensive and have issues related to charging (e.g., too few charging stations, can't travel far enough on a full charge). Canadians also have limited experience with ZEVs, and little understanding about a range of important issues associated with these vehicles, such as safety, vehicle charging, performance, maintenance costs, and resale value, suggesting these are areas in need of increased ZEV awareness/education initiatives.

¹ As discussed later in this report, the timing of this year's survey, along with other factors, may have affected the 2024 results.

Highlight Results

Survey results suggest that although there is some interest in ZEVs among Canadians, increased education and awareness efforts will be required to overcome some of the concerns about ZEVs (e.g., charging, reliability, costs to run and maintain), and the general lack of knowledge about these vehicles among the Canadian public. As shown by some examples of the key comparative results in the table below, tracking reveals an increase in exposure and familiarity with ZEVs, but also a significant decrease in interest in the purchase/lease of a ZEV, and, importantly for those working to advance ZEV adoption, worsening attitudes towards many aspects of ZEVs.

Table 1: Highlight results

Statement/Question	2024 % Agree	2022 % Agree	2021 % Agree	Change from 2022 +/-
Have you ever driven or ridden in a zero-emission vehicle?	42%	39%	32%	+3%
Do you know an owner of a zero-emission vehicle?	62%	54%	46%	+8%
Have you considered purchasing or leasing a zero emission vehicle for your household?	36%	51%	51%	-15%
ZEVs can't travel far enough on a full charge	56%	49%	44%	+7%
ZEVs perform poorly in cold weather	59%	37%	28%	+22%
Interest in taking a ZEV for a test drive	48%	62%	67%	-14%
Too few charging stations where I drive	62%	55%	53%	+7%

These and other survey results can help the Government of Canada and all ZEV stakeholders focus the content and messaging in their awareness and education activities in the coming months and years. There are clearly a wide variety of opportunities to fill gaps in knowledge and understanding related to ZEVs, particularly where there are clear misperceptions, and where large numbers of respondents have indicated they are “unsure”.

Survey Context

A few contextual factors should be considered when interpreting the 2024 survey results, and comparing any significant changes in Canadians’ attitudes and awareness of ZEVs from previous surveys. These contextual factors include:

- **Seasonality:** Previous surveys were conducted in the summer (2021) and fall (2022); the 2024 survey was conducted in the winter – late January to early February. Winter driving experiences and concerns may be more top of mind for respondents when surveyed in the winter. In addition, recent media reports indicating that ZEVs lose driving range in the winter are typically less prevalent in other seasons.
- **Recent ZEV announcements:** The survey was conducted shortly after the announcement of Canada's Electric Vehicle Availability Standard (December 2023) – a federal regulation requiring that by 2035, 100% of new light duty vehicles for sale in Canada must be zero-emission vehicles. This announcement received a significant amount of media attention, much of it negative in tone, and likely heightened Canadians' awareness of (and potentially opposition to) ZEVs.
- **Interest rates:** Recent increases in inflation and interest rates, compared to rates during survey periods in 2021 and 2022, may have impacted this year's survey results, due to impacts on affordability. Statistics Canada data indicates that all new passenger car sales were down 8 per cent in 2023 compared to 2022.

All of these factors may explain at least some of the decrease in attitudes and consumer interest in the purchase/lease of ZEVs seen in this year's survey.

Summary of Key Results

Outlined below are key findings from this study, organized by topic area. The remainder of this report describes survey results in more detail.

Intention to Purchase/Lease a Vehicle

Respondents were first asked if they plan to purchase or lease any type of new or used vehicle in the next 10 years. Two-thirds of Canadians (66 per cent) say they do intend to purchase a vehicle within the next 10 years. These results have remained largely stable over the past few years.

When asked in what timeframe they plan to purchase a vehicle, most of these respondents indicated within the next 2-5 years (43 per cent), or within the next 2 years (30 per cent). Tracking reveals that while overall interest in getting a vehicle in the next 10 years is stable, there has been a decline among those who plan to purchase/lease a vehicle in the next 2 years (from 35 per cent in 2021 to 30 per cent in 2024), suggesting some Canadians may be delaying planned vehicle purchases.

Results also reveal that, consistent with Statistics Canada data indicating a decline in new passenger car sales over the past year, the proportion of Canadians indicating they intend to purchase a new car is down 5 percentage points since 2022.

Ownership and Intention to Lease/Purchase a Zero-Emission Vehicle

Those who indicated they had a vehicle in their household were asked if they currently lease or own a zero emission vehicle. Results reveal that, consistent with previous surveys, very few Canadians (seven per cent) say they own or lease a zero emission vehicle; the vast majority (93 per cent) do not.

Those who do not own or lease a zero emission vehicle were asked if they had considered purchasing or leasing a ZEV for their household. Results reveal a fairly significant decrease in the proportion of Canadians who are considering purchasing a ZEV. Indeed, fewer than four in ten (36 per cent) indicated that they had considered purchasing a ZEV – down from 51 per cent in 2022.

All respondents were asked how likely it is that they will purchase a ZEV as their next vehicle. One in three say it is very or somewhat likely (36 per cent), however most Canadians say it is very or somewhat unlikely (34 per cent), or they will not purchase a ZEV (22 per cent). Fifteen per cent are unsure.

Those who do not own or lease a ZEV were asked what information would be of greatest interest to them if they were considering purchasing or leasing a ZEV. Driving range was mentioned most often (55 per cent), followed by purchase price (46 per cent), and battery life expectancy (45 per cent).

Experience with Zero Emission Vehicles

Respondents were asked if they had ever driven or ridden in a ZEV. Results reveal that while most Canadians (56 per cent) have not, an increasing proportion (42 per cent – up 10 per cent since 2021) said they had.

Respondents were also asked how interested they would be in taking a zero emission vehicle for a test drive. About half say they would be very (26 per cent) or somewhat (22 per cent) interested. Twenty per cent said they were only a little interested in this idea, and 30 per cent

said they were not at all interested. Tracking reveals a significant decline in interest in taking a ZEV for a test drive since 2022 (down 14 percentage points).²

Those who indicated they were not at all interested in taking a ZEV for a test drive were asked why they felt this way. The most common reason cited was they had no intention of buying a ZEV (68 per cent), followed distantly by a lack of suitable ZEV models for their lifestyle (15 per cent).

Views on Zero Emission Vehicle Features

Respondents were also asked a number of attitudinal questions about ZEVs. Results reveal mixed views on zero emission vehicles, as well as a general lack of knowledge about these vehicles.

A clear majority of Canadians (75 per cent, up 5 percentage points since 2022) believe that zero emission vehicles are too expensive. Only 35 per cent of Canadians agree that gas/diesel vehicles are too expensive.

Canadians generally believe that ZEVs are better for the environment than other types of vehicles (although agreement is down since 2022). Just over half (54 per cent, down two percentage points since 2022) agree that zero emission vehicles contribute significantly to a reduction of greenhouse gas emissions and air pollutants compared to gas or diesel-powered vehicles, and just under half (48 per cent, down three points since 2022) agree that zero emission vehicles are less damaging to the environment than gas or diesel-powered vehicles. A decreasing proportion (30 per cent – down 7 points since 2022) agrees that the total carbon footprint of ZEVs is lower than comparable gas vehicles. These tracking results suggest that an increasing proportion of Canadians have a fundamental misperception of the environmental impacts of ZEVs.

Results also reveal concerns about charging ZEVs. More than six in ten Canadians (62 per cent – up from 55 per cent in 2022) agree that there are too few, if any, publicly available charging

² However, please note that the question wording was changed from the earlier surveys – previously respondents were asked “Imagine you were able to test drive a zero emission vehicle that suited your lifestyle needs, at a location that was convenient for you with an impartial expert (no brand affiliation) available at the test drive to answer your questions. How interested, if at all, would you be in taking a zero emission vehicle for a test drive?” This year respondents were only asked “How interested, if at all, would you be in taking a zero emission vehicle for a test drive?” This wording change may have at least partially affected survey results this year.

stations where they drive. In addition, over half express concerns that zero emission vehicles can't travel far enough on a full charge (56 per cent, up 7 points since 2022). Fewer than half agree that they can charge a zero emission vehicle at their home (48 per cent), and even fewer agree they can charge a ZEV at their workplace (20 per cent). In addition, an increasing number of Canadians worry that if too many people purchase zero emission vehicles it will put too much pressure on the electric grid (54 per cent, up 11 points since 2022, and 28 points since 2021). Almost half also agree that charging a zero emission vehicle at home will significantly increase their monthly electricity bill (48 per cent – up 7 points since 2022).

There has also been a substantial increase in the proportion of Canadians who feel that zero emission vehicles perform poorly in cold weather (59 per cent, up from 37 per cent in 2022, and from 28 per cent in 2021). This result may be affected by the timing of the 2024 survey. The previous surveys were conducted in the summer and fall; the 2024 survey was conducted in the winter, and there have been several recent media reports indicating that ZEVs lose driving range in the winter.

Survey results also reveal that Canadians are unsure about many of the issues examined. One in four (24 per cent) feel that the style/type of vehicle they prefer isn't available as a ZEV, but almost as many (22 per cent) are unsure. Fewer than one in five (18 per cent) feel there is an affordable zero emission vehicle available that meets their lifestyle needs, but again, many (23 per cent) are unsure. One in three (32 per cent) are unsure whether the repair and maintenance costs for a zero emission vehicle are lower than for a gas or diesel-powered vehicle, and over four in ten (42 per cent) are unsure whether zero emission vehicles have a poor resale value.

Canadians were also asked to what extent a range of factors would make them more likely to consider purchasing or leasing a zero emission vehicle. Proven winter weather performance, having access to a charging station at home, a 10-year battery warranty, and equal or greater driving range than a gas or diesel vehicle were seen as the most important factors in encouraging Canadians to consider purchasing/leasing ZEVs. Lower total costs to own and operate ZEVs, more charging stations along highways, and rebates/incentives for purchasing or leasing a ZEV were also seen as effective in encouraging Canadians to consider ZEVs.

Awareness and Support for Government Rebates/Mandates

Results suggest that awareness of government rebates for ZEVs is increasing. When asked whether they have seen, read or heard about the Government of Canada's vehicle purchase rebates to encourage Canadians to buy zero emission vehicles, a majority (55 per cent) indicate

they have heard of these rebates, and this is up from 45 per cent in 2022. Among those who indicated they are aware of these Government of Canada rebates, most (56 per cent) are unsure how to apply for them, although this is down three percentage points since 2022, and 8 points since 2021.

Results also reveal that a majority of respondents (58 per cent) support the Government of Canada providing incentives to encourage Canadians to buy zero emission vehicles, although support is down over the past few years.

Respondents were also asked if they had heard of Canada's Electric Vehicle Availability Standard – a federal regulation requiring that by 2035, 100% of new light duty vehicles for sale in Canada must be zero-emission vehicles. Three in four Canadians (74 per cent) say they have heard of this regulation, and one in four (24 per cent) say they have not.

Canadians were also asked whether they support or oppose a variety of policies regarding ZEVS. There is strong support for building a national network of charging stations for electric vehicles (69 per cent). However, only four in ten (42 per cent) agree with a sales mandate ensuring that by 2035 100% of new vehicles sold will be ZEVs, and fewer than one in three (30 per cent) agree when the mandate is communicated as “banning the sale of new gas and diesel-powered vehicles by 2035”.

D. CONTRACT VALUE

The contract value for the POR project is \$76,229.80 (including HST).

Supplier Name: EKOS Research Associates

PWGSC Contract Number: CW2339694

Contract Award Date: November 30, 2023

For more information on this report, please contact NRCAN at: nrcan.por-rop.nrcan@canada.ca

E. POLITICAL NEUTRALITY CERTIFICATION

I hereby certify as Senior Officer of EKOS Research Associates Inc. that the deliverables fully comply with the Government of Canada political neutrality requirements outlined in the Policy on Communications and Federal Identity and the Directive on the Management of Communications. Specifically, the deliverables do not include information on electoral voting intentions, political party preferences, standings with the electorate, or ratings of the performance of a political party or its leaders.

Signed by: 

Derek Jansen (Vice President)

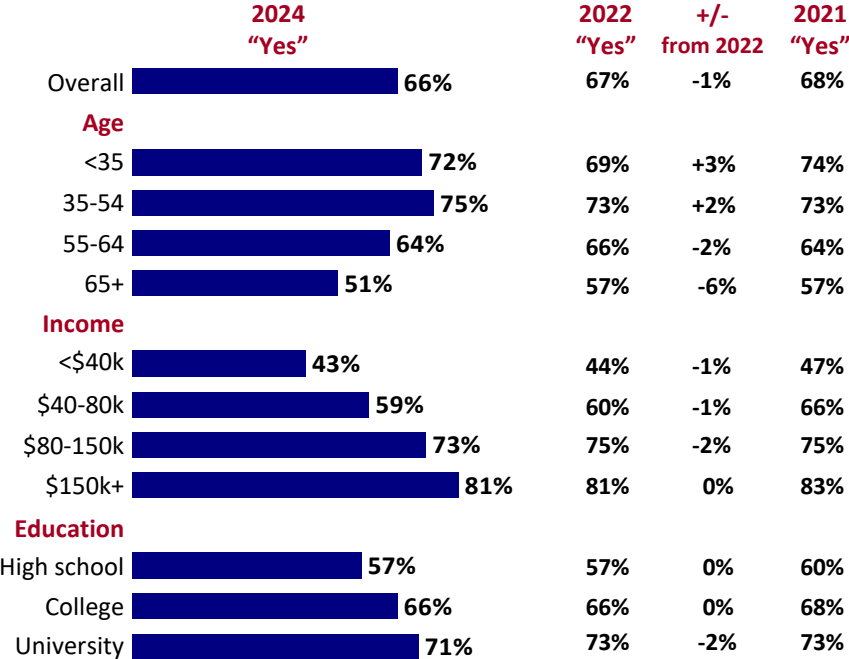
DETAILED FINDINGS

Outlined below are detailed findings from this study, organized by topic area.

