



Natural Resources Canada Ressources naturelles Canada

Canadians' Awareness, Knowledge and Attitudes Related to Zero Emission Vehicles (ZEVs) – 2022

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 3,454 Canadians. The survey was conducted across Canada in both official languages. The field dates for the survey were September 9-October 4, 2022.

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

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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 it, 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).

To meet that critical need, the Government has set a mandatory target for all new light-duty cars and passenger trucks sales to be ZEVs by 2035. 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.

The first NRCan baseline survey of Canadians on awareness, knowledge and confidence in ZEVs was conducted in Summer 2021. 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 rapidly increase consumer intention and action on the purchase of ZEV technologies

NRCan commissioned EKOS Research Associates to undertake the first follow-up survey of Canadians examining their awareness, knowledge and confidence in ZEVs. Results will provide an update to the 2021 baseline survey 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.

B. METHODOLOGY

The research involved an online survey of 3,454 Canadians 18 years of age and older. The survey was conducted across Canada in both official languages. The field dates for the survey were September 9-October 4, 2022.

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 2021, 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.

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 slight 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	2022 % Agree	2021 % Agree	Change +/-
Have you ever driven or ridden in a zero-emission vehicle?	39%	32%	+7%
Do you know an owner of a zero-emission vehicle?	54%	46%	+8%
Have you considered purchasing or leasing an electric vehicle for your household?	52%	51%	+1%
There is an affordable ZEV that meets my lifestyle needs.	17%	28%	-11%
ZEVs can't travel far enough on a full charge	48%	44%	+5%
ZEVs perform poorly in cold weather	37%	28%	+9%
I have no interest in a zero-emission vehicle	20%	15%	+5%

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”.

Outlined below are key findings from this study, organized by topic area. The remainder of this report describes survey results in more detail. Please note that throughout this report only changes of 2 per cent or more between the 2022 and 2021 results should be considered significant.

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. As was found last year, two-thirds of Canadians (67 per cent) say they do intend to purchase a vehicle within the next 10 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 (32 per cent). These results are largely similar to those found in 2021.

Ownership and Intention to Lease/Purchase an Electric Vehicle

Those who indicated they had a vehicle in their household were asked if they currently lease or own an electric vehicle. Results reveal that, consistent with 2021 results, very few Canadians (six per cent) say they own or lease a vehicle that runs on electricity; the vast majority (94 per cent) do not.

Those who do not own or lease an electric vehicle were asked if they had considered purchasing or leasing an electric vehicle for their household. Results are split, with a slight majority (51 per cent) indicating that they had considered purchasing an electric vehicle, and a somewhat smaller proportion (44 per cent) indicating they had not (these results are virtually identical to those found last year).

Results further reveal that many of these respondents (53 per cent – up two percentage points since 2021) say they have thought about purchasing an electric vehicle, but have not taken any real steps to purchase/lease this type of vehicle. Three in ten (28 per cent) say they have started to gather information and make inquiries, but have not seriously considered an electric vehicle yet. Only one in six (17 per cent) say they have actually shopped for an electric vehicle (although this is up from 14 per cent in 2021).

Experience with Zero Emission Vehicles

Respondents were asked if they had ever driven or ridden in a ZEV. Results reveal that most Canadians (59 per cent) have not, while 39 per cent said they had. Tracking reveals a 7-point increase among those who indicated they had driven or ridden in a ZEV.

Those who had not driven or ridden in a ZEV were asked how interested they would be in taking a zero emission vehicle for a test drive. Most say they would be very (33 per cent) or somewhat (29 per cent) interested, although this is down 5 percentage points from 2021. Nineteen per cent (up from 15 per cent last year) said they were not at all interested.

Familiarity and Views on Zero Emission Vehicle Features

Results reveal that respondents have limited familiarity with a range of aspects of ZEVs. They are most familiar with the environmental benefits of ZEVs (56 per cent indicate they are familiar with the environmental impact of electric vehicles, although this is down from 62 per cent in 2021). Half say they are familiar with the price of ZEVs (51 per cent), the potential to charge (“fuel up”) the battery at their home (50 per cent), and how far a vehicle can go on a

fully charged battery (50 per cent). Only about one in four indicate familiarity with vehicle safety performance, vehicle maintenance costs, and the availability of all-wheel drive for these types of vehicles. Even fewer express familiarity with the warranty, resale value, towing capacity, or insurance costs of ZEVs. Across many of these aspects, familiarity, while still low, is up since 2021.

Respondents were also asked a number of attitudinal questions about ZEVs. Results reveal mixed views as well as a general lack of knowledge about these vehicles. Between 10 and 48 per cent of Canadians could not provide a response to the questions asked (although the proportion who said they were unsure is down somewhat since 2021 across many of these questions, reinforcing earlier findings that familiarity with ZEVs is up somewhat over the past year).

A clear majority of Canadians (70 per cent, up seven percentage points since 2021) believe that ZEVs are too expensive (only 5 per cent disagree with this idea). Canadians also generally believe that ZEVs are better for the environment than other types of vehicles. However, agreement that ZEVs are better for the environment is down over the past year: six in ten (61 per cent, down five percentage points since last year) 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 over half (51 per cent, down seven percentage points since 2021) agree that zero emission vehicles are less damaging to the environment than gas or diesel-powered vehicles. These tracking results suggest that an increasing proportion of Canadians have a fundamental misperception of the environmental impacts of ZEVs.

Concerns are also expressed about charging ZEVs. More than half of Canadians (55 per cent) agree that there are too few, if any, publicly available charging stations where they drive (in Saskatchewan/Manitoba, 66 per cent agree). In addition, almost half express concerns that ZEVs can't travel far enough on a full charge (49 per cent, up five percentage points since last year). Fewer than half agree that they can charge a zero emission vehicle at their home or workplace (44 per cent), in spite of the fact that roughly two-thirds of Canadians live in single-family dwellings that likely provide opportunities for home charging.. In addition, many worry that if too many people purchase ZEVs it will put too much pressure on the electric grid (43 per cent, up 17 points since 2021), and that charging a zero emission vehicle at home will significantly increase their monthly electricity bill (41 per cent).

Across many of the issues examined, Canadians could not even provide a response. One in four (25 per cent) feel that the style/type of vehicle they prefer isn't available as a ZEV, but many (27 per cent) are unsure. Fewer than one in five (17 per cent) feel there is an affordable zero

emission vehicle available that meets their lifestyle needs, but again, many (29 per cent) are unsure. Four in ten (40 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 almost half (46 per cent) are unsure whether zero emission vehicles have a poor resale value.

Results also reveal that many Canadians would only buy a zero emission vehicle if the price were about the same as an equivalent conventional vehicle (42 per cent, although this is down five percentage points since last year). About one in five (21 per cent – down 2 percentage points since 2021) would be willing to pay more for a zero emission vehicle than an equivalent conventional vehicle. Fifteen per cent (up four percentage points since last year) indicated they would only buy or lease a zero emission vehicle if the price were lower than an equivalent conventional vehicle, and 13 per cent (up four points since 2021) said they would never buy 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 reliability in Canadian climates/ winter weather performance, and having access to a charging station at home were seen as the most important factors in encouraging Canadians to consider purchasing/leasing ZEVs. Equal or greater driving range than a gas or diesel vehicle, a 10-year battery warranty, and rebates/incentives to cover the price difference between ZEVs and gas or diesel-powered vehicles were also seen as effective in encouraging Canadians to consider ZEVs. Across virtually all of the issues examined, there has been a decrease in belief that these factors would make respondents more likely to consider purchasing or leasing a ZEV.

Awareness and Support for Government Rebates

Results suggest Canadians have limited awareness of government rebates for ZEVs. Similar to last year, when asked whether they have seen, read or heard about the Government of Canada's vehicle purchase rebates to encourage Canadians to buy ZEVs, a slight majority (51 per cent) indicate they have not heard of these rebates, while four in ten say they are aware of them. Among those who indicated they are aware of these Government of Canada rebates, most (59 per cent) are unsure how to apply for them, although this is down 5 percentage points since last year.

Despite limited awareness of these rebates, a clear majority of respondents (63 per cent) support the Government of Canada providing incentives to encourage Canadians to buy zero emission vehicles, although support is down 6 percentage points over the past year.

D. CONTRACT VALUE

The contract value for the POR project is \$81,314.80 (including HST).

Supplier Name: EKOS Research Associates

PWGSC Contract Number: CW2237892

Contract Award Date: August 19, 2022

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

E. POLITICAL NEUTRALITY CERTIFICATION

This certification is to be submitted with the final report submitted to the Project Authority.

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 Communications Policy of the Government of Canada and Procedures for Planning and Contracting Public Opinion Research.

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)

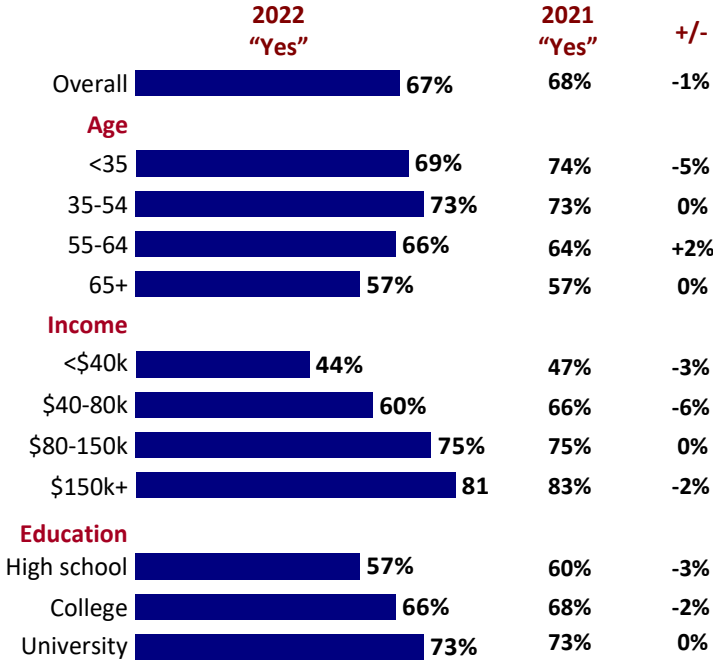
DETAILED FINDINGS

Outlined below are detailed findings from this study, organized by topic area. Please note that only changes of 2 per cent or more between the 2022 and 2021 results should be considered significant.

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 (67 per cent) say they do intend to purchase a vehicle within the next 10 years, 22 per cent do not intend to purchase a vehicle within this timeframe, and 12 per cent are unsure. These results are largely the same as those found last year.

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?

Note: Results do not include DK/NR.