A. INTENTION TO PURCHASE/LEASE A VEHICLE

Respondents were first asked if they plan to purchase or lease a new or used vehicle in the next 10 years. Results reveal that two-thirds of Canadians (66 per cent) say they do intend to purchase a vehicle within the next 10 years, 23 per cent do not intend to purchase a vehicle within this timeframe, and 11 per cent are unsure. These results are largely the same as those found in previous years.

Chart 1: Intention to purchase/lease a vehicle



QA. Do you plan to purchase or lease a new or used personal vehicle for yourself or others in the next 10 years?

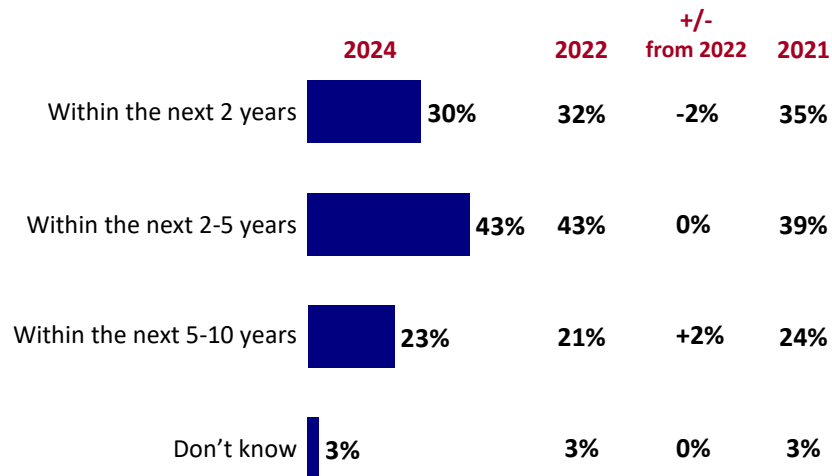
Base: Canadians; Jan. 17 - Feb. 7, 2024, n=3,459

- Residents of Atlantic Canada are more likely to say they plan to purchase or lease a new or used personal vehicle in the next 10 years (74 per cent, compared to 66 per cent nationally).
- Those 35-54 years of age are most likely to indicate they plan to purchase or lease a vehicle in the next 10 years (75 per cent), while those 65 years of age and older are least likely to indicate they plan to purchase or lease a new vehicle (51%, and this is down 6 percentage points since 2022).
- The likelihood of purchasing or leasing a vehicle rises progressively with both income (from 43 per cent among those earning less than \$40,000 in household income to 81 per cent among those earning \$150,000 or more) and education (from 57 per cent among those with a high school education to 71 per cent among university graduates).
- Men (74 per cent) are more likely than women (60 per cent) to say they plan to purchase or lease a vehicle.
- Those indicating they would only buy a ZEV if the price were about the same as an equivalent conventional one are more likely to say they plan to purchase/lease a new/used personal vehicle in the next 10 years (73 per cent).

Timeframe for Purchasing/Leasing a Vehicle

Those who indicated they planned to purchase or lease a vehicle in the next 10 years were asked a number of follow-up questions. When asked in what timeframe they plan to purchase a vehicle, most of these respondents indicated within the next 2-5 years (43 per cent), or within the next 2 years (30 per cent). Tracking reveals a decline among those who plan to purchase/lease a vehicle in the next 2 years (from 35 per cent in 2021 to 30 per cent in 2024).

Chart 2: Timeframe for purchasing/leasing a vehicle



Q1. [IF PLAN TO PURCHASE VEHICLE] In what timeframe do you plan to purchase or lease a new or used personal vehicle for yourself or others?

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=2,329

- Residents of Alberta (36 per cent) and those 55-64 years of age (35 per cent) are more likely to say they will purchase/lease a vehicle within the next 2 years.
- Residents of Ontario (46 per cent) more likely to say they will purchase/lease a vehicle within the next 2 to 5 years.

Size/Type of Vehicle to be Purchased

When asked what type of vehicle they are considering purchasing/leasing, results suggest that small sport utility vehicles continue to be selected most often (35 per cent), followed closely by midsize SUVs (32 per cent), and midsize vehicles (31 per cent). Tracking reveals that all three of these types of vehicles are somewhat more likely to be purchased than in 2022.

Chart 3: Size/type of vehicle to be purchased

	2024	2022	+/- from 2022	2021
Small sport utility (SUV)/crossover	35%	32%	+3%	34%
Midsize sport utility/crossover	32%	27%	+5%	30%
Midsize car	31%	29%	+2%	31%
Small car	22%	22%	0%	22%
Pick-up truck	17%	15%	+2%	16%
Large sport utility/crossover	9%	8%	+1%	9%
Large car	7%	6%	+1%	7%
Van/Minivan	3%	3%	0%	3%
Electric/hybrid vehicle	1%	1%	0%	1%
Other	1%	1%	0%	1%
Don't know	2%	2%	0%	2%

Q2. [IF PLAN TO PURCHASE VEHICLE] What size or type of personal vehicle will you be considering for lease or purchase? [SELECT ALL THAT APPLY]

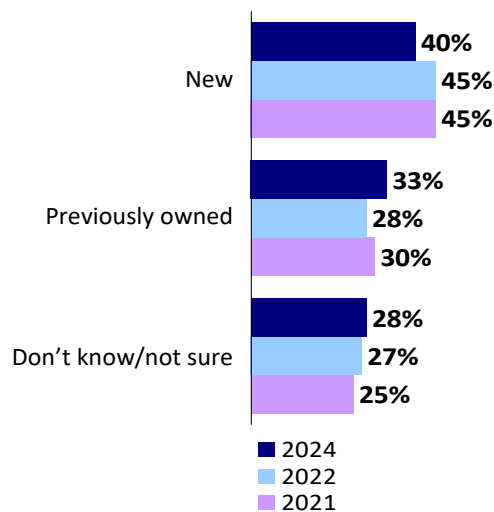
BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=2,329

- Ontarians are more likely than people in other provinces to consider purchasing/leasing a midsize car (34 per cent, compared to 31 per cent nationally).
- The likelihood of considering purchasing/leasing a midsize sport utility/crossover is also higher among respondents from Ontario (35 per cent, compared to 32 per cent nationally).
- The likelihood of considering purchasing/leasing a pick-up truck is higher among residents of Alberta (25 per cent, compared to 17 per cent nationally)
- Those under 35 years of age are more likely to consider purchasing/leasing a small (31 per cent) or midsize (45 per cent) vehicle.
- Those earning less than \$40,000 in household income (34 per cent) and those with university education (24 per cent) are more likely to consider purchasing/leasing a small car.

Intended Vehicle to be Purchased

Results further reveal that while a plurality of these respondents plan to purchase a new vehicle (40 per cent), a sizeable minority (33 per cent) intends to buy a used vehicle, and a fairly large proportion are unsure (28 per cent). Consistent with Statistics Canada data indicating a decline in new passenger car sales over the past year, the proportion indicating they intend to purchase a new car is down 5 percentage points since 2022. The likelihood of purchasing previously owned vehicles is up by the same proportion over this timeframe.

Chart 4: Intended vehicle to be purchased



Q3. [IF PLAN TO PURCHASE VEHICLE] Do you plan to purchase a new or previously owned vehicle?

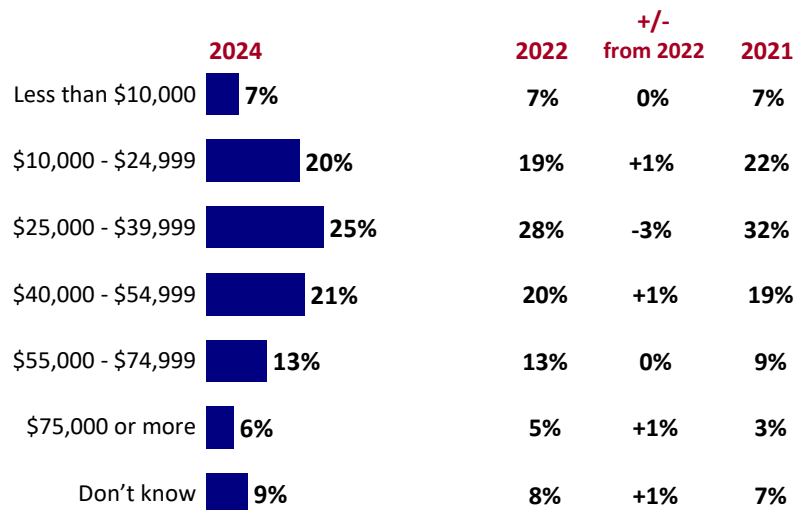
BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=2,329

- Those 55 years of age and older (49 per cent) and those with a household income of \$150,000 or greater (50 per cent) are more likely to say they will purchase a new vehicle.
- Residents of Quebec are more likely to say they will purchase a new vehicle (49 per cent).
- Conversely, residents of B.C. are most likely to purchase a previously owned vehicle (40 per cent, compared to 33 per cent nationally).
- Those willing to pay more for a zero emission vehicle than an equivalent conventional one are more likely to say they plan to purchase/lease a new vehicle (46 per cent).

Market Value of Vehicle to be Purchased

As was found in previous years, the plurality of Canadians who intend to purchase a car in the next 10 years believe the total cost of the vehicle will be in the \$25,000-\$39,999 range.

Chart 5: Market value of vehicle to be purchased



Q4. [IF PLAN TO PURCHASE VEHICLE] What will likely be the total market value of the vehicle you plan to purchase or lease?

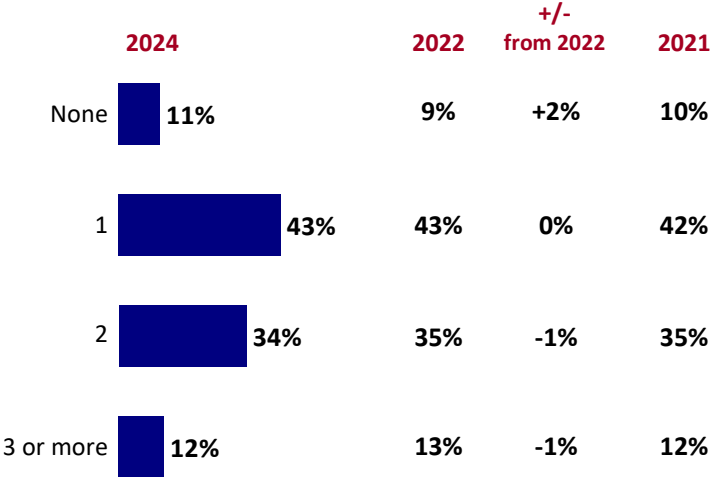
BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=2,329

- Those earning less than \$40,000 in household income are more likely to purchase/lease a vehicle with a market value from \$10,000 to \$24,999 (33 per cent).
- The likelihood of spending from \$25,000 to \$39,999 on a vehicle is higher among those from Atlantic Canada (32 per cent), those 65 years of age and older (30 per cent), and those earning from \$80,000 to just under \$150,000 in household income (28 per cent).
- Respondents that say they plan to purchase a previously owned vehicle are more likely to spend from \$10,000 to \$24,999 (42 per cent).

Number of Personal Vehicles Owned per Household

All Canadians were asked how many vehicles they currently have in their household. The plurality (43 per cent) indicates they have one car, while a sizeable proportion (34 per cent) say they have two vehicles. Eleven per cent of Canadians say they do not own a vehicle, and 12 per cent indicate they have three or more vehicles in their household. These results are virtually identical to those found in previous years.

Chart 6: Number of personal vehicles owned



Q5. How many personal vehicles do you currently have in your household?

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,459

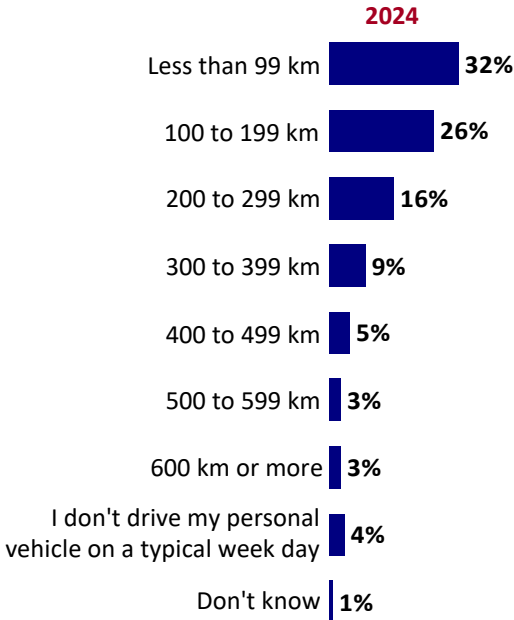
- Residents of Quebec are more likely to have one personal vehicle in their household (51 per cent, compared to 43 per cent nationally), and residents of Atlantic Canada, Alberta, and Saskatchewan/Manitoba are more likely to have two (38 per cent each, compared to 34 per cent nationally).
- Those with a household income from \$40,000 to just under \$80,000 are more likely to have one vehicle in their household (59 per cent, compared to 43 per cent overall).
- Respondents saying they plan to purchase a new vehicle are more likely to have two personal vehicles in their household (40 per cent).
- The number of vehicles in a household rises with income. For example, 12 per cent of those earning less than \$40,000 in household income say they have two vehicles, compared to 45 per cent among those earning \$150,000 or more.

B. VEHICLE USAGE

Kilometres driven in typical week

Those who own at least one vehicle were asked a number of questions about their vehicle usage. Most respondents who own a vehicle say they drive their vehicle fewer than 99 kilometres during a typical week (32 per cent), while a fairly large proportion (26 per cent) drive their vehicle between 100 and 199 kilometres per week.

Chart 7: Kilometres driven in typical week



Q6. How many kilometres do you drive your personal vehicle(s) in a typical week?

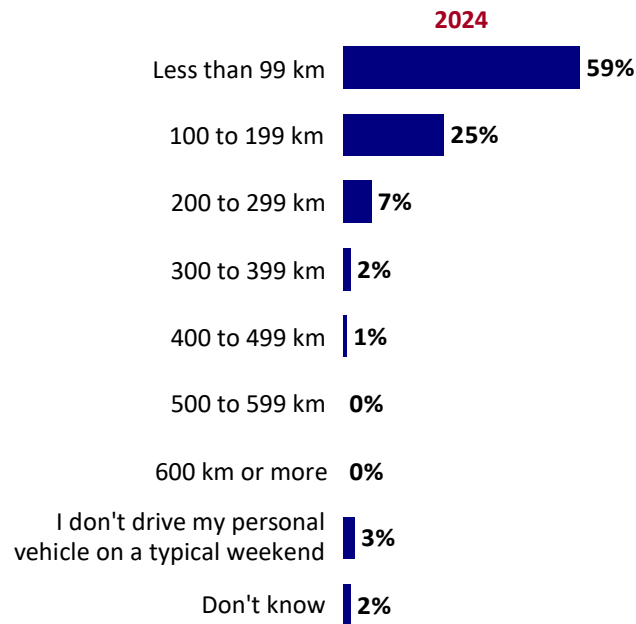
BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,124

- Those from the Territories (49 per cent) and BC (37 per cent), women (39 per cent), and those earning less than \$40,000 in household income (43 per cent) are more likely to say they drive less than 99 kilometres per week.

Kilometres driven on typical weekend

Results also reveal that most respondents who own a vehicle say they drive their vehicle fewer than 99 kilometres on a typical weekend (59 per cent), while one in four (25 per cent) say they drive their vehicle between 100 and 199 kilometres on weekends.

Chart 8: Kilometres driven on typical weekend



Q7. How many kilometres do you drive your personal vehicle(s) on a typical weekend?

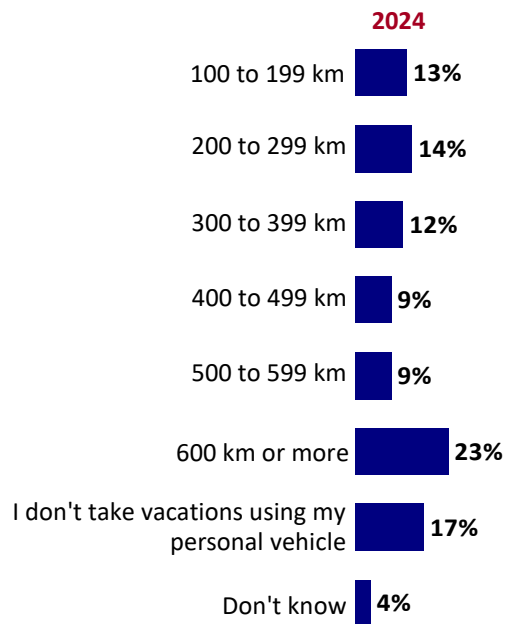
BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,124

- BC (65 per cent) and Quebec (63 per cent) residents, women (64 per cent), and those earning less than \$80,000 in household income (64 per cent) are more likely to say they drive less than 99 kilometres on a typical weekend.

Kilometres driven on vacation

Turning to vehicle usage on vacation, results reveal that many respondents who own a vehicle say they drive their vehicle 600 kilometres or more in a typical day on vacation (23 per cent), although a fairly large proportion (17 per cent) indicate they do not use their vehicle on vacation at all.³

Chart 9: Kilometres driven on vacation



Q8. Think about the last time you took a vacation using your personal vehicle - how many kilometres did you drive in a typical day?

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,124

- Residents of Saskatchewan/Manitoba (35 per cent), those 35-54 years of age (27 per cent), men (26 per cent), and those earning \$150,000 or more in household income (28 per cent) are more likely to say they drive 600 kilometres or more on vacation.

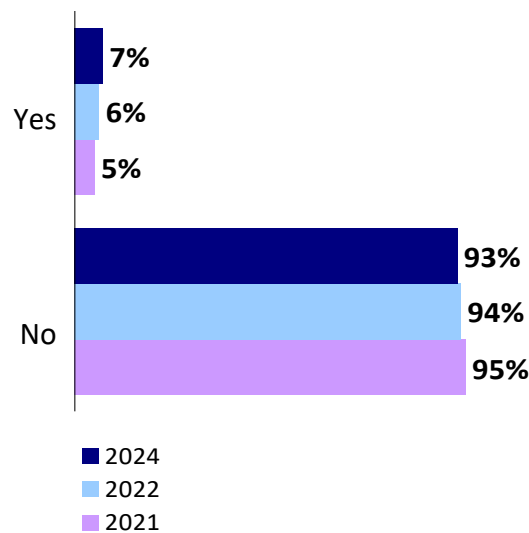
³ Given the relatively large proportion of Canadians who indicate they travelled 600 kilometres or more in a typical day of vacation, it is possible some respondents were thinking about their entire vacation (not a typical day) when answering the question.

C. OWNERSHIP AND INTENTION TO PURCHASE/LEASE AN ELECTRIC VEHICLE

Zero Emission Vehicles Owned/Leased

Those who indicated they had a vehicle in their household were also asked if they currently lease or own a zero emission vehicle. Results reveal that, consistent with previous surveys, very few Canadians (seven per cent) say they own or lease a zero emission vehicle that runs on electricity; the vast majority (93 per cent) do not.

Chart 10: Zero emission vehicles owned/leased



Q9. [IF OWN VEHICLE] Do you currently own or lease a zero emission vehicle} (a vehicle that runs on electricity)?

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,124

- Residents of Quebec (13 per cent), those with a household income of \$150,000 or more (13 per cent), those 35-54 years of age (10 per cent), and university graduates (9 per cent) are somewhat more likely to say they own a ZEV.

Intention to Purchase/Lease a Zero Emission Vehicle

Those who do not own or lease a zero emission vehicle were asked if they had considered purchasing or leasing an electric vehicle for their household. Results reveal a fairly significant decrease in the proportion of Canadians who are considering purchasing a ZEV, with intention declining broadly across income, age, and regional groups. Fewer than four in ten (36 per cent) indicated that they had considered purchasing a ZEV – down from 51 per cent in 2021 and 2022.⁴

Chart 11: Intention to purchase/lease a zero emission vehicle

	2024 "Yes"	2022 "Yes"	+/- from 2022	2021 "Yes"
National	36%	51%	-15%	51%
Region				
British Columbia	40%	59%	-19%	63%
Alberta	30%	43%	-13%	44%
Sask. & Man.	33%	45%	-12%	45%
Ontario	35%	51%	-16%	51%
Quebec	40%	55%	-15%	52%
Atlantic Canada	37%	47%	-10%	49%
Territories	43%	47%	-4%	--
Age				
<35	48%	61%	-13%	64%
35-54	39%	56%	-17%	55%
55-64	27%	48%	-21%	44%
65+	25%	40%	-15%	38%
Income				
<\$40k	25%	36%	-11%	41%
\$40-80k	31%	44%	-13%	48%
\$80-150k	39%	57%	-18%	54%
\$150k+	47%	68%	-21%	64%

Q16. [IF NOT OWN ELECTRIC VEHICLE] Have you considered purchasing or leasing a zero emission vehicle for your household?

BASE: Canadians, Jan. 17 - Feb. 7, 2024, n=3,244

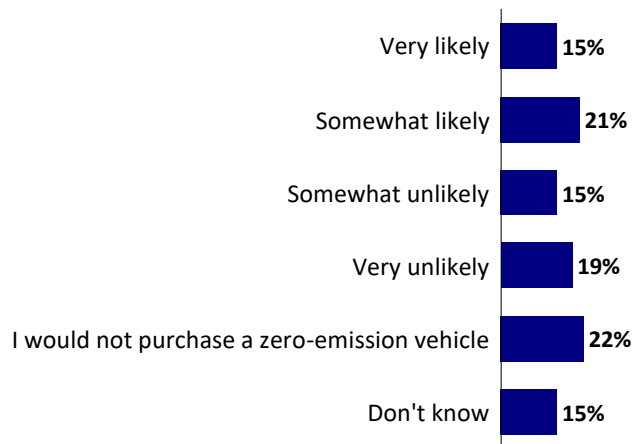
⁴ However, as noted earlier, survey results from this year may have been affected by a number of factors such as the timing of the survey, inflation, and the recent official announcement of the Electric Vehicle Availability Standard.

- Residents of Quebec and BC are more likely to consider purchasing/leasing a zero emission vehicle (40 per cent each, compared to 36 per cent nationally), but these regions still showed significant drops compared to the 2022 survey.
- The likelihood of considering the purchase/lease of a zero emission vehicle rises progressively with both income (from 25 per cent among those earning less than \$40,000 in household income, to 47 per cent of those earning \$150,000 or more), and education (from 25 per cent among those with a high school diploma, to 45 per cent of university graduates).
- Conversely, the incidence of those that have considered purchasing/leasing a zero emission vehicle declines with age (48 per cent of those under 35 years of age, compared to 25 per cent of those ages 65 and older).
- Respondents that are most likely to say they have considered purchasing/leasing a zero emission vehicle for their household include those willing to pay more for a ZEV than an equivalent conventional vehicle (72 per cent), and those saying they plan to purchase a new vehicle (49 per cent).
- The proportion who plan to purchase a new vehicle, and have considered purchasing/leasing a zero emission vehicle for their household, and are willing to pay more for a ZEV than an equivalent conventional vehicle represents 9 per cent of the Canadian population.

Likelihood of purchasing ZEV as next vehicle

All respondents were asked how likely it is that they will purchase a ZEV as their next vehicle. One in three say it is very or somewhat likely (36 per cent), however most Canadians say it is very or somewhat unlikely (34 per cent), or they will not purchase a ZEV (22 per cent). Fifteen per cent are unsure.

Chart 12: Likelihood of purchasing ZEV as next vehicle



Q17. How likely are you to purchase a zero-emission vehicle as your next vehicle?

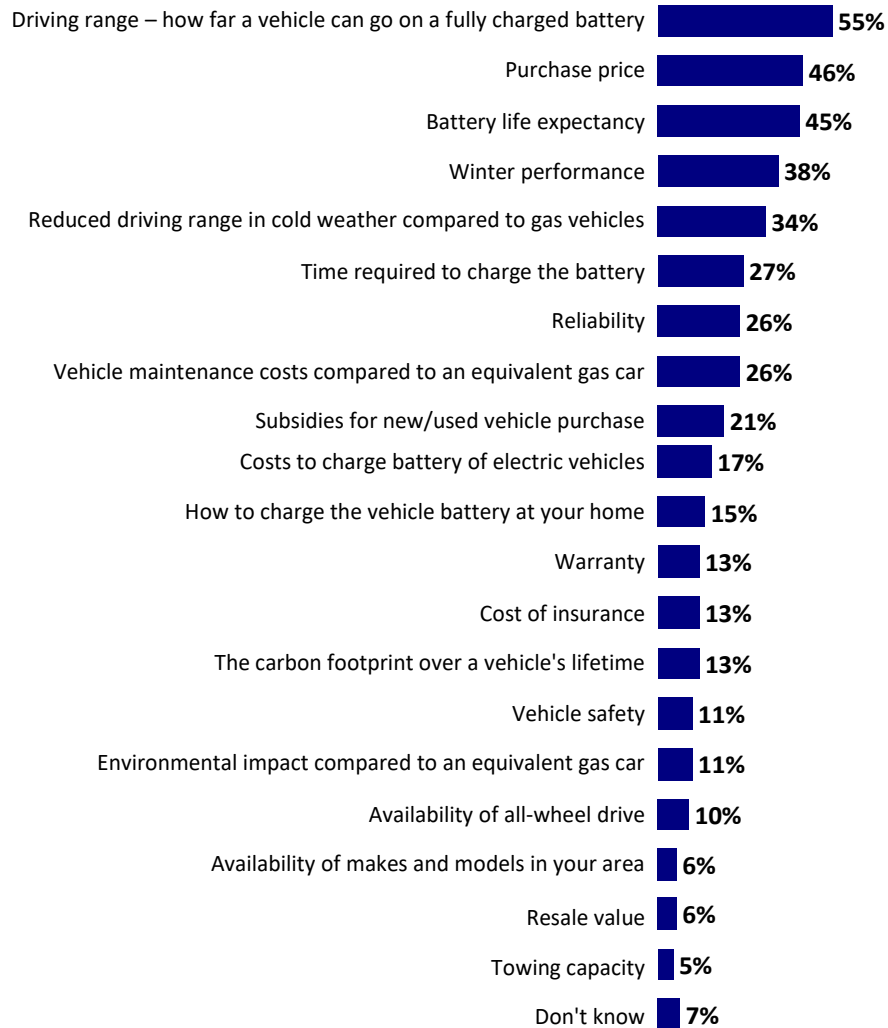
BASE: Canadians, Jan. 17 - Feb. 7, 2024, n=3,459

- Quebec residents (48 per cent), those under 35 years of age (47 per cent), those earning \$150,000 or more in household income (47 per cent), and those with university education (48 per cent) are most likely to indicate they are very or somewhat likely to purchase a ZEV as their next vehicle.

Information needed to consider purchase of ZEV

Those who do not own or lease a ZEV were asked what information would be of greatest interest to them if they were considering purchasing or leasing a ZEV. Driving range was mentioned most often (55 per cent), followed by purchase price (46 per cent), and battery life expectancy (45 per cent).