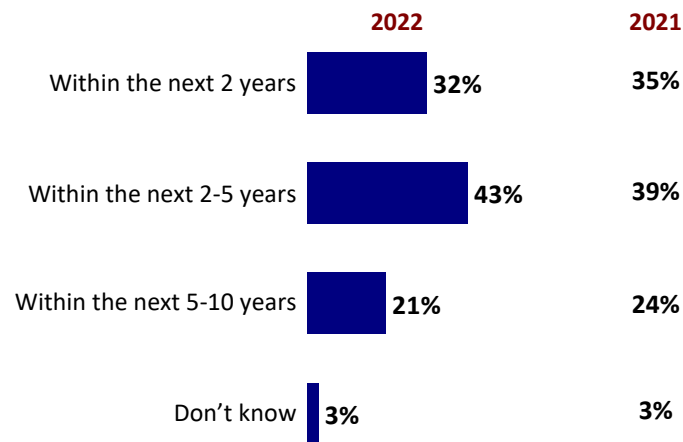
Base: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

- 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 67 per cent nationally).
- The likelihood of purchasing or leasing a vehicle rises progressively with both income (from 44 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 73 per cent among university graduates).
- Men (72 per cent) are more likely than women (63 per cent) to say they plan to purchase or lease a vehicle.
- 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/used personal vehicle in the next 10 years (75 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 (32 per cent). Again, results are largely similar to those found in 2021.

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?

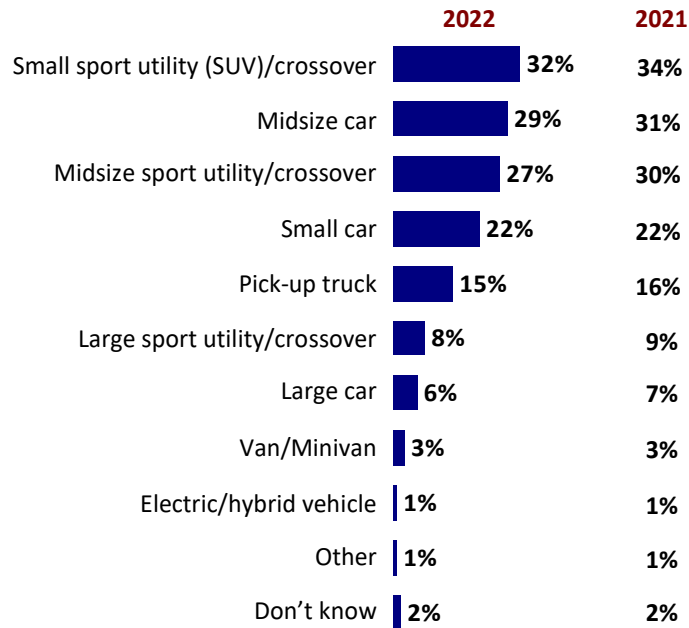
BASE: If plan to purchase vehicle; Sep 9 - Oct 4, 2022, n=2,331, MOE +/- 2.0, 19 times out of 20

- Residents of Alberta (38 per cent) and those 35-54 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 (47 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

Results suggest that small sport utility vehicles continue to be most likely to be purchased (32 per cent), followed closely by midsize vehicles (29 per cent), and midsize SUVs (27 per cent).

Chart 3: Size/type of vehicle to be purchased



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]

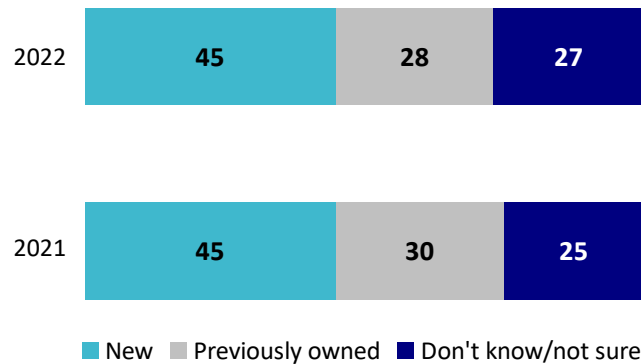
BASE: If plan to purchase vehicle; Sep 9 - Oct 4, 2022, n=2,331, MOE +/- 2.0, 19 times out of 20

- Ontarians are more likely than people in other provinces to consider purchasing/leasing a midsize car (33 per cent).
- The likelihood of considering purchasing/leasing a midsize sport utility/crossover is higher among respondents from Alberta (35 per cent) than in other provinces.
- The likelihood of considering purchasing/leasing a pick-up truck is higher among residents of Saskatchewan/Manitoba (24 per cent)
- Those under 35 years of age are more likely to consider purchasing/leasing a small (29 per cent) or midsize (41 per cent) vehicle.
- Those earning less than \$40,000 in household income (42 per cent) and those with university education (25 per cent) are more likely to consider purchasing/leasing a small car.

Intended Vehicle to be Purchased

Results further reveal that a plurality of these respondents plan to purchase a new vehicle (45 per cent), although a sizeable minority (28 per cent) intend to buy a used vehicle, and a fairly large proportion are unsure (27 per cent). Again, results are similar to last year.

Chart 4: Intended vehicle to be purchased



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

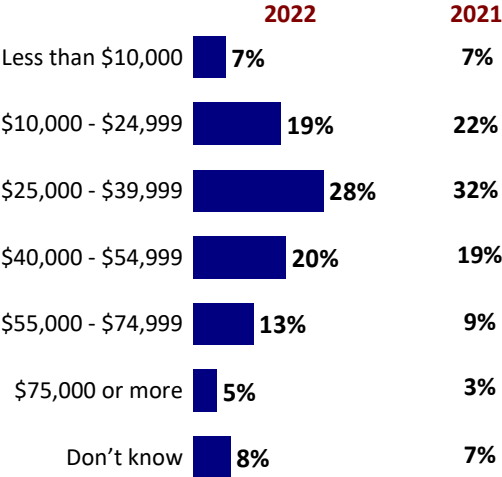
BASE: If plan to purchase vehicle; Sep 9 - Oct 4, 2022, n=2,331, MOE +/- 2.0, 19 times out of 20

- Those 65 years of age and older (59 per cent) and those with a household income of \$150,000 or greater (59 per cent) are more likely to say they will purchase a new vehicle.
- Men are more likely than women to say they will purchase a new vehicle (48 per cent versus 40 per cent).
- Conversely, residents of Saskatchewan/Manitoba are most likely to purchase a previously owned vehicle (36 per cent, compared to 28 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 (54 per cent).

Market Value of Vehicle to be Purchased

As was found in 2021, most 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?

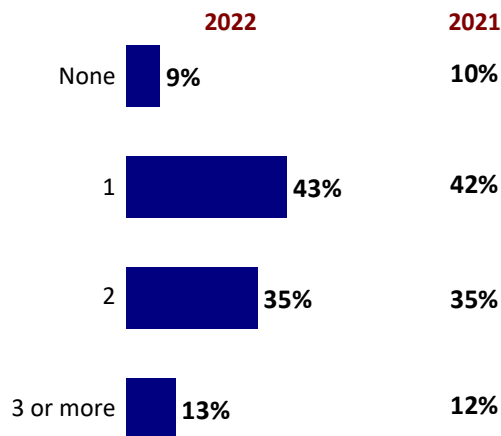
BASE: If plan to purchase vehicle; Sep 9 - Oct 4, 2022, n=2,331, MOE +/- 2.0, 19 times out of 20

- 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 (34 per cent), those 65 years of age and older (34 per cent), and those earning from \$80,000 to under \$150,000 in household income (32 per cent).
- Respondents that say they plan to purchase a previously owned vehicle are more likely to spend from \$10,000 to \$24,000 (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) indicate they have one car, while a sizeable proportion (35 per cent) say they have two vehicles. Nine per cent of Canadians say they do not own a vehicle, and 13 per cent indicate they have three or more vehicles in their household. These results are virtually identical to those found last year.

Chart 6: Number of personal vehicles owned



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

BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

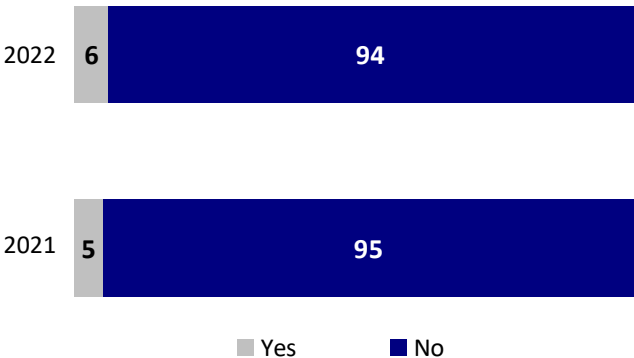
- Residents of Quebec are more likely to have one personal vehicle in their household (51 per cent, compared to 43 per cent nationally), and residents of Atlantic Canada and Alberta are more likely to have two (42 per cent each, compared to 35 per cent nationally).
- Those with a household income from \$40,000 to just under \$80,000 are more likely to have one vehicle in their household (56 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 (43 per cent).
- The number of vehicles in a household rises with income. For example, 11 per cent of those earning less than \$40,000 in household income say they have two vehicles, compared to 51 per cent among those earning \$150,000 or more.

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

Electric Vehicles Owned/Leased

Those who indicated they had a vehicle in their household were asked if they currently lease or own an electric vehicle. Results reveal that, consistent with 2021 results, very few Canadians (six per cent) say they own or lease a vehicle that runs on electricity; the vast majority (94 per cent) do not.

Chart 7: Electric vehicles owned/leased



Q5A. [IF OWN VEHICLE] Do you currently own or lease an electric vehicle (a vehicle that runs on electricity)?

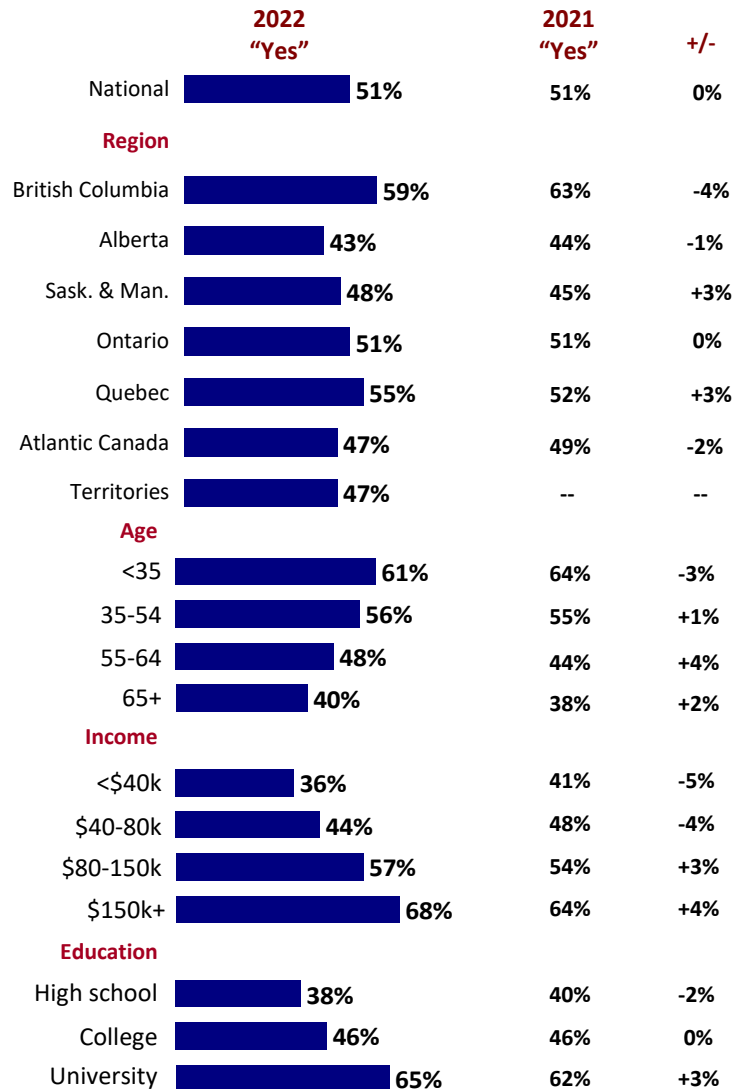
BASE: If own vehicle; Sep 9 - Oct 4, 2022, n=3,176, MOE +/- 1.7, 19 times out of 20

- Residents of Quebec (10 per cent), those with a household income of \$150,000 or more (9 per cent), those 35-54 years of age (8 per cent), and university graduates (8 per cent) are somewhat more likely to say they own an electric vehicle.