Chart 13: Information needed to consider purchase of ZEV



Q15. If you were considering purchasing or leasing a zero-emission vehicle, which information would interest you the most? [Choose up to 5]

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,244

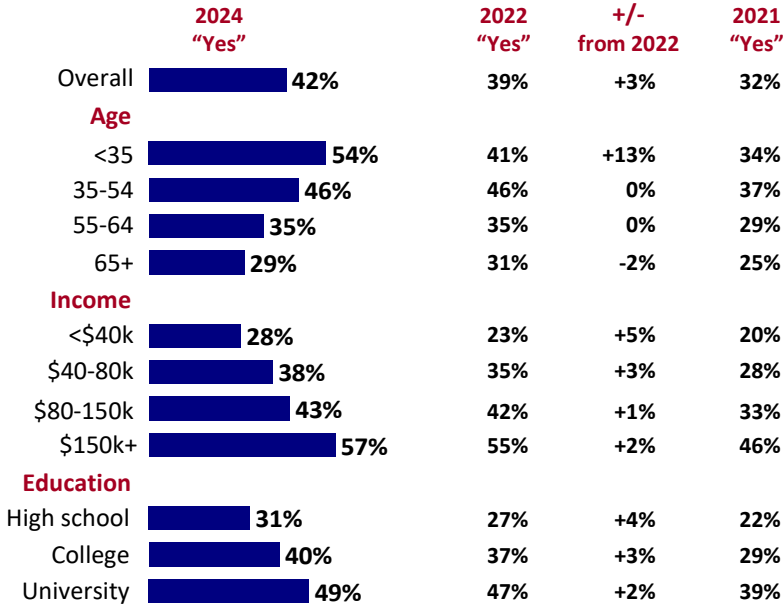
- Quebec residents (59 per cent), those under 55 years of age (58 per cent), those earning \$80,000 or more in household income (65 per cent), and those with university education (59 per cent) are most likely to indicate driving range.

D. EXPERIENCE WITH ZERO EMISSION VEHICLES

Experience with Zero Emission Vehicles

Respondents were informed that zero emissions vehicles are vehicles that can be driven without producing polluting exhaust, and include battery electric, plug-in hybrid electric, and hydrogen fuel cell electric vehicles. They were then asked if they had ever driven or ridden in a zero emission vehicle. Results reveal that while most Canadians (56 per cent) have not, an increasing proportion (42 per cent – up 10 per cent since 2021) said they had.

Chart 14: Experience with zero emission vehicles



Q11. Have you ever driven or ridden in a zero emission vehicle?

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,244

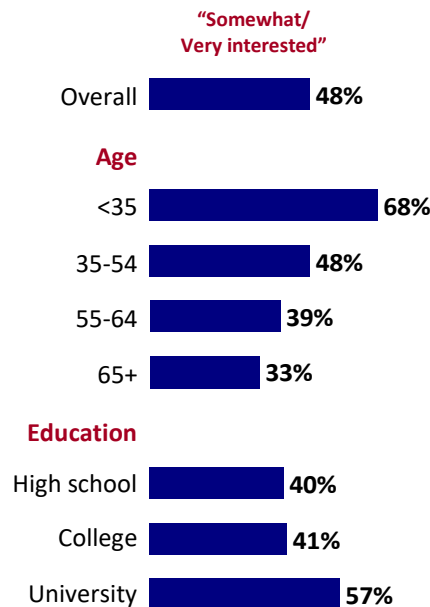
- Men (48 per cent), those under 35 years of age (54 per cent), and residents of BC (62 per cent), those earning \$150,000 or more in household income (57 per cent), and those with university education (49 per cent) are particularly likely to say they have driven/ridden in a zero emission vehicle.
- Conversely, those from Atlantic Canada (28 per cent), women (37 per cent), those with high school education (31 per cent), and those earning less than \$40,000 in household income (28 per cent) are less likely to indicate they have driven or ridden in a ZEV.

- The incidence of having driven/ridden in a zero emission vehicle rises with both income (from 28 per cent among those earning less than \$40,000 in household income to 57 per cent of those earning \$150,000 or more) and education (from 31 per cent among those with a high school diploma to 49 per cent of university graduates).

Interest in Test Driving a Zero Emission Vehicle

Respondents were also asked how interested they would be in taking a zero emission vehicle for a test drive. About half say they would be very (26 per cent) or somewhat (22 per cent) interested. Twenty per cent said they were only a little interested in this idea, and 30 per cent said they were not at all interested. Tracking reveals a significant decline in interest in taking a ZEV for a test drive since 2022 (down 14 percentage points).⁵

Chart 15: Interest in test driving a zero emission vehicle



Q12. How interested, if at all, would you be in taking a zero emission vehicle for a test drive?

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,244

- Those under 35 years of age are more interested in taking a zero emission vehicle for a test drive (68 per cent compared to 48 per cent on average).

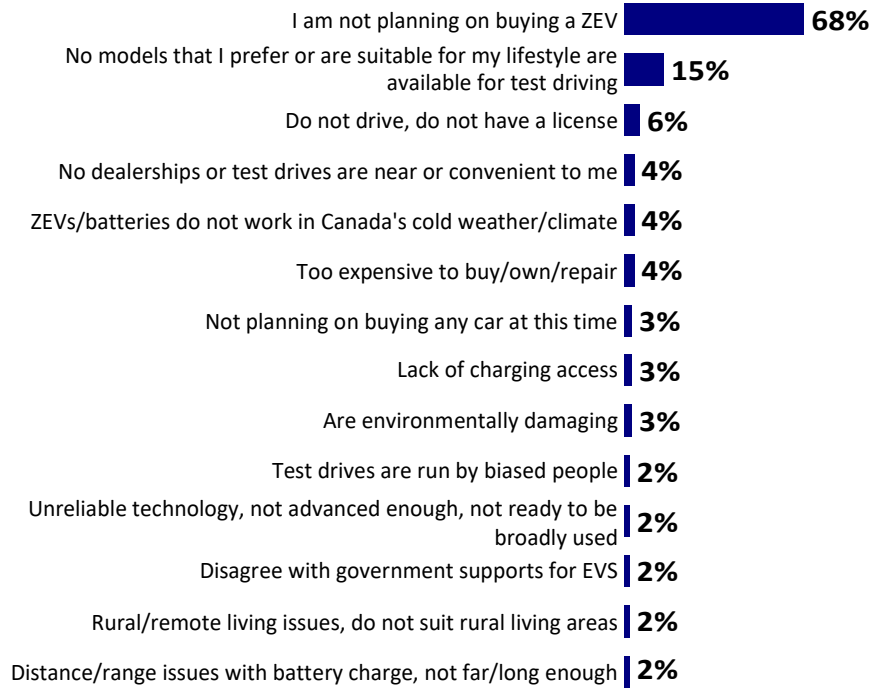
⁵ However, please note that the question wording was changed from the earlier surveys – previously respondents were asked “Imagine you were able to test drive a zero emission vehicle that suited your lifestyle needs, at a location that was convenient for you with an impartial expert (no brand affiliation) available at the test drive to answer your questions. How interested, if at all, would you be in taking a zero emission vehicle for a test drive?” This year respondents were only asked “How interested, if at all, would you be in taking a zero emission vehicle for a test drive?” This wording change may have at least partially affected survey results this year.

- Interest in taking a zero emission vehicle for a test drive rises progressively with both education (from 40 per cent among those with a high school diploma to 57 per cent of university graduates) and income (from 42 per cent of those earning less than \$40,000 in household income to 50 per cent of those earning \$150,000 or more).
- Respondents who say they are willing to pay more for a ZEV than an equivalent conventional vehicle are more likely to say they are interested in taking a zero emission vehicle for a test drive (83 per cent).

Reasons for lack of interest in taking ZEV test drive

Those who indicated they were not at all interested in taking a ZEV for a test drive were asked why they felt this way. The most common reason cited was they had no intention of buying a ZEV (68 per cent), followed distantly by a lack of suitable ZEV models for their lifestyle (15 per cent).

Chart 16: Reasons for lack of interest in taking ZEV test drive



Q13. Why would you not be interested in taking a zero-emission vehicle for a test drive?

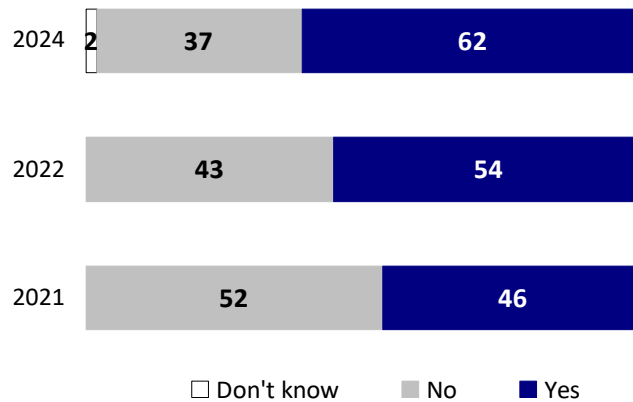
BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=994

- Atlantic Province residents (77 per cent) are particularly likely to indicate they are not planning on buying a ZEV.

Experience with Zero Emission Vehicle Owners

When asked whether they know an owner of a zero emission vehicle (such as a friend, family member, neighbour or colleague), results reveal an increase among those who indicate yes from previous years (62 per cent, up from 54 per cent in 2022, and 46 per cent in 2021).

Chart 17: Experience with ZEV owners



Q10. Do you know an owner of a zero emission vehicle? For example, a friend, family member, neighbour or colleague.

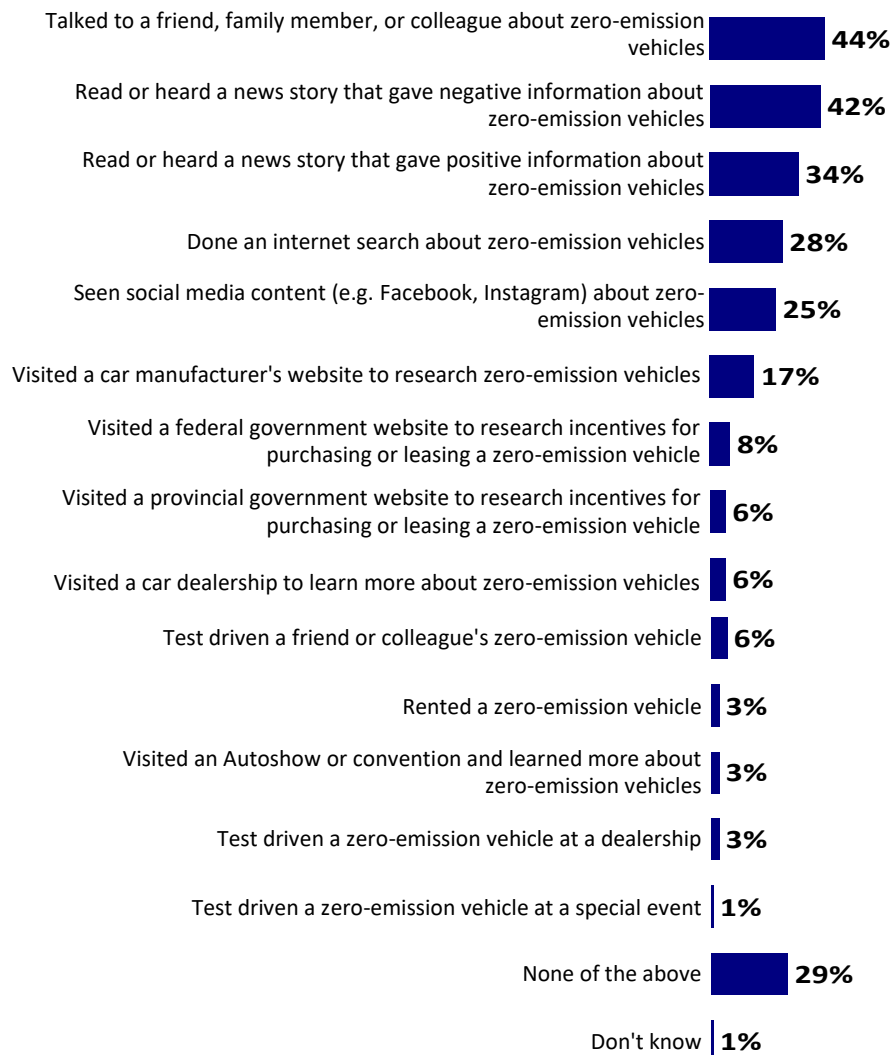
Base: Canadians; Jan. 17-Feb. 7, 2024, n=3,459

- Residents of Quebec (74 per cent) and BC (72 per cent), those ages 35 to 54 (68 per cent), those earning \$150,000 or more in household income (76 per cent) and university graduates (71 per cent) are more likely to say they know an owner of a zero emission vehicle.
- Men are more likely than women to know an owner of a ZEV (64 per cent versus 60 per cent).
- Among those who say they know an owner of a ZEV, those willing to pay more for a ZEV (77 per cent) and those saying they plan to purchase a new vehicle (69 per cent) are most likely to say yes to this question.

Experience/actions taken with ZEVs (i)

Those who do not own or lease a ZEV were asked what experiences/actions they have had with ZEVs. The most common responses involved talking to a friend/family member/colleague about ZEVs (44 per cent), or reading a negative (42 per cent) or positive (34 per cent) news story about these vehicles. Twenty-nine per cent report having taken none of the listed actions with ZEVs.

Chart 18: Experience/actions taken with ZEVs



Q18. In the past 12 months, what experiences have you had, or actions have you taken, related to zero-emission vehicles?

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,244

- BC residents (49 per cent), those under 35 years of age (57 per cent), men (47 per cent), those earning \$150,000 or more in household income (56 per cent), and those with university education (52 per cent) are most likely to indicate they talked with a friend/family member/colleague about ZEVs.
- Alberta and BC residents (52 per cent), men (47 per cent), and those earning \$150,000 or more in household income (46 per cent) are most likely to indicate they heard a negative story about ZEVs.
- BC residents (40 per cent), men (39 per cent), those earning \$150,000 or more in household income (38 per cent), and those with university education (39 per cent) are most likely to indicate they heard a positive story about ZEVs.

Awareness of Zero Emission Vehicles Makes and Models

Respondents were asked, unprompted, to name any zero emission vehicle makes and models they were aware of. As was found in previous years, Tesla is mentioned most often (55 per cent), followed distantly by the Nissan Leaf (17 per cent), the Ford F150 truck (14 per cent), and the Chevrolet Volt (13 per cent). One in five (18 per cent) could not provide a response to this question. (Chart is on following page).