Intention to Purchase/Lease an Electric Vehicle

Those who do not own or lease an electric vehicle were asked if they had considered purchasing or leasing an electric vehicle for their household. Results are split, with a slight majority (51 per cent) indicating that they had considered purchasing an electric vehicle, and a somewhat smaller proportion (44 per cent) indicating they had not. These results are virtually identical to those found last year.

Chart 8: Intention to purchase/lease an electric vehicle



Q6. [IF NOT OWN ELECTRIC VEHICLE] Have you considered purchasing or leasing an electric vehicle (a vehicle that runs on electricity) for your household?

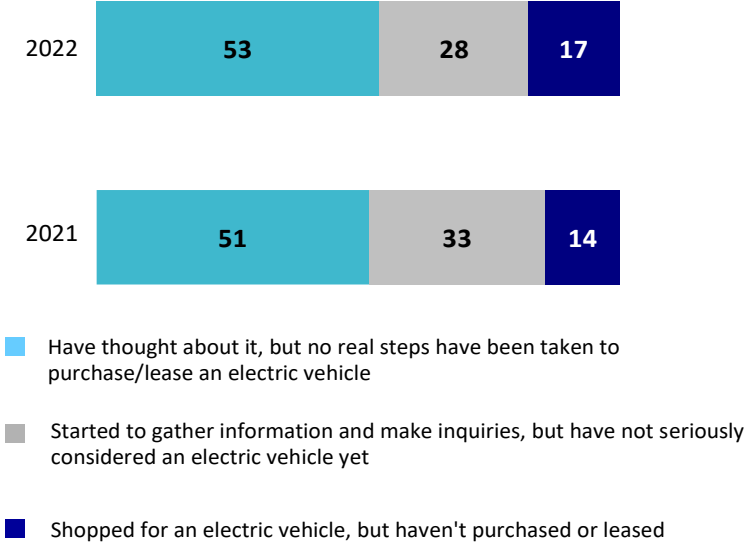
Note: Results do not include DK/NR.

BASE: If not own electric vehicle; Sep 9 - Oct 4, 2022, n=2,985, MOE +/- 1.8, 19 times out of 20

- Residents of BC are more likely to consider purchasing/leasing an electric vehicle (59 per cent, compared to 51 per cent nationally).
- The likelihood of considering the purchase/lease of an electric vehicle rises progressively with both income (from 36 per cent among those earning less than \$40,000 in household income, to 68 per cent of those earning \$150,000 or more), and education (from 38 per cent among those with a high school diploma, to 65 per cent of university graduates).
- Conversely, the incidence of those that have considered purchasing/leasing an electric vehicle declines with age (61 per cent of those under 35 years of age, compared to 40 per cent of those ages 65 and older).
- Respondents that are most likely to say they have considered purchasing/leasing an electric vehicle for their household include those willing to pay more for a ZEV than an equivalent conventional vehicle (86 per cent), and those saying they plan to purchase a new vehicle (63 per cent).
- The proportion who plan to purchase a new vehicle, and have considered purchasing/leasing an electric vehicle for their household, and are willing to pay more for a ZEV than an equivalent conventional vehicle represents 12 per cent of the Canadian population.

Those who said they had considered purchasing/leasing an electric vehicle were asked which of a range of options best describes their current situation with respect to purchasing or leasing an electric vehicle. Results reveal that most of these respondents (53 per cent - up two percentage points since 2021) say they have thought about purchasing an electric vehicle, but have not taken any real steps to purchase/lease this type of vehicle. Three in ten (28 per cent) say they have started to gather information and make inquiries, but have not seriously considered an electric vehicle yet. Only one in six (17 per cent) say they have actually shopped for an electric vehicle, although this is up from 14 per cent in 2021.

Chart 9: Attitudes towards purchasing/leasing an electric vehicle



Q7. [IF CONSIDERED PURCHASING ELECTRIC VEHICLE] Which of the following best describes your current situation with respect to purchasing or leasing an electric vehicle?

BASE: If considered purchasing electric vehicle; Sep 9 - Oct 4, 2022, n=1,502, MOE +/- 2.5, 19 times out of 20

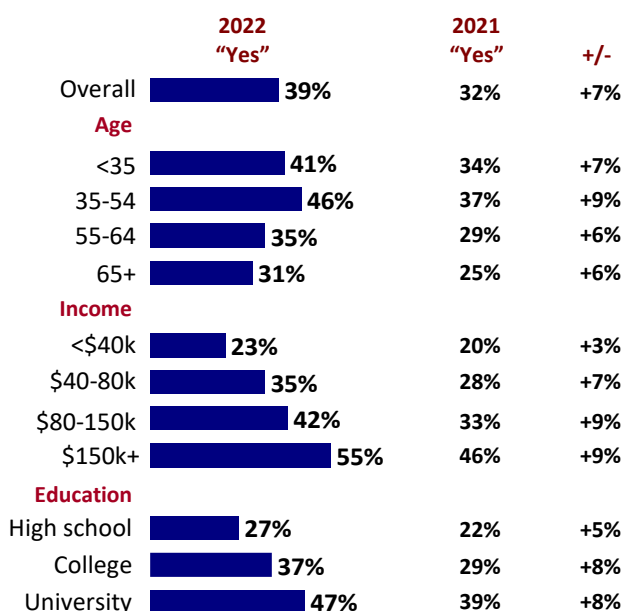
- Residents of Ontario (62 per cent), women (56 per cent), those earning less than \$40,000 in household income (59 per cent), and those with high school education (60 per cent) are particularly likely to say that they have thought about purchasing/leasing an electric vehicle, but that no real steps have been taken.

C. 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 fully 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 most Canadians (59 per cent) have not, while 39 per cent said they had. Tracking reveals a 7-point increase among those who indicated they had driven or ridden in a ZEV.

Chart 10: Experience with zero emission vehicles



Q8. Have you ever driven or ridden in a zero emission vehicle?

Note: Results do not include DK/NR.

BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

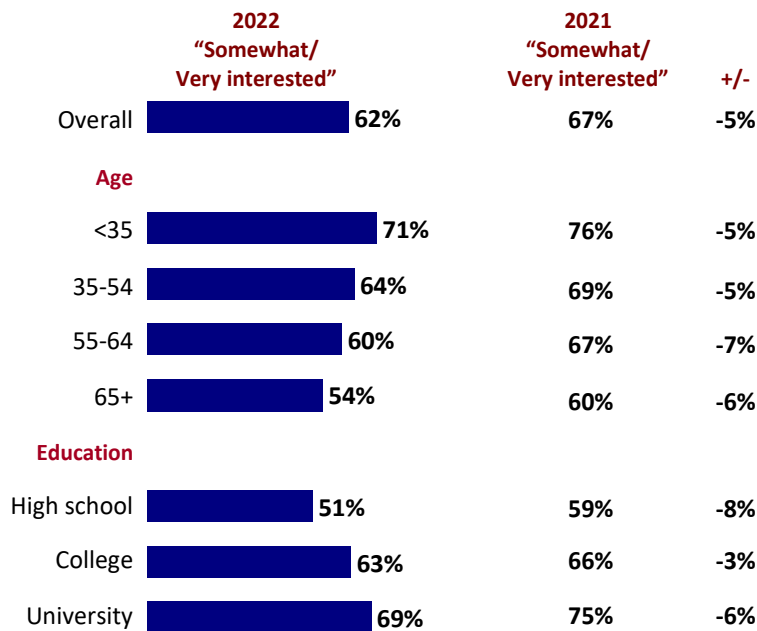
- Men (43 per cent), those ages 35 to 54 (46 per cent), and residents of BC (51 per cent) are particularly likely to say they have driven/ridden in a zero emission vehicle.
- Conversely, those from Atlantic Canada (27 per cent), women (35 per cent), those with high school education (27 per cent), and those earning less than \$40,000 in household income (23 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 23 per cent among those earning less than \$40,000 in household income to 55 per

cent of those earning \$150,000 or more) and education (from 27 per cent among those with a high school diploma to 47 per cent of university graduates).

Interest in Test Driving a Zero Emission Vehicle

Those who had not driven or ridden in a ZEV were asked how interested they would be in taking a zero emission vehicle for a test drive if they were able test one that suited their lifestyle needs, at a convenient location with an impartial expert to answer their questions. Most of these respondents say they would be very (33 per cent) or somewhat (29 per cent) interested, although this is down 5 points from 2021. Seventeen per cent said they were only a little interested in this idea, and 19 per cent (up from 15 per cent last year) said they were not at all interested.

Chart 11: Interest in test driving a zero emission vehicle



Q9. [IF HAVE NOT RIDDEN IN A ZEV] How interested, if at all, would you be in taking a zero emission vehicle for a test drive?

BASE: If have not ridden in a ZEV; Sep 9 - Oct 4, 2022, n=2,061, MOE +/- 2.2, 19 times out of 20

- Those under 35 years of age are more interested in taking a zero emission vehicle for a test drive (71 per cent compared to 62 per cent on average).
- Interest in taking a zero emission vehicle for a test drive rises progressively with both education (from 51 per cent among those with a high school diploma to 69 per cent of university graduates) and income (from 56 per cent of those earning less than \$40,000 in household income to 73 per cent of those earning \$150,000 or more).
- Respondents that are most likely to say they are interested in taking a zero emission vehicle for a test drive include those who say they are willing to pay more for a ZEV than an equivalent conventional vehicle (84 per cent), and those planning to purchase a new vehicle (71 per cent).
- The proportion who plan to purchase a new vehicle, and are very interested in taking a zero emission vehicle for a test drive, and are willing to pay more for a ZEV than an equivalent conventional vehicle represents 5 per cent of the Canadian population (identical to last year).

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 (54 per cent, up from 46 per cent in 2021).

Table 2: Experience with zero emission vehicle owners

Q10. Do you know an owner of a zero emission vehicle? For example, a friend, family member, neighbour or colleague	2022	2021	+/-
Yes	54%	46%	+8%
No	43%	52%	-9%

Note: Results do not include DK/NR.

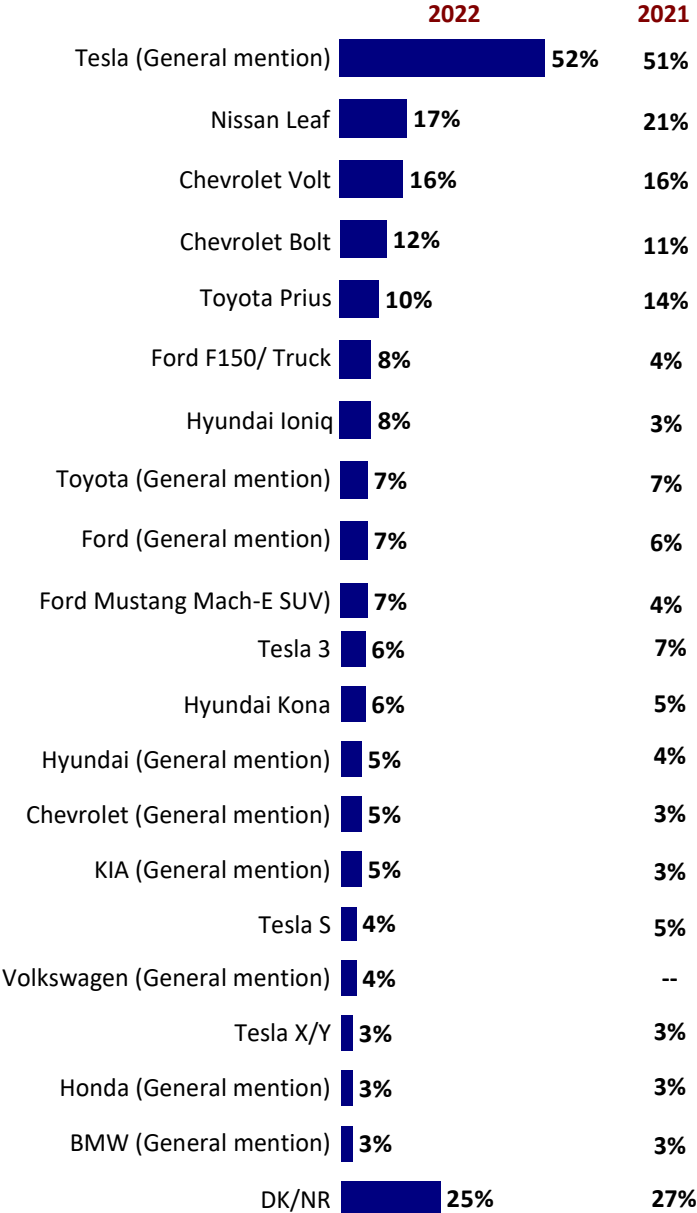
BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

- Residents of Quebec and BC (69 per cent and 62 per cent respectively), those ages 35 to 54 (60 per cent), those earning \$150,000 or more in household income (71 per cent) and university graduates (64 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 (56 per cent versus 51 per cent).
- Among those who say they know an owner of a ZEV, those willing to pay more for a ZEV (73 per cent) and those saying they plan to purchase a new vehicle (61 per cent) are most likely to say yes to this question.

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 last year, Tesla is mentioned most often (52 per cent), followed distantly by the Nissan Leaf (17 per cent) and the Chevrolet Volt (16 per cent). One in four (25 per cent) could not provide a response to this question (Chart is on following page).

Chart 12: Awareness of zero emission vehicle makes and models



Q11A. 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; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

- Those ages 35 to 64 (57 per cent), those earning \$150,000 or more in household income (62 per cent), and university graduates (59 per cent) are the most likely to name Tesla as a ZEV they are aware of.
- Respondents more likely to name Tesla include those willing to pay the same or more for a zero emission vehicle than an equivalent conventional one (57 per cent each), and those saying they plan to purchase a new vehicle (56 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.

D. FAMILIARITY AND VIEWS ON ZERO EMISSION VEHICLE FEATURES

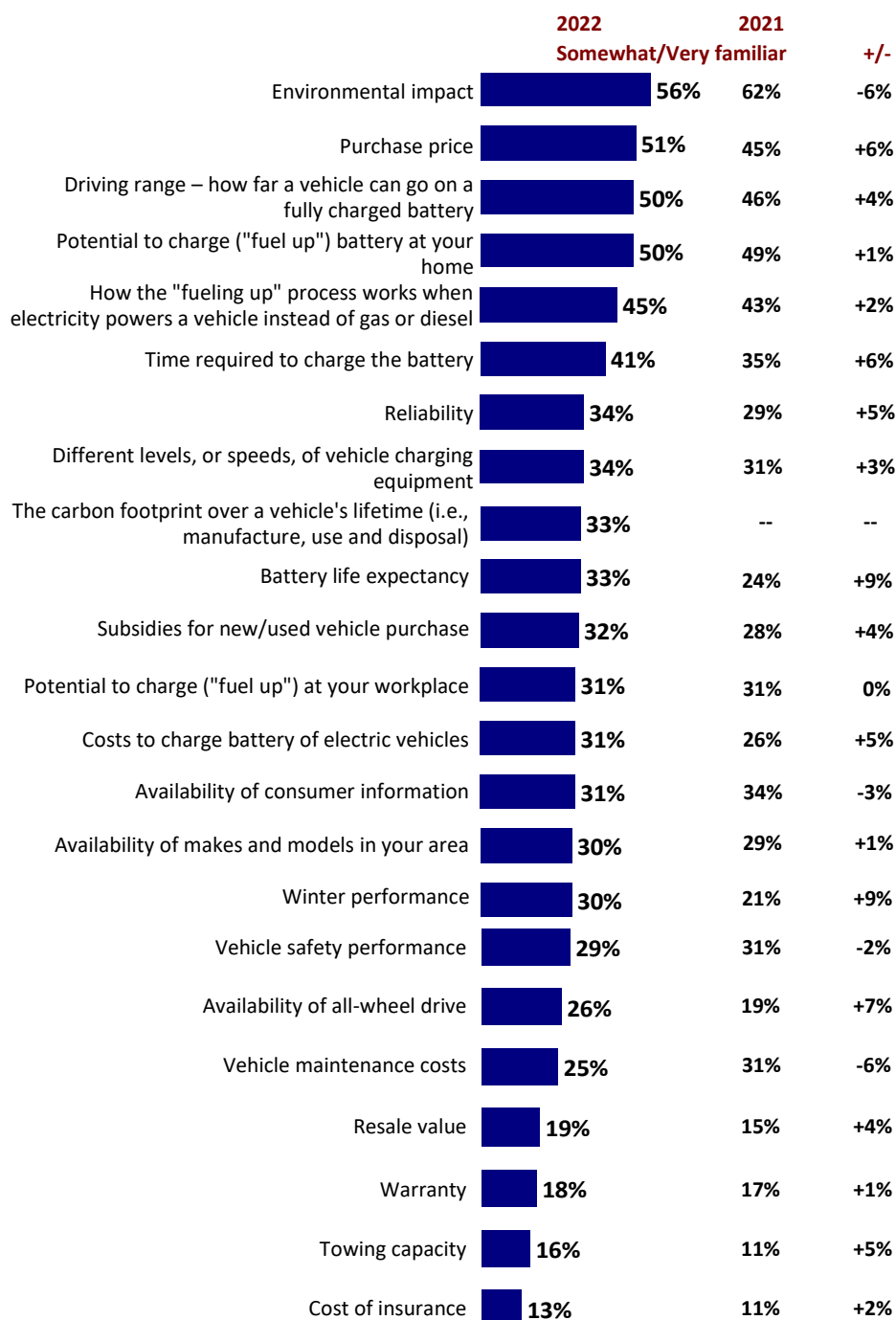
Familiarity and Views on Zero Emission Vehicle Features

Results reveal that respondents have limited familiarity with a range of aspects of zero emission vehicles. They are most familiar with the environmental benefits of ZEVs (56 per cent indicate they are familiar with the environmental impact of electric vehicles, although this is down 6 percentage points from 2021). Half say they are familiar with the price of ZEVs (51 per cent), the potential to charge (“fuel up”) the battery at their home (50 per cent), and how far a vehicle can go on a fully charged battery (50 per cent). About four in ten indicate they are familiar with how the “fueling up” process works when electricity powers a vehicle (45 per cent), and the time required to charge the battery (41 per cent).

About one in three express familiarity with the reliability of ZEVs (34 per cent), the different speeds of vehicle charging equipment (34 per cent), the carbon footprint of ZEVs (33 per cent), and battery life expectancy (33 per cent). Three in ten say they are familiar with subsidies for new/used zero emission vehicle purchase, the availability of consumer information about ZEVs, the potential to charge (“fuel up”) at their workplace, costs to charge the battery of electric vehicles, the availability of makes and models in their area, and the winter performance of ZEVs.

Only about one in four indicate familiarity with vehicle safety performance, vehicle maintenance costs, and the availability of all-wheel drive for these types of vehicles. Even fewer express familiarity with the warranty, resale value, towing capacity, or insurance costs of ZEVs. Across many of these aspects, familiarity, while still low, is up since 2021. (Chart is on following page).

Chart 13: Familiarity with zero emission vehicle features



Q12A-W. In general, how familiar are you with each of the following aspects of zero emission vehicles?

Note: Results do not include DK/NR.

BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

- Generally speaking, residents of BC, those ages 35 to 54, those with a household income of \$150,000 or more, and university graduates are more familiar with zero emission vehicle features.
- Men are more familiar than women with all zero emission vehicle aspects. For instance, 62 per cent of men are familiar with the driving range, compared to 39 per cent of women. Similarly, 60 per cent of men are familiar with the potential to charge the battery at home, compared to 41 per cent of women.
- Respondents that are most likely to say they are familiar with the environmental impact of a ZEV include 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 (63 per cent).

Interest in Purchasing/Leasing Zero Emission Vehicles

When asked which of a range of statements best describes their interest in purchasing/leasing zero emission vehicles, one in five (21 per cent) say they are very interested in a zero emission vehicle and will definitely consider one when purchasing their next vehicle. Roughly the same proportion (24 per cent) indicate some interest in a zero emission vehicle but cannot find a way to test drive one in their area. Only three per cent say they would consider a ZEV when purchasing or leasing their next vehicle. One in five (21 per cent) have some interest in a zero emission vehicle, but today's options do not meet their driving needs. Twenty per cent have no interest in a zero emission vehicle, and 11 per cent don't know enough about zero emission vehicles to make a decision. Tracking reveals a four point decrease among those who indicate they are very interested in a ZEV, and a five point increase among those who say they have no interest in a ZEV.