Chart 19: Awareness of zero emission vehicle makes and models

	2024	2022	+/- from 2022	2021
Tesla (General mention)	55%	52%	+3%	51%
Nissan Leaf	17%	17%	0%	21%
Ford F150/ Truck	14%	8%	+6%	4%
Chevrolet Volt	13%	16%	-3%	16%
Chevrolet Bolt	12%	12%	0%	11%
Toyota Prius	12%	10%	+2%	14%
Hyundai Ioniq	11%	8%	+3%	3%
Toyota (General mention)	10%	7%	+3%	7%
Tesla 3	8%	6%	+2%	7%
Ford (General mention)	8%	7%	+1%	6%
Ford Mustang Mach-E SUV	7%	7%	0%	4%
Tesla X/Y	7%	3%	+4%	3%
Hyundai (General mention)	7%	5%	+2%	4%
Volvo (General mention)	6%	--	--	--
Tesla S	6%	4%	+2%	5%
Hyundai Kona	6%	6%	0%	5%
Volkswagen (General mention)	6%	4%	+2%	--
KIA (General mention)	6%	5%	+1%	3%
Honda (General mention)	5%	3%	+2%	3%
Chevrolet (General mention)	4%	5%	-1%	3%
Toyota Rav4	4%	--	--	--
BMW (General mention)	4%	3%	+1%	3%
DK/NR	18%	25%	-7%	27%

Q14. Please name any zero emission vehicle makes and models (company and specific car, SUV or truck name) of which you are aware. [OPEN ENDED]

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,454

- Those ages 35 to 64 (58 per cent), those earning \$150,000 or more in household income (58 per cent), and university graduates (58 per cent) are the most likely to name Tesla as a ZEV they are aware of.
- Those saying they plan to purchase a previously owned vehicle are more likely to name Tesla (60 per cent).
- Those ages 65 and up (32 per cent), women (29 per cent), those with a household income lower than \$40,000 (42 per cent), high school graduates (37 per cent), and residents of Atlantic Canada and Saskatchewan/Manitoba (32 per cent each) were particularly likely to not provide a response to this question.

E. VIEWS ON ZERO EMISSION VEHICLE FEATURES

Attitudes Towards Zero Emission Vehicles

Respondents were also asked a number of attitudinal questions about ZEVs. Results reveal mixed views on zero emission vehicles, as well as a general lack of knowledge about these vehicles.

Generally speaking, findings indicate that Canadians believe that ZEVs are beneficial for the environment, but also feel they are expensive and difficult to fuel/charge. Canadians also have limited experience with ZEVs, and little understanding about a range of important issues associated with these vehicles, such as safety, vehicle charging, performance, maintenance costs, and resale value, suggesting these are areas in need of increased ZEV awareness/education initiatives.

A clear majority of Canadians (75 per cent, up 5 percentage points since 2022) believe that zero emission vehicles are too expensive, while only 35 per cent of Canadians agree that gas/diesel vehicles are too expensive.

Canadians generally believe that ZEVs are better for the environment than other types of vehicles (although agreement is down since 2022). Just over half (54 per cent, down two percentage points since 2022) agree that zero emission vehicles contribute significantly to a reduction of greenhouse gas emissions and air pollutants compared to gas or diesel-powered vehicles, and just under half (48 per cent, down three points since 2022) agree that zero emission vehicles are less damaging to the environment than gas or diesel-powered vehicles. A decreasing proportion (30 per cent – down 7 points since 2022) agrees that the total carbon footprint of ZEVs is lower than comparable gas vehicles, but 24 per cent are unsure.

Results also reveal concerns about charging ZEVs. More than six in ten Canadians (62 per cent – up from 55 per cent in 2022) agree that there are too few, if any, publicly available charging stations where they drive. In addition, over half express concerns that zero emission vehicles can't travel far enough on a full charge (56 per cent, up 7 points since 2022), Fewer than half agree that they can charge a zero emission vehicle at their home (48 per cent), and even fewer agree they can charge a ZEV at their workplace (20 per cent). In addition, an increasing number of Canadians worry that if too many people purchase zero emission vehicles it will put too much pressure on the electric grid (54 per cent, up 11 points since 2022, and 28 points since

2021). Almost half also agree that charging a zero emission vehicle at home will significantly increase their monthly electricity bill (48 per cent – up 7 points since 2022).

There has also been a substantial increase in the proportion who feel that zero emissions vehicles perform poorly in cold weather (59 per cent, up from 37 per cent in 2022, and from 28 per cent in 2021).

Canadians also believe that the wait time for a ZEV is longer than the wait time for gas or diesel powered vehicles (42 per cent vs. 23 per cent, respectively)

Four in ten (39 per cent - up 5 per cent since 2022) believe a zero emission vehicle would save them money in the long run⁶, and one in three (33 per cent) say they would only buy a zero emission vehicle as a second vehicle for their household, while keeping a gas or diesel-powered vehicle as well (largely unchanged from last year).

One in four (24 per cent) feels that the style/type of vehicle they prefer isn't available as a zero emission vehicle (largely unchanged from last year), but many are unsure. Fewer than one in five (18 per cent – largely unchanged from last year) feel there is an affordable zero emission vehicle available that meets their lifestyle needs, but again, many are unsure.

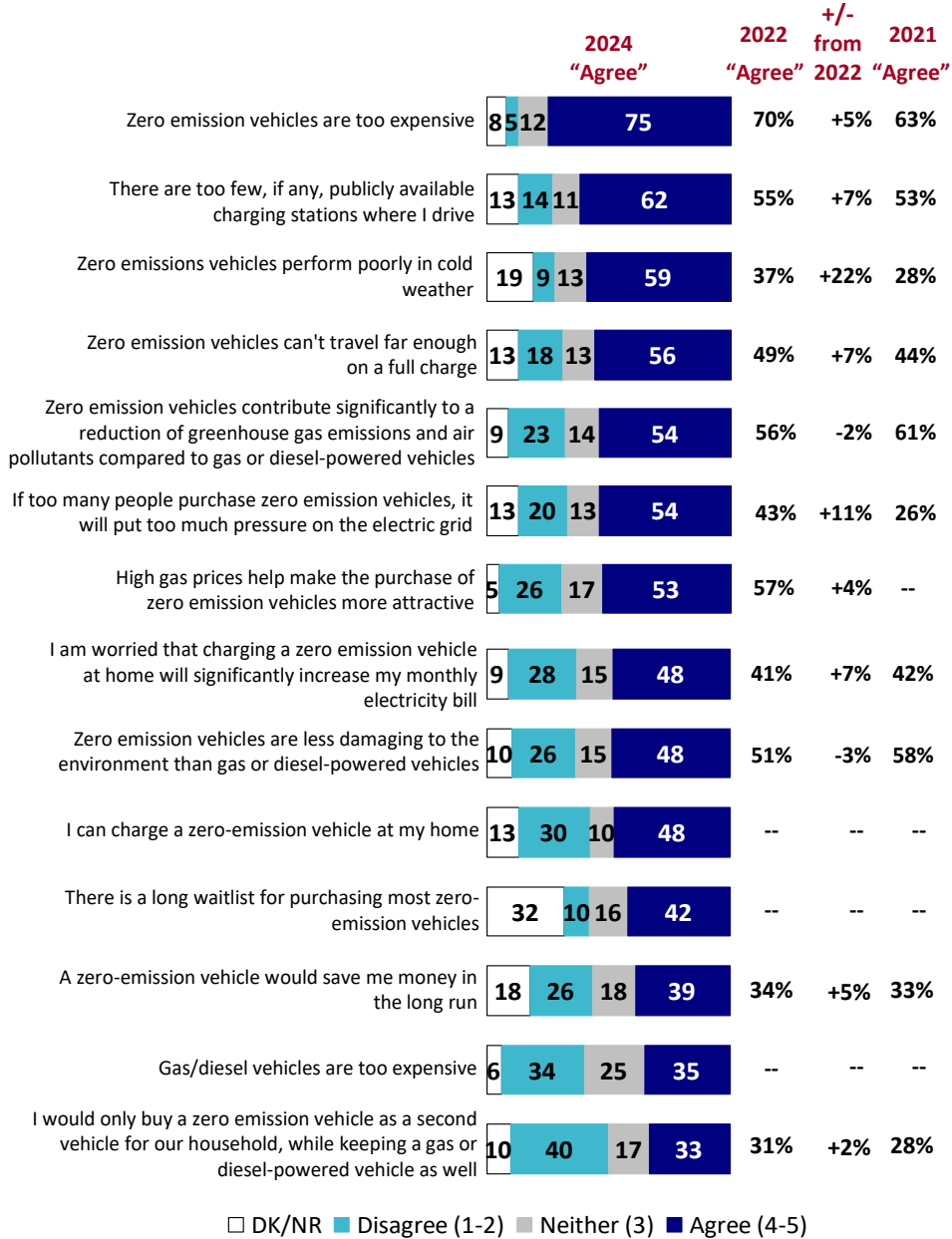
One in three are unsure whether the repair and maintenance costs for a zero emission vehicle are lower than for a gas or diesel-powered vehicle (32 per cent), and over four in ten are unsure whether zero emission vehicles have a poor resale value (42 per cent).

Moreover, over four in ten Canadians could not provide a response when asked whether zero-emission vehicles have the same towing ability as conventional vehicles (41 per cent), or whether hydrogen fuel cell electric vehicles are more dangerous than other kinds of vehicles (46 per cent).

Finally, one in four (27 per cent) agree that it is difficult to find credible sources of information about zero emission vehicles, and one in five (20 per cent – up 7 points since 2022) feel that gas or diesel-powered vehicles are safer than ZEVs, but again, many express uncertainty about these issues. (Charts are on following pages).

⁶ Please note that the question wording for ZEVs saving money in the long run was slightly changed in 2024 (the words “in the long run” were added to the question).

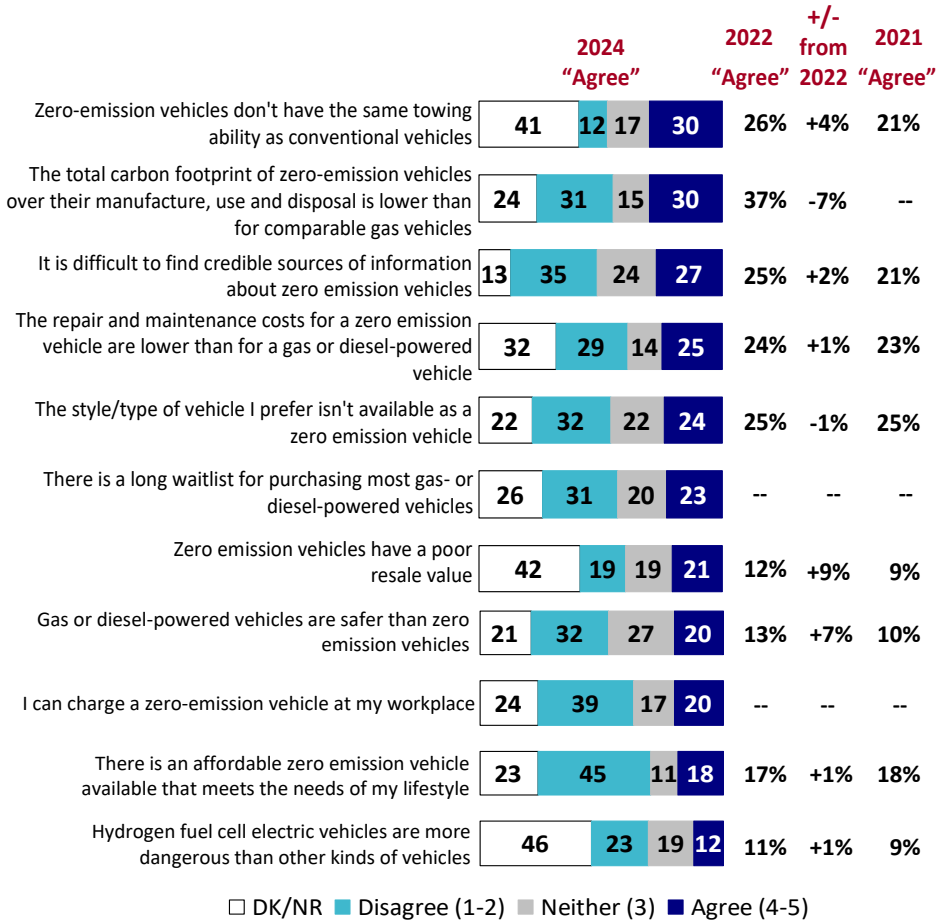
Chart 20: Attitudes towards zero emission vehicles (i)



Q19. Please indicate [on a 5 point scale] whether you agree or disagree with each of the following statements about zero emission vehicles.

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,459

Chart 21: Attitudes towards zero emission vehicles (ii)



Q19. Please indicate [on a 5 point scale] whether you agree or disagree with each of the following statements about zero emission vehicles.