Table 3: Interest in purchasing/leasing zero emission vehicles

Q16. Which of the following statements best describes your interest in purchasing/leasing zero emission vehicles?	2022	2021	+/-
I am very interested in a zero emission vehicle and will definitely consider one when purchasing my next vehicle	21%	25%	-4%
I have some interest in a zero emission vehicle but I cannot find a way to test drive one in my area	24%	25%	-1%
I have some interest in a zero emission vehicle and would consider one when purchasing or leasing my next vehicle	3%	3%	0%
I have some interest in a zero emission vehicle, but today's options do not meet my driving needs	21%	19%	+2%
I have no interest in a zero emission vehicle	20%	15%	+5%
I don't know enough about zero emission vehicles to answer	11%	13%	-2%

BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

- Quebec and BC residents (25 per cent each), those under 54 years of age (24 per cent), those earning \$150,000 or more in household income (35 per cent) and university graduates (28 per cent) are particularly likely to say they are very interested in a zero emission vehicle and will definitely consider one when purchasing their next vehicle.
- Respondents most likely to say they are very interested in a zero emission vehicle and will definitely consider one when purchasing their next vehicle include those who indicate they plan to purchase a new vehicle (31 per cent), and those willing to pay more for a zero emission vehicle than an equivalent conventional one (56 per cent).

Attitudes Towards Zero Emission Vehicles

Respondents were also asked a number of attitudinal questions about ZEVs. Results reveal mixed views on electric vehicles, as well as a general lack of knowledge about these vehicles (from 10 to 48 per cent of Canadians could not provide a response to the questions asked).

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 (70 per cent, up seven percentage points since 2021) believe that zero emission vehicles are too expensive (only 5 per cent disagree with this idea). However, Canadians also generally believe that ZEVs are better for the environment than other types of vehicles (although agreement is down over the past year). Six in ten (61 per cent, down five percentage points since last year) 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 over half (51 per cent, down seven points since 2021) agree that zero emission vehicles are less damaging to the environment than gas or diesel-powered vehicles.

Results reveal that Canadians feel ZEVs are somewhat more likely to face supply chain issues than gas/diesel powered vehicles (57 per cent vs. 50 per cent, respectively).

Concerns are also expressed about charging ZEVs. More than half of Canadians (55 per cent) agree that there are too few, if any, publicly available charging stations where they drive (in Saskatchewan/Manitoba, 66 per cent agree). In addition, almost half express concerns that zero emission vehicles can't travel far enough on a full charge (49 per cent, up five points since last year), Fewer than half agree that they can charge a zero emission vehicle at their home or workplace (44 per cent). In addition, many worry that if too many people purchase zero emission vehicles it will put too much pressure on the electric grid (43 per cent, up 17 points since 2021), and that charging a zero emission vehicle at home will significantly increase their monthly electricity bill (41 per cent).

Four in ten (37 per cent, up 9 percentage points over the last year) agree that zero emissions vehicles perform poorly in cold weather, and many (35 per cent) are unsure. The same proportion (37 per cent) agree that the total carbon footprint of ZEVs is lower than comparable gas vehicles, but 26 per cent are unsure.

Only one in three believe a zero emission vehicle would save them money (23 per cent are unsure), and three in ten 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. Fewer than three in ten agree that zero emission vehicles perform as well, if not better than gas or diesel-powered vehicles.

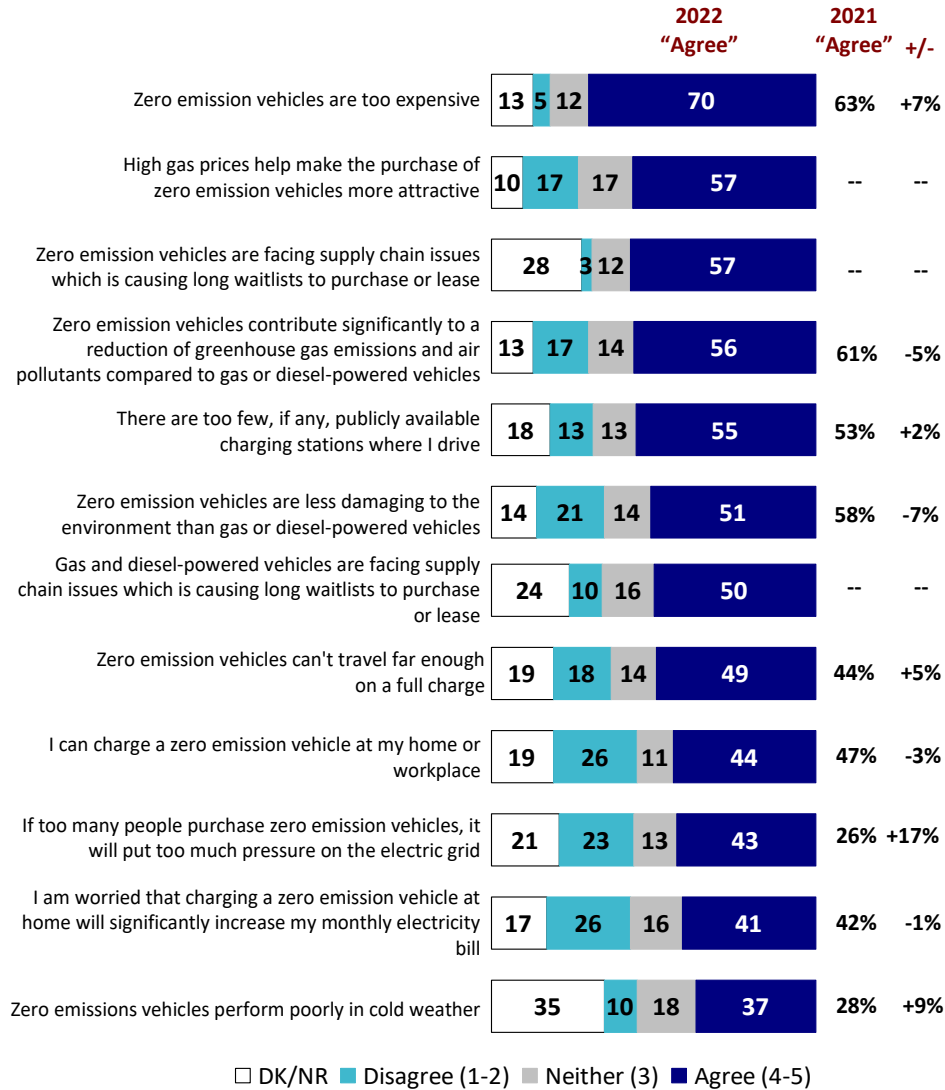
One in four feels that the style/type of vehicle they prefer isn't available as a zero emission vehicle, but most are unsure. Fewer than one in five (17 per cent) feel there is an affordable zero emission vehicle available that meets their lifestyle needs, but again, many are unsure.

Four in ten are unsure whether the repair and maintenance costs for a zero emission vehicle are lower than for a gas or diesel-powered vehicle (40 per cent), and almost half are unsure whether zero emission vehicles have a poor resale value (46 per cent).

Moreover, almost half of Canadians could not provide a response when asked whether hydrogen fuel cell electric vehicles are more dangerous than other kinds of vehicles, or whether zero-emission vehicles have the same towing ability as conventional vehicles (48 per cent each).

Finally, only one in four (25 per cent) agree that it is difficult to find credible sources of information about zero emission vehicles, and only one in ten (13 per cent) feel that gas or diesel-powered vehicles are safer than ZEVs, but again, many express uncertainty about these issues. (Charts are on following pages).

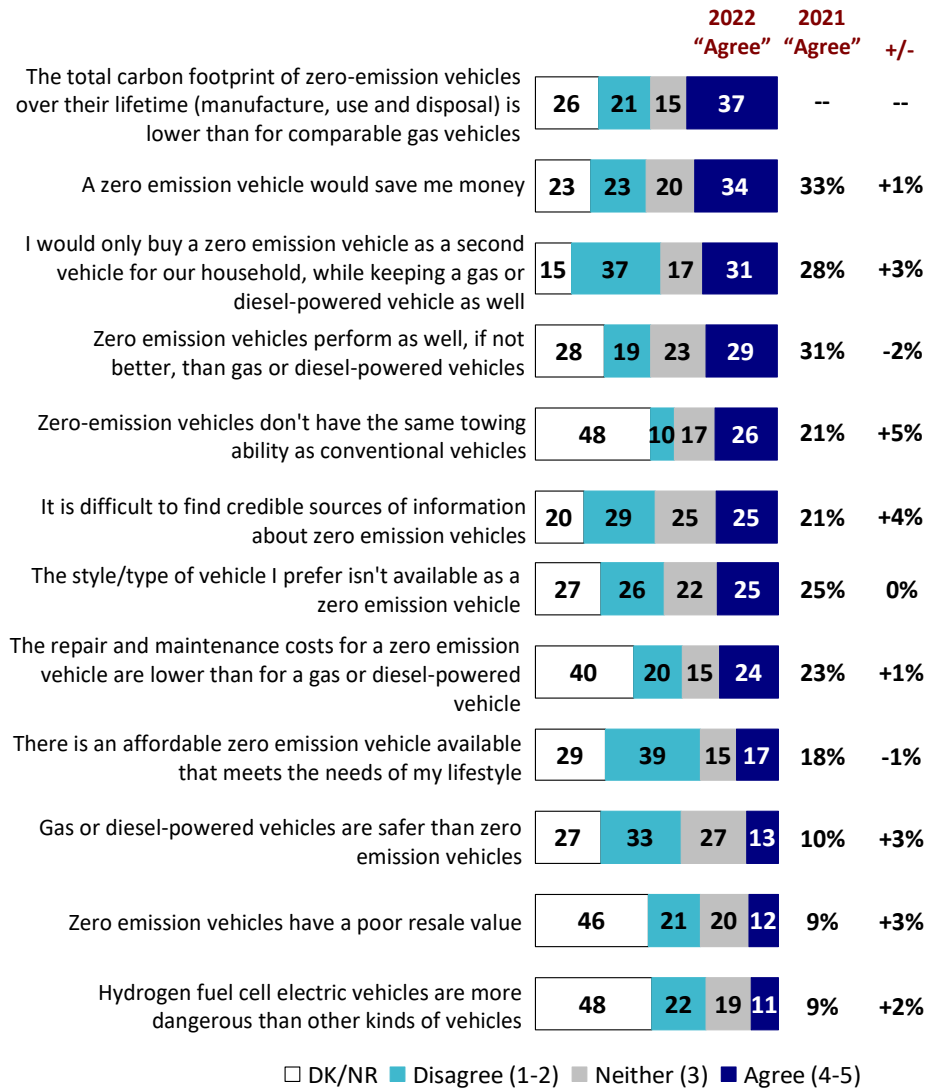
Chart 14: Attitudes towards zero emission vehicles (i)



Q17A-X. Please indicate [on a 5 point scale] whether you agree or disagree with each of the following statements about zero emission vehicles.

BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

Chart 15: Attitudes towards zero emission vehicles (ii)



Q17A-X. Please indicate [on a 5 point scale] whether you agree or disagree with each of the following statements about zero emission vehicles.