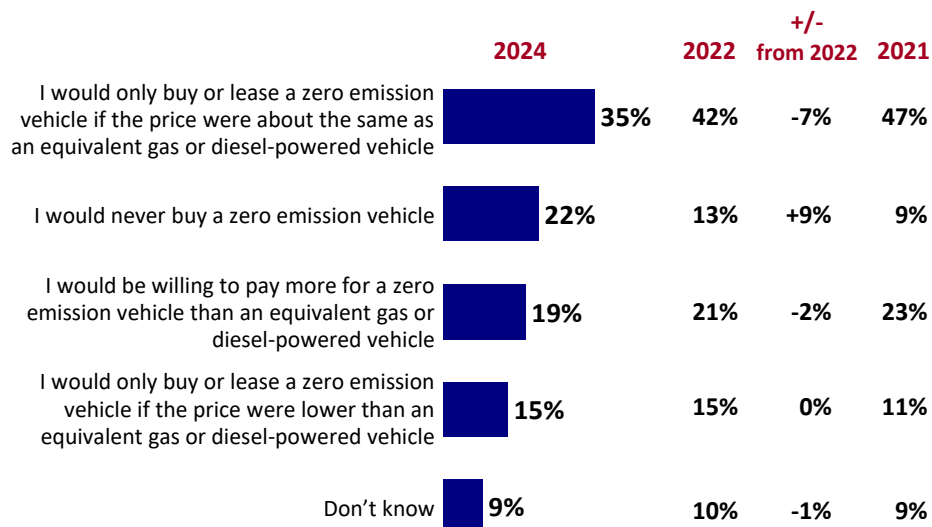
BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,459

- Men are more likely than women to agree that zero emission vehicles are too expensive (80 per cent, compared to 71 per cent).
- Quebeckers (63 per cent), those under 35 years of age (57 per cent), and university graduates (61 per cent) are more likely to agree that zero emission vehicles contribute significantly to a reduction of greenhouse gas emissions and air pollutants compared to gas or diesel-powered vehicles.
- Alberta residents (70 per cent), those 55-64 years of age (63 per cent), men (65 per cent), those earning \$80,000 or more in household income (63 per cent), and those with college education (62 per cent) are most likely to agree that ZEVs perform poorly in cold weather.
- Agreement with the idea that zero emission vehicles are less damaging to the environment than gas or diesel-powered vehicles is higher among residents of Quebec (55 per cent), those under 35 years of age (55 per cent), and university graduates (56 per cent).
- Residents of Atlantic Canada (76 per cent), and those 55-64 years of age (68 per cent) are more likely to agree that there are too few, if any, publicly available charging stations where they drive.
- Men (55 per cent), Quebeckers (58 per cent), those earning \$150,000 or more in household income (60 per cent), and university graduates (50 per cent) are more likely to agree that they can charge a zero emission vehicle at their home.
- Agreement with the idea that zero emission vehicles can't travel far enough on a full charge is higher among residents of Alberta (67 per cent), those 55-64 years of age (62 per cent), and those earning \$150,000 or more in household income (62 per cent).
- Those willing to pay more for a zero emission vehicle than an equivalent conventional one are more likely to say that zero emission vehicles contribute significantly to a reduction of greenhouse gas emissions and air pollutants compared to gas or diesel-powered vehicles include (85 per cent).
- Generally speaking, those 65 years of age and older, those with lower levels of education, and lower income earners tend to be more likely to indicate they are unsure how to respond to these questions.

Attitudes about Price Parity to ICEVs in Purchase of Zero Emission Vehicles

Respondents were also asked which of a range of statements about the purchase price of a ZEV is closest to their own point of view. Most indicated that they would only buy a zero emission vehicle if the price were about the same as an equivalent conventional vehicle (35 per cent, down 7 percentage points since 2022). About one in five (19 per cent – down 2 percentage points since 2022) would be willing to pay more for a zero emission vehicle than an equivalent conventional vehicle. Fifteen per cent indicated they would only buy or lease a zero emission vehicle if the price were lower than an equivalent conventional vehicle, and 22 per cent (up 9 points since 2022) said they would never buy a zero emission vehicle.

Chart 22: Importance of price in purchase of zero emission vehicles



Q20. Which of the following statements is closest to your own point of view?

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,459

- Those under 35 years of age (43 per cent), those earning from \$80,000 to less than \$150,000 in household income (38 per cent), and those with university education (38 per cent) are particularly likely to indicate they would only buy a zero emission vehicle if the price were about the same as an equivalent conventional vehicle.
- Residents of Quebec (26 per cent), those under 35 years of age (23 per cent), those with a household income of \$150,000 or more (29 per cent), and university graduates (27 per cent) are most likely to say they would be willing to pay more for a zero emission vehicle than an equivalent conventional vehicle.

Factors Encouraging Purchasing/Leasing a Zero Emission Vehicle

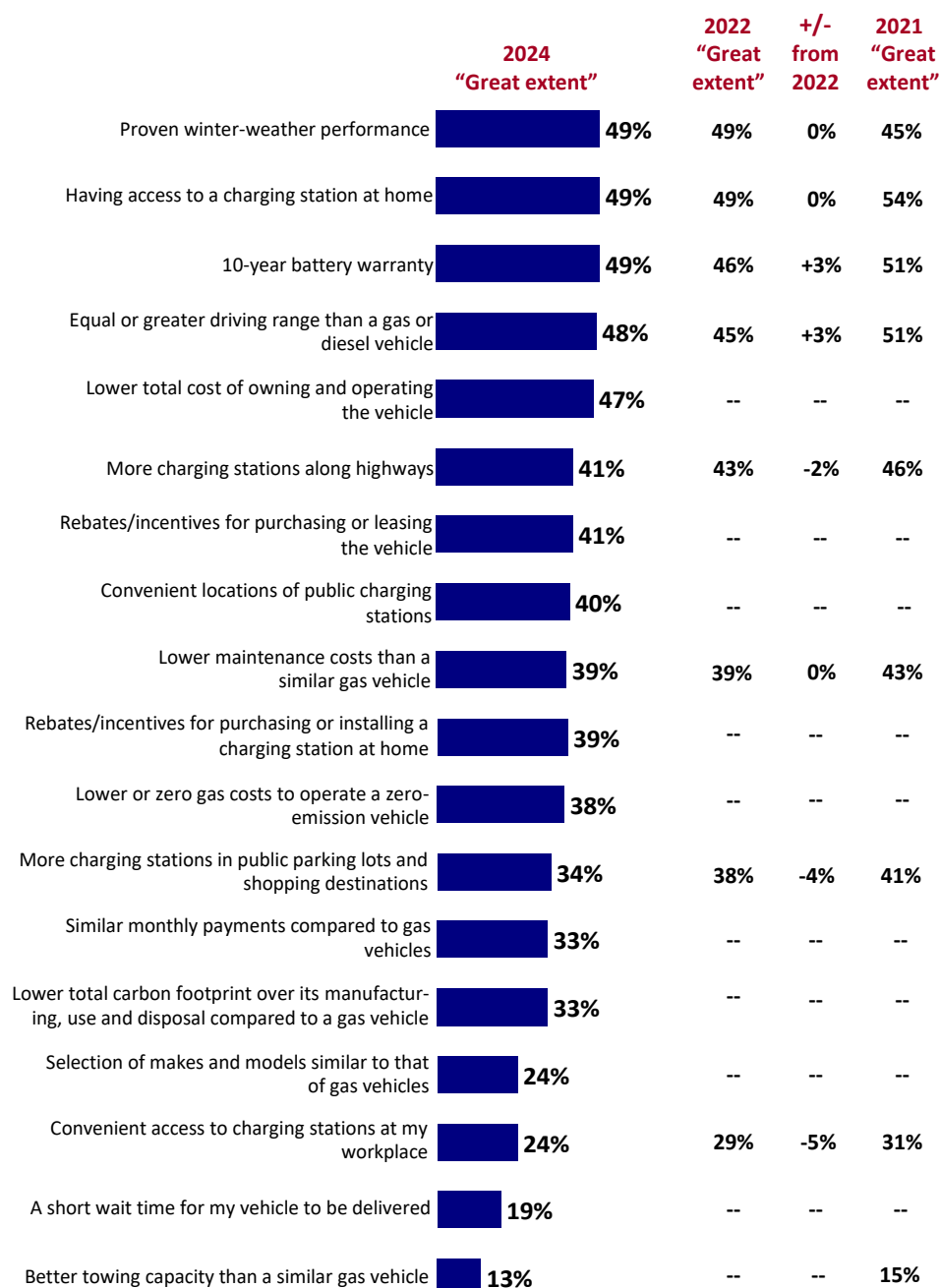
Canadians were also asked to what extent a range of factors would make them more likely to consider purchasing or leasing a zero emission vehicle.

Proven winter weather performance, having access to a charging station at home, a 10-year battery warranty, and equal or greater driving range than a gas or diesel vehicle were seen as the most important factors in encouraging Canadians to consider purchasing/leasing ZEVs.

Lower total costs to own and operate ZEVs, more charging stations along highways, and rebates/incentives for purchasing or leasing a ZEV were also seen as effective in encouraging Canadians to consider ZEVs.

Relatively few felt that a short wait time for the vehicle, or better towing capacity would encourage consideration of ZEVs. (Chart is on following page).

Chart 23: Factors encouraging purchasing/leasing a zero emission vehicle



Q21. To what extent would each of the following factors make you more likely to consider purchasing or leasing a zero emission vehicle?

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,459

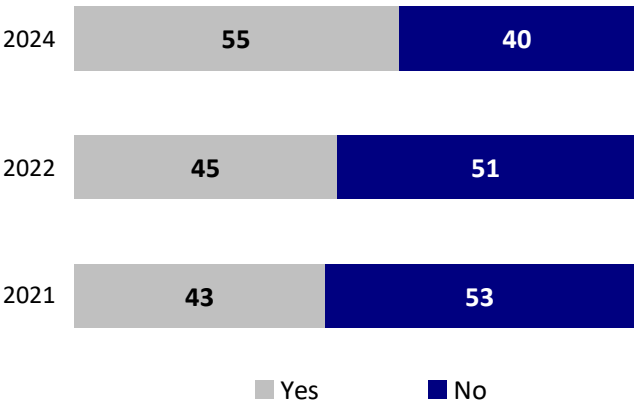
- Residents of Alberta and Quebec (54 per cent each), those under 35 years of age (52 per cent), men (52 per cent), those with a household income of \$150,000 or more (51 per cent) and university graduates (51 per cent) are more likely to consider purchasing/leasing a ZEV if the vehicle has proven winter weather performance.
- Respondents most likely to consider the purchase of a ZEV if the vehicle has proven winter weather performance include those willing to pay the same for a zero emission vehicle as an equivalent conventional one (63 per cent), and those saying they plan to purchase a new vehicle (50 per cent).
- Residents of Quebec (53 per cent), those under 35 years of age (53 per cent), those earning \$80,000 or more in household income (54 per cent) and university graduates (56 per cent) are more likely to say they would consider purchasing/leasing a ZEV if they have access to a charging station at home.
- Residents of Quebec (55 per cent), those under 35 years of age (53 per cent), men (51 per cent), those earning \$150,000 or more in household income (52 per cent) and university graduates (52 per cent) are more likely to say they would consider purchasing/leasing a ZEV if it came with a 10 year battery warranty.

F. AWARENESS AND SUPPORT FOR GOVERNMENT REBATES/MANDATES

Awareness and Understanding of Government Rebates for Zero Emission Vehicles

Results suggest that awareness of government rebates for ZEVs is increasing. When asked whether they have seen, read or heard about the Government of Canada's vehicle purchase rebates to encourage Canadians to buy zero emission vehicles, a majority (55 per cent) indicate they have heard of these rebates, and this is up from 45 per cent in 2022, and 43 per cent in 2021.

Chart 24: Awareness of government rebates for zero emission vehicles



Q22. Have you seen, read or heard about the Government of Canada's vehicle purchase rebates to encourage Canadians to buy zero emission vehicles?

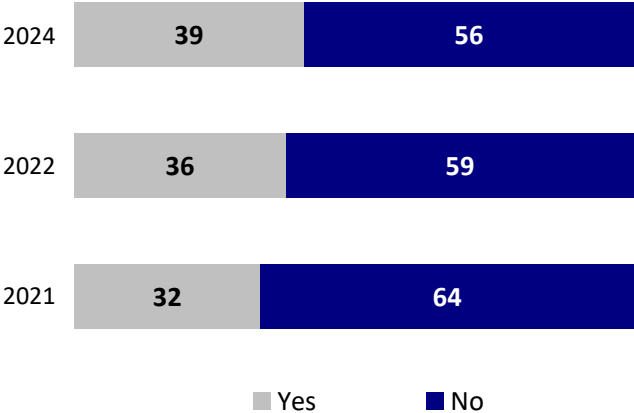
Note: Results do not include DK/NR.

BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=2,809

- Residents of Quebec are more likely to have seen, read or heard about the Government of Canada's vehicle purchase rebates (72 per cent, compared to 55 per cent nationally).
- Men (60 per cent), those under 54 years of age (58 per cent), those willing to pay more for a zero emission vehicle than an equivalent conventional one (70 per cent), and those saying they plan to purchase a new vehicle (62 per cent) are also more likely to express awareness of these rebates.
- Awareness of Government of Canada rebates rise progressively with both income (from 48 per cent among those earning less than \$40,000 in household income to 61 per cent among those earning \$150,000 or more) and education (from 47 per cent among those with a high school diploma to 59 per cent among university graduates).

Among those who indicated they are aware of these Government of Canada rebates, most (56 per cent) are unsure how to apply for them, although this is down three per cent since last year, and 8 per cent since 2021.

Chart 25: Understanding of government rebates for zero emission vehicles



Q23. [IF YES] Do you know how you can apply for these Government of Canada vehicle purchase rebates?

Note: Results do not include DK/NR.

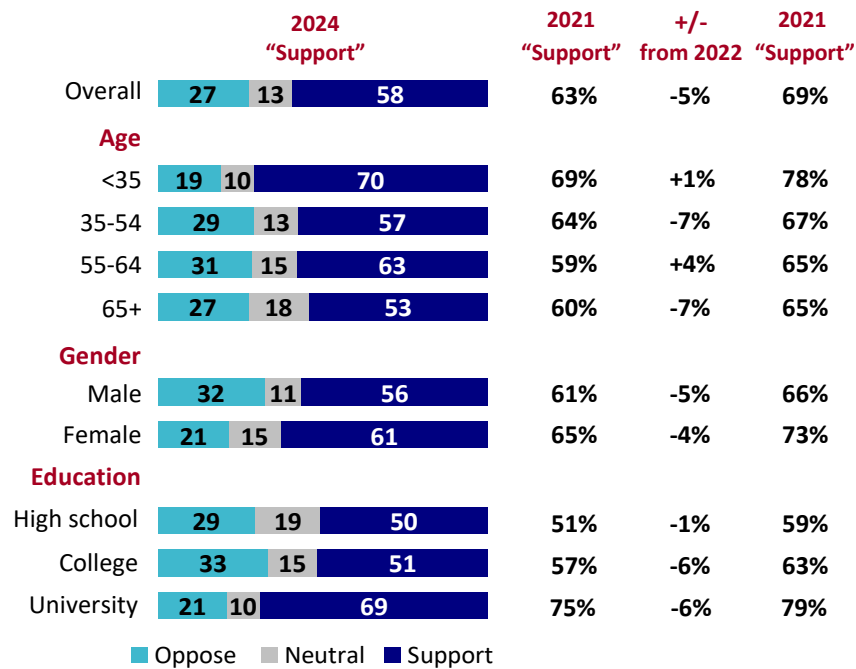
BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=1,533

- Those under 35 years of age (62 per cent), and those earning less than \$80,000 in household income (63 per cent) are more likely to indicate they do not know how to apply for these rebates.

Support for Government Incentives for the Purchase of Zero Emission Vehicles

Results also reveal that a majority of respondents (58 per cent) support the Government of Canada providing incentives to encourage Canadians to buy zero emission vehicles, although support is down over the past few years.

Chart 26: Support for government incentives for the purchase of zero emission vehicles



Q24. Do you support or oppose the Government of Canada providing incentives to encourage Canadians to buy zero emission vehicles?

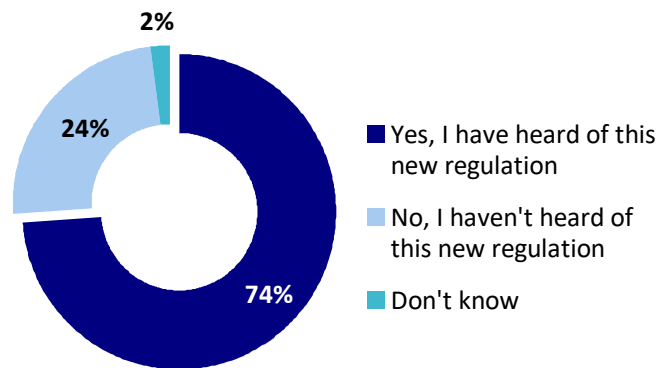
BASE: Canadians; Jan. 17 - Feb. 7, 2024, n=3,459

- Support for Government of Canada incentives to encourage the purchase of zero emission vehicles rises progressively with education (50 per cent of those with a high school diploma, compared to 69 per cent of university graduates).
- Residents of Quebec (73 per cent), those under 35 years of age (70 per cent), women (61 per cent), and those willing to pay more for a zero emission vehicle than an equivalent conventional one (91 per cent) are also more likely to support these incentives.

Awareness of Canada's Electric Vehicle Availability Standard

Respondents were also asked if they had heard of Canada's Electric Vehicle Availability Standard – a federal regulation requiring that by 2035, 100% of new light duty vehicles for sale in Canada must be zero-emission vehicles. Three in four Canadians (74 per cent) say they have heard of this regulation, and one in four (24 per cent) say they have not.

Chart 27: Awareness of Canada's Electric Vehicle Availability Standard



Q25. Have you heard of Canada's Electric Vehicle Availability Standard – a federal regulation requiring that by 2035, 100% of new light duty vehicles for sale in Canada, including cars, SUVs and pick up trucks, must be zero-emission vehicles (ZEVs). The targets begin for the 2026 model year, with a requirement that at least 20 percent of new light-duty vehicles offered for sale in that year be ZEVs. The requirements increase annually to 60 percent by 2030 and 100 percent for 2035. ZEVs include battery-electric, plug-in hybrid electric and hydrogen fuel cell vehicles.

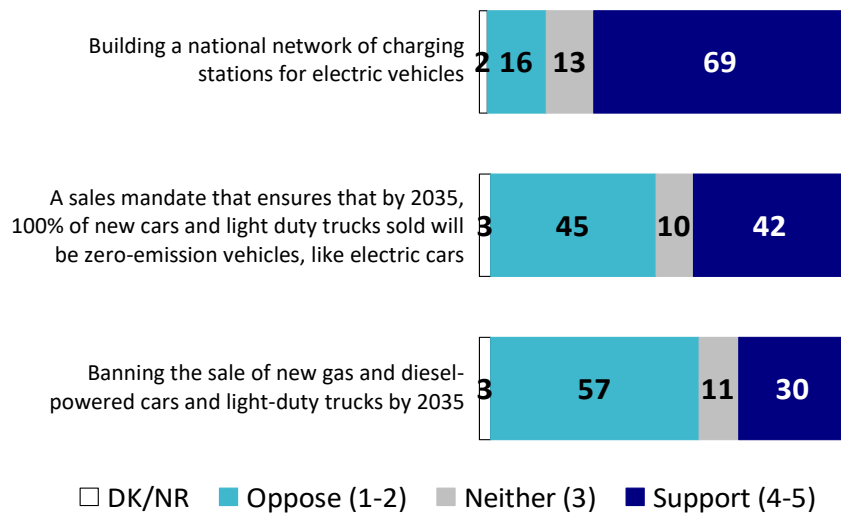
Base: Canadians; Jan. 17-Feb. 7, 2024, n=3,459

- Alberta residents (80 per cent), those 55-64 years of age (80 per cent), men (82 per cent), those earning \$150,000 or more in household income (84 per cent), those willing to pay more for a zero emission vehicle than an equivalent conventional one (80 per cent), and those saying they plan to purchase a new vehicle (82 per cent) are more likely to say they have heard of this regulation.

Support for ZEV policies

Canadians were also asked whether they support or oppose a variety of policies regarding ZEVs. There is strong support for building a national network of charging stations for electric vehicles (69 per cent). However, only four in ten (42 per cent) agree with a sales mandate ensuring that by 2035 100% of new vehicles sold will be ZEVs, and fewer than one in three (30 per cent) agree when it is communicated as banning the sale of new gas and diesel-powered vehicles by 2035.

Chart 28: Support for ZEV policies



Q26. How much do you support or oppose the following policies?

Base: Canadians; Jan. 17-Feb. 7, 2024, n=3,459

- Residents of Quebec, those under 35 years of age, women, those earning less than \$40,000 in household income, university graduates, and those willing to pay more for a zero emission vehicle than an equivalent conventional one are more likely to say they support all these policies.

APPENDICES

A. METHODOLOGICAL DETAILS

The research involved an online survey of 3,459 Canadians. The survey was conducted across Canada in both official languages. The field dates for the survey were January 17-February 7, 2024.

We used our probability-based online panel, *Probit*, in undertaking this survey. *Probit* is an online research panel that has been designed by EKOS to provide statistically representative data. Our panel offers complete coverage of the Canadian population (Internet, phone, cell phone), random recruitment (participants are recruited randomly; they do not opt themselves into our panel), and equal probability sampling. All respondents to our panel are recruited by telephone using random digit dialling, and their demographic information is confirmed by live interviewers.

The distribution of the recruitment process for our panel mirrors the actual population in Canada (as defined by Statistics Canada). As such, our panel can be considered representative of the general public (survey results from our online panel support confidence intervals and margin of error estimates). The overall panel size is roughly 100,000 Canadian households. Random stratified samples are drawn from the panel database for individual research assignments.

All survey results were weighted by region, age and gender according to Statistics Canada data, to ensure results are representative of the Canadian public. The margin of error for a survey of $n=3,459$ is ± 1.7 percentage points, 19 times out of 20.

Sample design, weighting and respondent profile

The sampling method was designed to complete interviews with at least 3,400 Canadians ages 18 and over. Quotas were set by age, gender, and region. The survey obtained the following distribution:

Variable	% of population	Target (quota)	% of sample	Actual Unweighted	Actual Weighted*
Jurisdiction					
Newfoundland and Labrador	1%	135	4%	143	53
Nova Scotia	3%	140	4%	149	96
Prince Edward Island	<1%	75	2%	66	15
New Brunswick	2%	135	4%	137	77
Quebec	23%	750	22%	752	777
Ontario	39%	800	23%	804	1,314
Manitoba	4%	180	5%	181	121
Saskatchewan	3%	180	5%	186	107
Alberta	11%	475	14%	480	387
British Columbia	14%	500	15%	506	485
Territories	<1%	30	1%	40	13
Age					
18-34	27%	930	22%	743	924
35-54	32%	1,158	36%	1,215	1,103
55+	41%	1,311	43%	1,448	1,379
Gender					
Male	49%	1,652	48%	1,618	1,647
Female	51%	1,747	52%	1,766	1,737

The following table presents the weighted distribution of survey participants by specific variables.

Variable	Total sample %	% of population
Education ^α		
High school or less	18	39
Apprentice/college/some university	36	32
University graduate/post-graduate	46	29
Total annual household income⁺		
Under \$40,000	14	19
\$40,000-<\$80,000	24	28
\$80,000-<\$100,000	15	12
\$100,000-<\$150,000	22	20
\$150,000 or more	16	20
Survey language /official languages		
English	83	78
French	17	22

^α Actual Census categories differ from those used in this survey; categories have been adjusted to correspond. Statistics Canada figures for education are for Canadians aged 25 to 64 years. For employment age 15+.

⁺ Percentaged on those providing a response

Questionnaire design

NRCan provided EKOS with a draft questionnaire for review and comment. In consultation with NRCan, EKOS revised and finalized the questionnaire.

EKOS data analysts programmed the final questionnaire and performed thorough testing to ensure accuracy in set-up and data collection. This validation ensured that the data entry process conformed to the surveys' basic logic. The data collection system handles sampling invitations, quotas and questionnaire completion (skip patterns, branching, and valid ranges). The client was also given the opportunity to test the survey links.

Prior to finalizing the survey for field, a pre-test (soft launch) was conducted in English and French. The pre-test assessed the questionnaires in terms of question wording and sequencing, respondent sensitivity to specific questions and to the survey overall, and to determine the survey length; standard Government of Canada pre- testing questions were also asked.

The final survey questionnaire is included in Appendix B.

Fieldwork

The survey was conducted by EKOS using a secure, fully featured web-based survey environment. The average interview length was 17.6 minutes.

All respondents were offered the opportunity to complete the surveys in their official language of choice. All research work was conducted in accordance with the Standards for the Conduct of Government of Canada Public Opinion Research – Online Surveys and recognized industry standards, as well as applicable federal legislation (*The Privacy Act, Personal Information Protection and Electronic Documents Act, and Access to Information Act*).

Following data collection, the data from this survey were statistically weighted to ensure the sample is representative of the Canadian population according to the most recently available Census information.

Completion results

The completion results are presented in the following table.

Contact disposition	
Disposition	N
Total invitations (c)	19,769
Total completes (d)	3,459
Qualified break-offs (e)	527
Disqualified (f)	0
Not responded (g)	15, 783
Quota filled (h)	0
Contact rate = (d+e+f+h)/c	20%
Participation rate = (d+f+h)/c	17%

Non-response bias analysis

The table below presents a profile of the final sample, compared to the actual population of Canada (2021 Census information). As is the case with most surveys, the final sample underrepresents those with high school or less education, which is a typical pattern for public opinion surveys in Canada (e.g., those with more education are more likely to respond to surveys).

Non-response bias analysis		
Sample type	Sample*	Canada (2021 Census)
Gender (18+)		
Male	48%	49%
Female	52%	51%
Age		
18-34	22%	27%
35-54	36%	32%
55+	43%	41%
Education level ^α		
High school diploma or less	18%	39%
Trades/college/post sec no degree	36%	32%
University degree	46%	29%

* Data are unweighted and percentaged on those giving a response to each demographic question

^α Actual Census categories differ from those used in this survey and have been recalculated to correspond. Statistics Canada figures for education are for Canadians aged 25 to 64 years.

B. SURVEY QUESTIONNAIRE

WINTRO

Thanks for agreeing to participate in this survey. This survey is being conducted by EKOS on behalf of the Government of Canada and covers a range of topics with a particular focus on vehicle ownership and use. It should take you about 15 minutes to complete.

Si vous préférez répondre au sondage en français, veuillez cliquer sur français.

Your participation is optional and your responses will be kept entirely confidential and anonymous. It is being directed by EKOS Research, and is being administered according to the requirements of the *Privacy Act*. To view our privacy policy, click here.

If you require any technical assistance, please contact online@ekos.com.

QA

These first few questions will help us to understand more about you and any recent vehicle purchases you have made or intend to make in the near future.

Do you plan to purchase or lease a new or used personal vehicle for yourself or others in the next 10 years?

Yes	1
No	2
Don't know	9

Q1

If... QA = 1

In what timeframe do you plan to purchase or lease a new or used personal vehicle for yourself or others:

Within the next 2 years	1
Within the next 2-5 years	2
Within the next 5-10 years	3
Don't know	9

Q2 [1,10]

If... QA = 1

What size or type of personal vehicle will you be considering for lease or purchase?
Check all that apply.

Small car	1
Midsize car	2
Large car	3
Small sport utility (SUV)/crossover	4
Midsize sport utility/crossover	5
Large sport utility/crossover	6

Pick-up truck	7	
Other (name) :	77	
Don't know	99	X

Q3

If... QA = 1

Do you plan to purchase a new or previously owned vehicle?

New	1
Previously owned	2
Don't know/not sure	9

Q4

If... QA = 1

What will likely be the total purchase price of the vehicle you plan to purchase or lease?

Less than \$10,000	1
\$10,000-\$24,999	2
\$25,000-\$39,999	3
\$40,000-\$54,999	4
\$55,000-\$74,999	5
\$75,000 or more	6
Don't know/not sure	9

Q5

How many personal vehicles do you currently have in your household?

None	98
1	1
2	2
3 or more	3
Don't know	99

Q6

If... Q5 = 1-3

Now we have a few questions about your average driving habits and needs.

How many kilometres do you drive your personal vehicle(s) in a typical week?