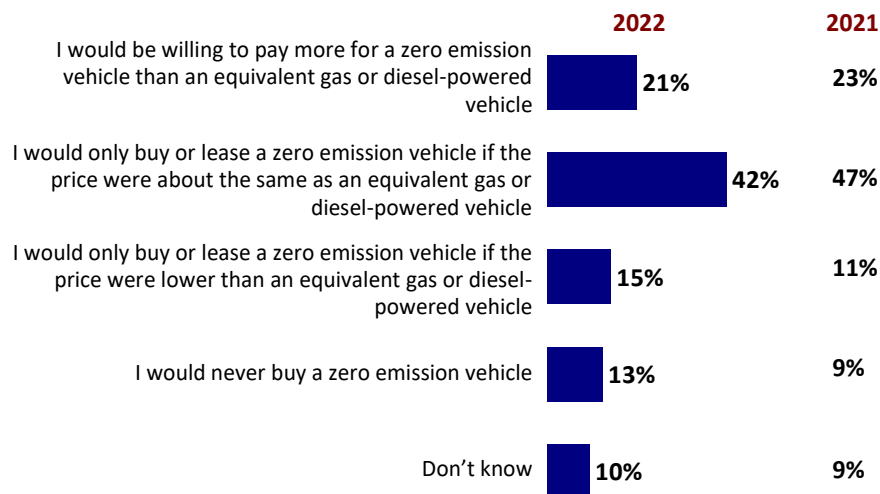
BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

- Men are more likely than women to agree that zero emission vehicles are too expensive (74 per cent, compared to 66 per cent).
- Quebeckers (64 per cent), those with a household income of \$150,000 or more (62 per cent), and university graduates (67 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.
- 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 and Ontario (55 per cent each), women (54 per cent), those 65 years of age and older (55 per cent), and university graduates (62 per cent).
- Residents of Saskatchewan/Manitoba (66 per cent), Alberta (61 per cent), and Atlantic Canada (62 per cent), those with an annual household income of \$150,000 or more (60 per cent), and university graduates (58 per cent) are more likely to agree that there are too few, if any, publicly available charging stations where they drive.
- Men (52 per cent), Quebeckers (55 per cent), those earning \$150,000 or more in household income (58 per cent), and university graduates (50 per cent) are more likely to agree that they can charge a zero emission vehicle at their home or workplace.
- Agreement with the idea that zero emission vehicles can't travel far enough on a full charge is higher among residents of Alberta (58 per cent), men (53 per cent), and those earning \$150,000 or more in household income (54 per cent).
- Respondents most 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 those willing to pay more for a zero emission vehicle than an equivalent conventional one (85 per cent) and those saying they plan to purchase a new vehicle (63 per cent).

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 (42 per cent, although this is down five percentage points since last year). About one in five (21 per cent – down 2 percentage points since 2021) would be willing to pay more for a zero emission vehicle than an equivalent conventional vehicle. Fifteen per cent (up four percentage points since last year) indicated they would only buy or lease a zero emission vehicle if the price were lower than an equivalent conventional vehicle, and 13 per cent (up four points since 2021) said they would never buy a zero emission vehicle.

Chart 16: Importance of price in purchase of zero emission vehicles



Q18. Which of the following statements is closest to your own point of view?

BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

- B.C. residents (46 per cent), those under 35 years of age (47 per cent) and those earning from \$80,000 to less than \$150,000 in household income (45 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 (25 per cent), those with a household income of \$150,000 or more (35 per cent), and university graduates (31 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

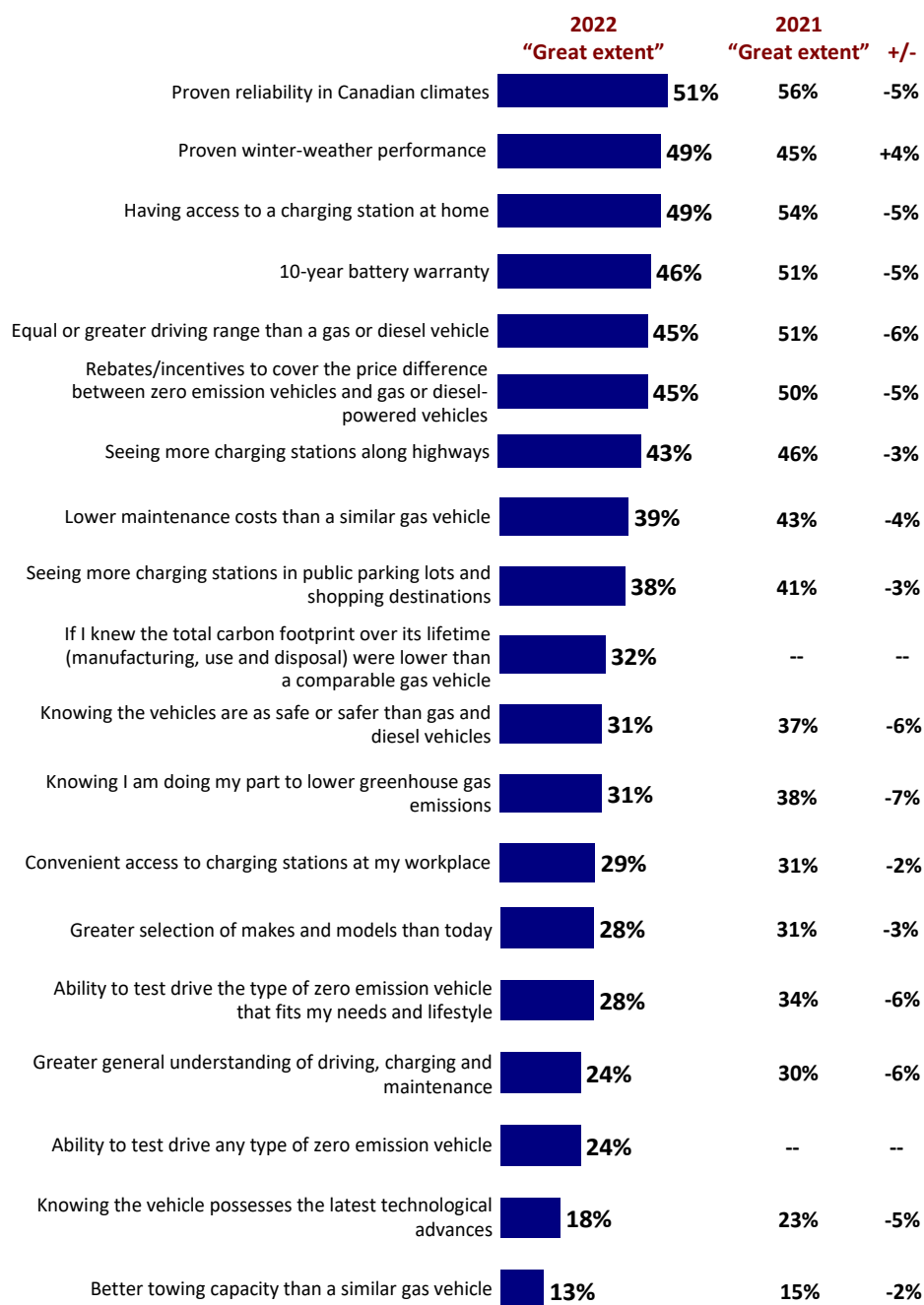
Canadians were also asked to what extent a range of factors would make them more likely to consider purchasing or leasing a zero emission vehicle. Interestingly, across virtually all of the issues listed above, there has been a decrease in belief that these factors would make respondents more likely to consider purchasing or leasing a zero emission vehicle.

Proven reliability in Canadian climates/winter weather performance, and having access to a charging station at home were seen as the most important factors in encouraging Canadians to consider purchasing/leasing ZEVs.

Equal or greater driving range than a gas or diesel vehicle, a 10-year battery warranty, and rebates/incentives to cover the price difference between zero emission vehicles and gas or diesel-powered vehicles were also seen as effective in encouraging Canadians to consider ZEVs.

Relatively few felt that knowing the vehicle possesses the latest technological advances, or better towing capacity would encourage consideration of ZEVs. (Chart is on following page).

Chart 17: Factors encouraging purchasing/leasing a zero emission vehicle



Q19C-U. To what extent would each of the following factors make you more likely to consider purchasing or leasing a zero emission vehicle?

Note: Results do not include DK/NR.

BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

- Residents of the Saskatchewan/Manitoba (57 per cent), those with a household income of \$150,000 or more (57 per cent) and university graduates (57 per cent) are more likely to consider purchasing/leasing a ZEV if the vehicle has proven reliability in Canadian climates.
- Respondents most likely to consider the purchase of a ZEV if the vehicle has proven reliability in Canadian climates include those willing to pay the same for a zero emission vehicle as an equivalent conventional one (61 per cent), and those saying they plan to purchase a new vehicle (59 per cent).
- Residents of Ontario (54 per cent), those 35-54 years of age (52 per cent), those earning \$150,000 or more in household income (59 per cent) and university graduates (57 per cent) are more likely to say they would consider purchasing/leasing a ZEV if they have access to a charging station at home.

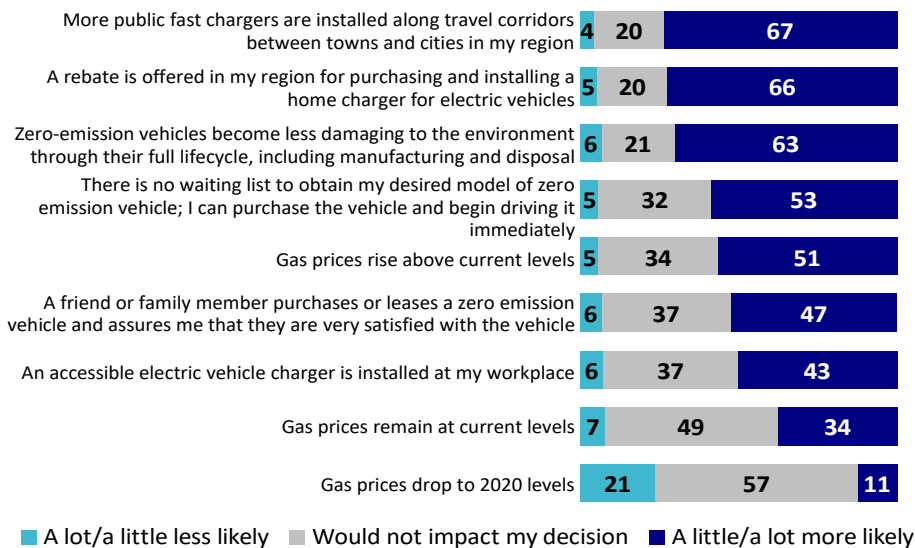
Events Influencing Purchase/Lease of a ZEV

Responding to new lines of questioning added to the 2022 survey, Canadians were asked to rate the extent to which a number of events would make them more likely to purchase or lease a zero emission vehicle. More public fast chargers installed along travel corridors in their region, rebates for home chargers for electric vehicles, and ZEVs becoming less damaging to the environment through their full lifecycle are seen as most likely to encourage the purchase or lease of a ZEV.

About half indicate that no waiting list for their desired ZEV, and gas prices continuing to rise would encourage them to purchase/lease a ZEV.

Gas prices remaining the same or dropping to 2020 levels would be less likely to encourage ownership of a ZEV.