Less than 99 km	1
100 to 199 km	2
200 to 299 km	3
300 to 399 km	4
400 to 499 km	5
500 to 599 km	6
600 km or more	7

I don't drive my personal vehicle on a typical week day	8
Don't know	99

Q7

If... Q5 = 1-3

How many kilometres do you drive your personal vehicle(s) on a typical weekend?	
Less than 99 km	1
100 to 199 km	2
200 to 299 km	3
300 to 399 km	4
400 to 499 km	5
500 to 599 km	6
600 km or more	7
I don't drive my personal vehicle on a typical weekend	8
Don't know	99

Q8

If... Q5 = 1-3

Think about the last time you took a vacation using your personal vehicle - how many kilometers did you drive in a typical day?	
100 to 199 km	1
200 to 299 km	2
300 to 399 km	3
400 to 499 km	4
500 to 599 km	5
600 km or more	6
I don't take vacations using my personal vehicle	7
Don't know	99

PQ9

Now, we have a few questions about zero-emissions vehicles.

A zero-emission vehicle (ZEV), often commonly referred to as an electric vehicle, or "EV", is a vehicle that can be driven without producing polluting exhaust.

There are three types of ZEVs:

- battery-electric
- plug-in hybrid electric
- hydrogen fuel cell electric

Q9

If... Q5 = 1-3

Do you currently own or lease a zero-emission vehicle (a vehicle that runs on electricity)?

Yes	1
No	2
Don't know	9

Q10

Do you know an owner of a zero-emission vehicle? For example, a friend, family member, neighbour or colleague.

Yes	1
No	2
Don't know	9

Q11

If... Q9 not = 1

Have you ever driven or ridden in a zero-emission vehicle?

Yes	1
No	2
Don't know	9

Q12

If... Q9 not = 1

How interested, if at all, would you be in taking a zero-emission vehicle for a test drive?

Very interested	1
Somewhat interested	2
Only a little interested	3
Not at all interested	4
Don't know	9

Q13 [1,8]

If... Q9 not = 1 and Q12 = 4

Why would you not be interested in taking a zero-emission vehicle for a test drive?

Select all that apply

No models that I prefer or are suitable for my lifestyle are available for test driving	1
No dealerships or test drives are near or convenient to me	2
Test drives are run by biased people	3
Test drives are run by unknowledgeable people	4
I am not planning on buying a ZEV	5
Other (please specify) :	77 B

Prefer not to answer

99 BX

PQ14

Please name any zero-emission vehicle makes and models (company and specific car, SUV or truck name) of which you are aware.

Q14A

Vehicle 1

Please specify 77

Don't know 99 SX

Q14B

Vehicle 2

Please specify 77

Don't know 99 SX

Q14C

Vehicle 3

Please specify 77

Don't know 99 SX

Q14D

Vehicle 4

Please specify 77

Don't know 99 SX

Q14E

Vehicle 5

Please specify 77

Don't know 99 SX

Q15 [1,5]

If... Q9 not = 1

If you were considering purchasing or leasing a zero-emission vehicle, which information would interest you the most?

Choose up to 5 :

How to charge a ZEV 1

Availability of makes and models in your area 2

Vehicle safety 3

Vehicle maintenance costs compared to an equivalent gas car 4

Purchase price 5

Costs to charge battery of electric vehicles 6

Environmental impact compared to an equivalent gas car 7

Different levels, or speeds, of vehicle charging equipment	8
How to charge the vehicle battery at your home	9
How to charge the vehicle battery at your workplace	10
Driving range – how far a vehicle can go on a fully charged battery	11
Time required to charge the battery	12
Resale value	13
Subsidies for new/used vehicle purchase	14
Reliability	15
Battery life expectancy	16
Warranty	17
Cost of insurance	18
Towing capacity	19
Availability of all-wheel drive	20
Winter performance	21
Reduced driving range in cold weather compared to gas vehicles	22
The carbon footprint over a vehicle's lifetime (i.e., from manufacture, use and disposal)	23
Don't know	99 BX

Q16

If... Q9 not = 1

Have you considered purchasing or leasing a zero-emission vehicle (a vehicle that runs on electricity) for your household?

Yes	1
No	2
Don't know	9

Q17

How likely are you to purchase a zero-emission vehicle as your next vehicle?

Very likely	1
Somewhat likely	2
Somewhat unlikely	3
Very unlikely	4
I would not purchase a zero-emission vehicle	5
Don't know	9

Q18 [1,14]

If... Q9 not = 1

In the past 12 months, what experiences have you had, or actions have you taken, related to zero-emission vehicles?

Select all that apply

Visited a car dealership to learn more about zero-emission vehicles	1
Test driven a zero-emission vehicle at a dealership	2
Test driven a zero-emission vehicle at a special event	3
Test driven a friend or colleague's zero-emission vehicle	4
Rented a zero-emission vehicle	5
Visited an Autoshow or convention and learned more about zero-emission vehicles	6
Visited a car manufacturer's website to research zero-emission vehicles	7
Visited a federal government website to research incentives for purchasing or leasing a zero-emission vehicle	8
Visited a provincial government website to research incentives for purchasing or leasing a zero-emission vehicle	9
Talked to a friend, family member, or colleague about zero-emission vehicles	10
Done an internet search (e.g. Google search) about zero-emission vehicles	11
Seen social media content (e.g. Facebook, Instagram) about zero-emission vehicles	12
Read or heard a news story that gave negative information about zero-emission vehicles	13
Read or heard a news story that gave positive information about zero-emission vehicles	14
None of the above	15 BX
Don't know	99 BX

PQ19

Please indicate whether you agree or disagree with each of the following statements about zero-emission vehicles.

Q19A

High gas prices help make the purchase of zero-emission vehicles more attractive

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19B

There is a long waitlist for purchasing most zero-emission vehicles	
Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19C

There is a long waitlist for purchasing most gas- or diesel-powered vehicles	
Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19D

There are too few, if any, publicly available charging stations where I drive	
Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19E

It is difficult to find credible sources of information about zero-emission vehicles	
Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19F

I would only buy a zero-emission vehicle as a second vehicle for our household, while keeping a gas or diesel-powered vehicle as well	
Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4

Strongly disagree	5
I Don't know	9 S

Q19G

Zero-emission vehicles are too expensive

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19H

Gas/diesel vehicles are too expensive

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19I

Zero-emission vehicles are less damaging to the environment than gas or diesel-powered vehicles

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19J

Zero-emission vehicles can't travel far enough on a full charge

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19K

The repair and maintenance costs for a zero-emission vehicle are lower than for a gas or diesel-powered vehicle

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19L

I can charge a zero-emission vehicle at my home

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19M

The style/type of vehicle I prefer isn't available as a zero-emission vehicle

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19N

Gas or diesel-powered vehicles are safer than zero-emission vehicles

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19O

Hydrogen fuel cell electric vehicles are more dangerous than other kinds of vehicles

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4

Strongly disagree	5
I Don't know	9 S

Q19P

I can charge a zero-emission vehicle at my workplace

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19Q

A zero-emission vehicle would save me money in the long run

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19R

Zero-emission vehicles have poor resale value

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19S

If too many people purchase zero-emission vehicles, it will put too much pressure on the electricity grid

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19T

Zero-emission vehicles contribute significantly to a reduction of greenhouse gas emissions and air pollutants compared to gas or diesel-powered vehicles

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19U

I am worried that charging a zero-emission vehicle at home will significantly increase my monthly electricity bill

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19V

There is an affordable zero-emission vehicle available that meets the needs of my lifestyle

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19W

Zero-emission vehicles perform poorly in cold weather

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q19X

Zero-emission vehicles don't have the same towing ability as conventional vehicles

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4

Strongly disagree	5
I Don't know	9 S

Q19Y

The total carbon footprint of zero-emission vehicles over their manufacture, use and disposal is lower than for comparable gas vehicles

Strongly agree	1
Somewhat agree	2
Neither agree nor disagree	3
Somewhat disagree	4
Strongly disagree	5
I Don't know	9 S

Q20

Which of the following statements is closest to your own point of view?

I would be willing to pay more for a zero emission vehicle than an equivalent gas or diesel-powered vehicle	1
I would only buy or lease a zero emission vehicle if the price were about the same as an equivalent gas or diesel-powered vehicle	2
I would only buy or lease a zero emission vehicle if the price were lower than an equivalent gas or diesel-powered vehicle	3
I would never buy a zero emission vehicle	4
Don't know	9

PQ21

For each of the factors below, please rate the extent to which they would make you more likely to consider purchasing or leasing a zero-emission vehicle

Q21A

Lower or zero gas costs to operate a zero-emission vehicle

A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21B

A short wait time for my vehicle to be delivered

A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21C

Lower maintenance costs than a similar gas vehicle	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21D

Selection of makes and models similar to that of gas vehicles	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21E

Proven winter weather performance	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21F

Lower total cost of owning and operating the vehicle (including purchasing, charging (fuel), maintenance and repairs, compared to similar gas vehicles)	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21G

Similar monthly payments compared to gas vehicles	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21H

Better towing capacity than a similar gas vehicle	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21I

10-year battery warranty	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21J

Rebates/incentives for purchasing or leasing the vehicle	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21K

Rebates/incentives for purchasing or installing a charging station at home	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21L

Equal or greater driving range than a gas or diesel vehicle	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21M

Having access to a charging station at home	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21N

Convenient access to charging stations at my workplace	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21O

More charging stations in public parking lots and shopping destinations	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21P

More charging stations along highways	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21Q

Convenient locations of public charging stations	
A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21R

A lower total carbon footprint over its manufacturing, use and disposal compared to a gas vehicle

A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9 S

Q21S [0,1]

Other, Please specify :

A great extent	1
Some extent	2
Little extent	3
No extent whatsoever	4
Don't know	9

Q22

If... Q21J = 1,2,3 or Q21K = 1,2,3

Have you seen, read or heard about the Government of Canada's vehicle purchase rebates to encourage Canadians to buy zero-emission vehicles?

Yes	1
No	2
Don't know	9

Q23

If... (Q21J = 1,2,3 or Q21K = 1,2,3) and Q22 = 1

Do you know how you can apply for these Government of Canada vehicle purchase rebates?

Yes	1
No	2
Don't know	9

Q24

Do you support or oppose the Government of Canada providing incentives to encourage Canadians to buy zero-emission vehicles?

Strongly support	1
Somewhat support	2
Neutral	3
Somewhat oppose	4
Strongly oppose	5
Don't know	9

Q25

Have you heard of Canada's *Electric Vehicle Availability Standard* – a federal regulation requiring that by 2035, 100% of new light duty vehicles for sale in Canada, including cars, SUVs and pick up trucks, must be zero-emission vehicles (ZEVs). The targets begin for the 2026 model year, with a requirement that at least 20 percent of new light-duty vehicles offered for sale in that year be ZEVs. The requirements increase annually to 60 percent by 2030 and 100 percent for 2035. ZEVs include battery-electric, plug-in hybrid electric and hydrogen fuel cell vehicles.

Yes, I have heard of this new regulation	1
No, I haven't heard of this new regulation	2
Don't know	9

PQ26

How much do you support or oppose the following policies?

Q26A

A sales mandate that ensures that by 2035, 100% of new cars and light duty trucks sold will be zero-emission vehicles, like electric cars

Strongly support	1
Somewhat support	2
Neither Oppose nor Support	3
Somewhat oppose	4
Strongly oppose	5
Don't know	9 S

Q26B

Building a national network of charging stations for electric vehicles

Strongly support	1
Somewhat support	2
Neither Oppose nor Support	3
Somewhat oppose	4
Strongly oppose	5
Don't know	9 S

Q26C

Banning the sale of new gas and diesel-powered cars and light-duty trucks by 2035

Strongly support	1
Somewhat support	2
Neither Oppose nor Support	3
Somewhat oppose	4
Strongly oppose	5
Don't know	9 S

QGENDR

These final few questions are for statistical purposes only. Your responses will be aggregated with those of other respondents to the survey and will help us to analyse different sub-groups of the population.

What is your gender?

Male	1	
Female	2	
Other :	77	X
Prefer not to answer	99	X

QAGEX

In what year were you born?

Year :	77	>
Prefer not to answer	99	

QAGEY

If... QAGEX = 99

Which of the following age categories do you belong to?

18-34	1
35-44	2
45-54	3
55-64	4
65 or older	5
Prefer not to answer	9

QPROV

In which province or territory of the country do you reside?

Newfoundland	1
Nova Scotia	2
Prince Edward Island	3
New Brunswick	4
Quebec	5
Ontario	6
Manitoba	7
Saskatchewan	8
Alberta	9
British Columbia	10
Northwest Territories/Yukon/Nunavut	11
Prefer not to answer	99

QEDUC

What is the highest level of formal education that you have completed?

Less than a high school diploma or equivalent	1
High School Diploma or equivalent	2
Registered Apprenticeship or other trades certificate or diploma	3
College, CEGEP, or other non-university certificate or diploma	4
University certificate or diploma below bachelor's level	5
Bachelor's degree	6
Post graduate degree above the bachelor's level	7
Prefer not to answer	9

QINC

Which of the following best describes your total household income last year, from all sources for all household members, before taxes?

Under \$20,000	1
\$20,000 to just under \$40,000	2
\$40,000 to just under \$60,000	3
\$60,000 to just under \$80,000	4
\$80,000 to just under \$100,000	5
\$100,000 to just under \$150,000	6
\$150,000 to just under \$200,000	7
\$200,000 to just under \$250,000	8
\$250,000 and above	9
Prefer not to answer	99

QHOME

Which of the following best describes the type of dwelling in which you live?

Single, detached home	1
Semi-detached	2
Townhome or row home	3
Apartment or condo	4
Other (please specify) :	77
Prefer not to answer	99

QLANE

Do you have access to your own driveway or indoor parking at home?

Yes	1
No	2
Prefer not to answer	9

QDISAB

Are you a person with a disability? A person with a disability is a person who has a long-term or recurring impairment (such as vision, hearing, mobility or mental health-related) which limits their daily activities inside or outside the home.

Yes	1
No	2
Prefer not to answer	9

QPOSTCELL

May we have the first three digits of your postal code?

Please specify :	77
Prefer not to answer	99

THNK

This completes the survey. This survey was conducted on behalf of Natural Resources Canada. On behalf of the Government of Canada, we thank you for taking the time to share your feedback. It is much appreciated.

THNK2

Unfortunately, based on your responses you are ineligible to participate in this survey. Thank you for your time!