Chart 18: Events influencing purchase/lease of a ZEV



Q20A-M. Thinking of making your next vehicle purchase, rate the extent to which these events below would make you more or less likely to purchase or lease a zero-emission vehicle.

Note: Results do not include DK/NR.

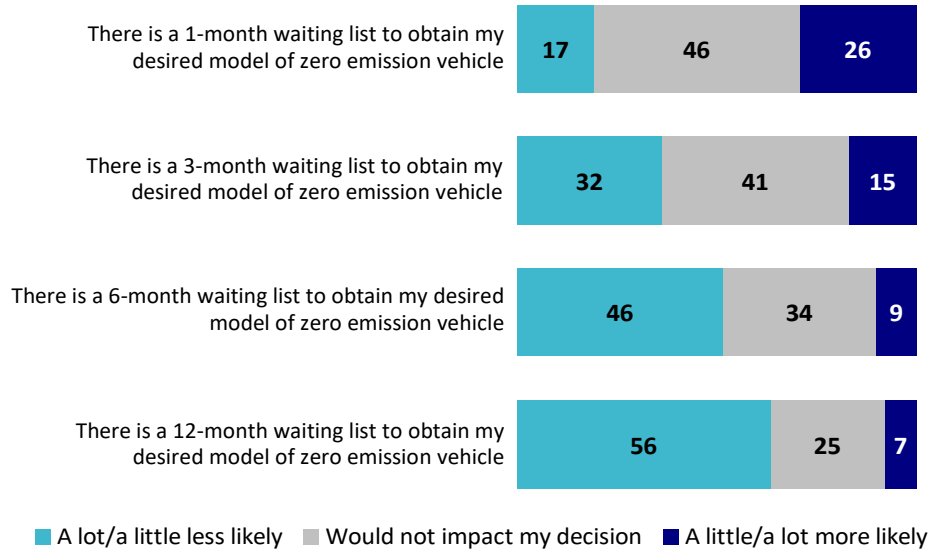
BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

- B.C. residents (71 per cent), those earning \$150,000 or more in household income (76 per cent), and those with university education (76 per cent) are particularly likely to indicate that more public fast chargers along travel corridors would encourage them to purchase/lease a ZEV.
- Atlantic (71 per cent) and B.C. (70 per cent) residents, those earning \$150,000 or more in household income (74 per cent), and those with university education (76 per cent) are more likely to say a rebate for home chargers would encourage them to purchase/lease a ZEV.
- B.C. residents (67 per cent), women (66 per cent), those earning \$150,000 or more in household income (70 per cent), and those with university education (72 per cent) are more likely to indicate ZEVs being less damaging to the environment would encourage them to purchase/lease a ZEV.

Impact of Wait Time for ZEV

Survey results also reveal that longer waiting times to obtain their desired ZEV lessens the likelihood of purchase or lease of a ZEV.

Chart 19: Impact of waiting time for ZEV



Q20A-M. Thinking of making your next vehicle purchase, rate the extent to which these events below would make you more or less likely to purchase or lease a zero-emission vehicle.

Note: Results do not include DK/NR.

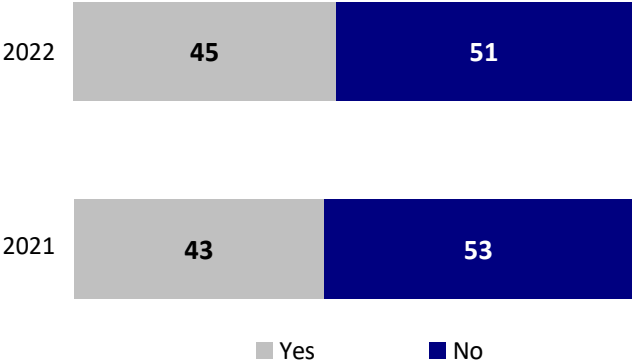
BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

E. AWARENESS AND SUPPORT FOR GOVERNMENT REBATES

Awareness and Understanding of Government Rebates for Zero Emission Vehicles

Results suggest Canadians have limited awareness of government rebates for ZEVs. Similar to last year, 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 slight majority (51 per cent) indicate they have not heard of these rebates, while four in ten say they are aware of them.

Chart 20: Awareness of government rebates for zero emission vehicles



Q21. Have you seen, read or heard about the Government of Canada's vehicle purchase rebates to encourage Canadians to buy zero emission vehicles?

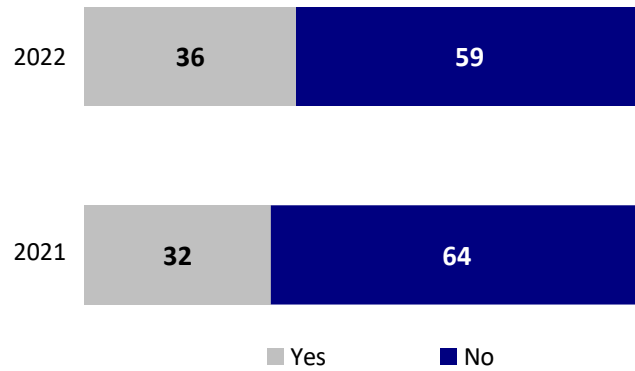
Note: Results do not include DK/NR.

BASE: Canadians; Sep 9 - Oct 4, 2022, n=2,719, MOE +/- 1.9, 19 times out of 20

- Residents of Quebec are more likely to have seen, read or heard about the Government of Canada's vehicle purchase rebates (67 per cent, compared to 45 per cent nationally).
- Men (47 per cent), those under 35 years of age (48 per cent), those willing to pay more for a zero emission vehicle than an equivalent conventional one (60 per cent), and those saying they plan to purchase a new vehicle (52 per cent) are also more likely to express awareness of these rebates.
- Awareness of Government of Canada rebates rise progressively with both income (from 37 per cent among those earning less than \$40,000 in household income to 49 per cent among those earning \$80,000 or more) and education (from 35 per cent among those with a high school diploma to 50 per cent among university graduates).

Among those who indicated they are aware of these Government of Canada rebates, most (59 per cent) are unsure how to apply for them, although this is down 5 per cent since last year.

Chart 21: Understanding of government rebates for zero emission vehicles



Q22. [IF YES] Do you know how you can apply for these Government of Canada vehicle purchase rebates?

Note: Results do not include DK/NR.

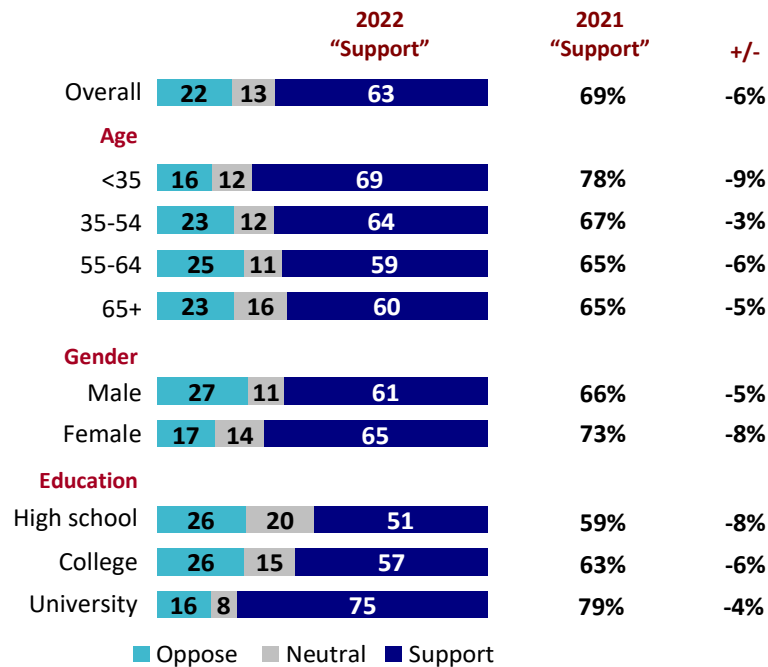
BASE: If yes; Sep 9 - Oct 4, 2022, n=1,230, MOE +/- 2.8, 19 times out of 20

- Those ages 55-64 (65 per cent), those earning less than \$40,000 in household income (74 per cent), and those with high school education (66 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

Despite limited awareness of these rebates, a clear majority of respondents (63 per cent) support the Government of Canada providing incentives to encourage Canadians to buy zero emission vehicles, although support is down since last year.

Chart 22: Support for government incentives for the purchase of zero emission vehicles



Q23. Do you support or oppose the Government of Canada providing incentives to encourage Canadians to buy zero emission vehicles?

Note: Results do not include DK/NR.

BASE: Canadians; Sep 9 - Oct 4, 2022, n=3,454, MOE +/- 1.7, 19 times out of 20

- Support for Government of Canada incentives to encourage the purchase of zero emission vehicles rises progressively with education (51 per cent of those with a high school diploma, compared to 75 per cent of university graduates).
- Residents of Quebec (76 per cent), those under 35 years of age (69 per cent), women (65 per cent), those earning \$150,000 or more in household income (69 per cent), those willing to pay more for a zero emission vehicle than an equivalent conventional one (92 per cent) and those saying they plan to purchase a new vehicle (69 per cent) are also more likely to support these incentives.

APPENDICES

A. METHODOLOGICAL DETAILS

The research involved an online survey of 3,454 Canadians. The survey was conducted across Canada in both official languages. The field dates for the survey were September 9-October 4, 2022.

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 $n=3,454$ 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%	137	52
Nova Scotia	3%	140	4%	146	94
Prince Edward Island	<1%	75	2%	77	14
New Brunswick	2%	135	4%	137	77
Quebec	23%	750	22%	762	783
Ontario	39%	800	23%	804	1,320
Manitoba	4%	180	5%	181	120
Saskatchewan	3%	180	5%	183	102
Alberta	11%	475	14%	477	382
British Columbia	14%	500	15%	502	481
Territories	<1%	30	1%	31	12
Age					
18-34	27%	930	22%	758	919
35-54	32%	1,158	36%	1,240	1,101
55+	41%	1,311	41%	1,418	1,396
Gender					
Male	49%	1,652	47%	1,637	1,659
Female	51%	1,747	51%	1,772	1,750

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

Variable	Total sample %	% of population
Education ^α		
High school or less	21	35
Apprentice/college/some university	36	36
University graduate/post-graduate	42	29
Total annual household income+		
Under \$40,000	13	17
\$40,000-<\$80,000	24	30
\$80,000-<\$100,000	13	13
\$100,000-<\$150,000	20	22
\$150,000 or more	19	18
Survey language /official languages		
English	82	85
French	18	15

^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 18.7 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)	21,532
Total completes (d)	3,454
Qualified break-offs (e)	660
Disqualified (f)	2
Not responded (g)	17,380
Quota filled (h)	36
Contact rate = (d+e+f+h)/c	19%
Participation rate = (d+f+h)/c	16%

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	47%	49%
Female	51%	51%
Age		
18-34	22%	27%
35-54	36%	32%
55+	41%	41%
Education level ^α		
High school diploma or less	20%	35%
Trades/college/post sec no degree	37%	36%
University degree	42%	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 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 voluntary and completely confidential. Your answers will remain 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 need an alternative means of accessing the survey, click the following link: Accessible version.

The survey is registered with the Research Verification Services operated by the Canadian Research Insights Council (CRIC). Click here if you wish to verify its authenticity (project code 20220909-EK293).

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

QA = Yes

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

QA = Yes

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

QA = Yes

If... QA = 1

What will likely be the total market value 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	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

Q5A

Q5 greater than 0

If... Q5 = 1,2,3

Do you currently own or lease an electric vehicle (a vehicle that runs on electricity)?

Yes	1
No	2

Don't know 9

Q6

Q5A = No

If... Q5 = 1,2,3 and Q5A = 2

Have you considered purchasing or leasing an electric vehicle (a vehicle that runs on electricity) for your household?

Yes 1
No 2
Don't know 9

Q7

Q6 = Yes

If... Q5 = 1,2,3 and Q5A = 2 and Q6 = 1

Which of the following best describes your current situation with respect to purchasing or leasing an electric vehicle:

Shopped for an electric vehicle, but haven't purchased or leased..... 1
Started to gather information and make inquiries, but have not seriously considered an electric vehicle yet 2
Have thought about it, but no real steps have been taken to purchase/lease an electric vehicle..... 3
Have not considered buying/leasing an electric vehicle 4
Was not aware electric vehicles were available for purchase..... 9

Q8

Now, we have a few questions about zero emissions vehicles (ZEVs).

Zero emissions vehicles are vehicles that can be driven without producing polluting exhaust, and include fully battery electric (often referred to simply as "electric vehicles" or "EVs"), plug-in hybrid electric, and hydrogen fuel cell electric vehicles.

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

Yes 1
No 2
Don't know 9

Q9

Q8 = No

If... Q8 = 2

Imagine you were able to test drive a zero emission vehicle that suited your lifestyle needs, at a location that was convenient for you and 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?

Very interested	1
Somewhat interested	2
Only a little interested	3
Not at all interested.....	4
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

PQ11

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

Q11A

Vehicle 1	
Please specify :.....	77
Don't know	99
	S

Q11B

Vehicle 2	
Please specify :.....	77
Don't know	99
	S

Q11C

Vehicle 3	
Please specify :.....	77
Don't know	99
	S

Q11D

Vehicle 4	
Please specify :.....	77
Don't know	99
	S

Q11E

Vehicle 5	
Please specify :.....	77
Don't know	99
	S

PQ12

In general, how familiar, if at all, are you with each of the following aspects of zero emission vehicles?

Q12A

How the "fueling up" process works when electricity powers a vehicle instead of gas or diesel

Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12B

Availability of makes and models in your area

Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12C

Vehicle safety performance

Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12D

Vehicle maintenance costs

Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12E

Purchase price

Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12F

Costs to charge battery of electric vehicles

Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12G

Environmental impact		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12H

Different levels, or speeds, of vehicle charging equipment		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12I

Potential to charge ("fuel up") battery at your home		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12J

Potential to charge ("fuel up") at your workplace		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12K

Driving range – how far a vehicle can go on a fully charged battery		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12L

Availability of consumer information		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12M

Time required to charge the battery

Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12N

Resale value		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12O

Subsidies for new/used vehicle purchase		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12P

Reliability		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12Q

Battery life expectancy		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12R

Warranty		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12S

Cost of insurance		
Very familiar	1	

Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12T

Towing capacity		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12U

Availability of all-wheel drive		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12V

Winter performance		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q12W

The carbon footprint over a vehicle's lifetime (i.e., manufacture, use and disposal)		
Very familiar	1	
Somewhat familiar.....	2	
Not very familiar	3	
Not familiar at all	4	
Don't know	9	S

Q16

Which of the following statements best describes your interest in purchasing/leasing zero emission vehicles?

I am very interested in a zero emission vehicle and will try to purchase or lease one as my next vehicle	1
I have some interest in a zero emission vehicle and will consider one when purchasing or leasing my next vehicle	2
I have some interest in a zero emission vehicle but I cannot find a way to test drive one in my area	3
I have some interest in a zero emission vehicle, but today's options do not meet my driving needs	4
I have no interest in a zero emission vehicle	5

I don't know enough about zero emission vehicles to answer 9

PQ17

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

Q17A

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

Q17B

Zero emission vehicles are facing supply chain issues which is causing long waitlists to purchase or lease

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

Q17C

Gas and diesel-powered vehicles are facing supply chain issues which is causing long waitlists to purchase or lease

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

Q17D

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

Q17E

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

Q17F

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

Q17G

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

Q17H

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

Q17I

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

Q17J

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

Q17K

I can charge a zero emission vehicle at my home or workplace	
Strongly agree.....	1
Somewhat agree.....	2
Neither agree nor disagree.....	3
Somewhat disagree.....	4
Strongly disagree.....	5
I Don't know.....	9
	S

Q17L

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

Q17M

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

Q17N

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

Q17O

Zero emission vehicles perform as well, if not better, 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

Q17P

A zero emission vehicle would save me money	
Strongly agree.....	1
Somewhat agree.....	2

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

Q17Q

Zero emission vehicles have a 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

Q17R

If too many people purchase zero emission vehicles, it will put too much pressure on the electric grid		
Strongly agree.....	1	
Somewhat agree.....	2	
Neither agree nor disagree.....	3	
Somewhat disagree	4	
Strongly disagree	5	
I Don't know.....	9	S

Q17S

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

Q17T

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

Q17U

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

Q17V

Zero emissions 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

Q17W

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

Q17X

The total carbon footprint of zero-emission vehicles over their lifetime (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

Q18

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	

PQ19

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

Q19C

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

Q19D

Greater selection of makes and models than today		
A great extent	1	
Some extent.....	2	
Little extent.....	3	
No extent whatsoever	4	
Don't know	9	S

Q19E

Greater general understanding of driving, charging and maintenance		
A great extent	1	
Some extent.....	2	
Little extent.....	3	
No extent whatsoever	4	
Don't know	9	S

Q19F

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

Q19G

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

Q19H

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

Q19I

Rebates/incentives to cover the price difference between zero emission vehicles and gas or diesel-powered vehicles		
A great extent	1	
Some extent.....	2	
Little extent.....	3	

No extent whatsoever	4	
Don't know	9	S

Q19J

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

Q19K

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

Q19L

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

Q19M

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

Q19N

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

Q19O

Knowing I am doing my part to lower greenhouse gas emissions		
A great extent	1	
Some extent.....	2	
Little extent.....	3	
No extent whatsoever	4	

Don't know 9 S

Q19P

Knowing the vehicle possesses the latest technological advances
A great extent 1
Some extent..... 2
Little extent..... 3
No extent whatsoever 4
Don't know 9 S

Q19Q

Knowing the vehicles are as safe or safer than gas and diesel vehicles
A great extent 1
Some extent..... 2
Little extent..... 3
No extent whatsoever 4
Don't know 9 S

Q19R

Proven reliability in all Canadian climates
A great extent 1
Some extent..... 2
Little extent..... 3
No extent whatsoever 4
Don't know 9 S

Q19S

Ability to test drive any type of zero emission vehicle
A great extent 1
Some extent..... 2
Little extent..... 3
No extent whatsoever 4
Don't know 9 S

Q19T

Ability to test drive the type of zero emission vehicle that fits my needs and lifestyle
A great extent 1
Some extent..... 2
Little extent..... 3
No extent whatsoever 4
Don't know 9 S

Q19U

If I knew the total carbon footprint over its lifetime (manufacturing, use and disposal) were lower than a comparable gas vehicle
A great extent 1
Some extent..... 2
Little extent..... 3
No extent whatsoever 4

Don't know 9 S

Q19V

Other, Please specify :

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

PQ20

Thinking of making your next vehicle purchase, rate the extent to which these events below would make you more or less likely to purchase or lease a zero-emission vehicle.

Q20A

Gas prices remain at current levels

A lot more likely..... 1
A little more likely..... 2
Would not impact my decision..... 3
A little less likely 4
A lot less likely 5
Don't know 9 S

Q20B

Gas prices rise above current levels

A lot more likely..... 1
A little more likely..... 2
Would not impact my decision..... 3
A little less likely 4
A lot less likely 5
Don't know 9 S

Q20C

Gas prices drop to 2020 levels

A lot more likely..... 1
A little more likely..... 2
Would not impact my decision..... 3
A little less likely 4
A lot less likely 5
Don't know 9 S

Q20D

There is no waiting list to obtain my desired model of zero emission vehicle; I can purchase the vehicle and begin driving it immediately

A lot more likely..... 1
A little more likely..... 2
Would not impact my decision..... 3
A little less likely 4
A lot less likely 5

Don't know 9 S

Q20E

There is a 1-month waiting list to obtain my desired model of zero emission vehicle
A lot more likely..... 1
A little more likely..... 2
Would not impact my decision..... 3
A little less likely 4
A lot less likely 5
Don't know 9 S

Q20F

There is a 3-month waiting list to obtain my desired model of zero emission vehicle
A lot more likely..... 1
A little more likely..... 2
Would not impact my decision..... 3
A little less likely 4
A lot less likely 5
Don't know 9 S

Q20G

There is a 6-month waiting list to obtain my desired model of zero emission vehicle
A lot more likely..... 1
A little more likely..... 2
Would not impact my decision..... 3
A little less likely 4
A lot less likely 5
Don't know 9 S

Q20H

There is a 12-month waiting list to obtain my desired model of zero emission vehicle
A lot more likely..... 1
A little more likely..... 2
Would not impact my decision..... 3
A little less likely 4
A lot less likely 5
Don't know 9 S

Q20I

An accessible electric vehicle charger is installed at my workplace
A lot more likely..... 1
A little more likely..... 2
Would not impact my decision..... 3
A little less likely 4
A lot less likely 5
Don't know 9 S

Q20J

Zero-emission vehicles become less damaging to the environment through their full lifecycle, including

manufacturing and disposal	
A lot more likely.....	1
A little more likely.....	2
Would not impact my decision.....	3
A little less likely	4
A lot less likely	5
Don't know	9 S

Q20K

A rebate is offered in my region for purchasing and installing a home charger for electric vehicles

A lot more likely.....	1
A little more likely.....	2
Would not impact my decision.....	3
A little less likely	4
A lot less likely	5
Don't know	9 S

Q20L

More public fast chargers are installed along travel corridors between towns and cities in my region

A lot more likely.....	1
A little more likely.....	2
Would not impact my decision.....	3
A little less likely	4
A lot less likely	5
Don't know	9 S

Q20M

A friend or family member purchases or leases a zero emission vehicle and assures me that they are very satisfied with the vehicle

A lot more likely.....	1
A little more likely.....	2
Would not impact my decision.....	3
A little less likely	4
A lot less likely	5
Don't know	9 S

Q21

Q19I, Rebates/incentives, rated little - great extent

If... Q19I = 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

Q22

Q21 = Yes

If... Q19I = 1,2,3 and Q21 = 1

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

Yes	1
No	2
Don't know	9

Q23

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

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

Screened out

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