Detailed results

abacus data

Perceptions of Electric Vehicles (EV)

Conducted for Electric Mobility Canada (EMC)

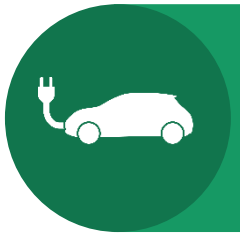
September 2023

Methodology

- Sample size: 1,500 adult Canadians.
- Survey field dates: September 07 to 11, 2023.
- The data was weighted by age, gender, education and region.
- Totals may not add up to 100 due to rounding.
- No margin of error can be associated with a non-probability sample. However, for comparative purposes, a probability sample for the current study would have a margin of error of ±2.53%, 19 times out of 20
- Throughout the report % indicates a significantly higher proportion than the % in the same segment

Key Insights

Key Findings



CURRENT EV OWNERS ARE SIGNIFICANTLY LIKELY TO PURCAHSE ANOTHER EV

The findings indicate that 14% of Canadians currently own an electric vehicle (EV). Among this group, a significant 88% expressed their intention to choose an EV for their next vehicle purchase. The primary motivating factors behind this decision are centered around the financial advantages of EV ownership, with 41% highlighting cost savings, followed closely by 39% emphasizing the environmental benefits of EVs, and 32% appreciating the advanced technology featured in new EV models. It is crucial to underscore the recognition of cost savings as the predominant factor driving repeat EV purchases, given that misconceptions about the expenses associated with EVs persist among those who do not yet own one.

INTENT TO PURCHASE AN ELECTRIC VEHICLES IMPROVES WITH EDUCATION

Among those without an EV, 43% initially expressed interest in purchasing an electric or plug-in hybrid vehicle in the future, while 57% leaned toward gas vehicles. Remarkably, after receiving detailed information on the cost and performance of electric vehicles, 63% of Canadians (who do not currently own an EV) showed a strong inclination to buy an EV, a substantial 20-point increase from initial intent. This underscores the impactful role of educating Canadians about EVs compared to gas vehicles. Additionally, 54% indicated that the information provided resulted in them viewing EVs more favourably than gas vehicles.

OPPORTUNITY TO INCREASE KNOWLEDGE OF ELECTRIC VEHICLES

A slight majority of Canadians, comprising 53%, described their knowledge of electric vehicles as limited. This perception is most pronounced among older demographics, with 59% of individuals aged 45 to 59 and 57% of those aged 60 and above expressing a greater likelihood of having limited knowledge compared to their younger counterparts (18-29; 44%). In contrast, only 13% of Canadians believe they possess a strong understanding of EVs. This highlights a significant opportunity to enhance educational efforts aimed at informing Canadians about the advantages of electric vehicles in both the short and long term.

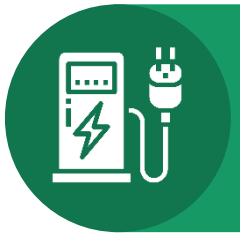
Key Findings

UPFRONT COSTS OF OWNING AN ELECTRIC VEHICLE

The findings underscore notable knowledge gaps among Canadians concerning the expenses associated with EVs. Many are uninformed about crucial government incentives, aimed at reducing EV prices and enhancing their competitiveness, which in turn alleviates upfront costs, a significant hurdle. Moreover, Canadians tend to underestimate the availability of affordable EVs, with only 9% aware of the more than 40 EV models priced below the average new vehicle cost with federal rebates, suggesting that many do not believe there's a wide selection of EVs within a comparable price range to gas vehicles. Educating individuals to dispel these misconceptions and emphasize the financial advantages of EVs is imperative.

CONCERNS RELATING TO BATTERY LONGEVITY AND VEHICLE RANGE

A slight majority of Canadians (53%) lacked confidence in the reliability/longevity of EV batteries. Further, only 1 in 10 believed that an EV battery will last the vehicle's lifespan, while most expect a replacement within 7 to 10 years. When considering range, only 1 in 4 Canadians correctly identified the average EV range (400-500km), while 68% were confident in their ability to charge an EV. However, only 25% are aware of the 20,000+ public chargers available in Canada, with 56% assuming there are less than 10,000. These findings collectively highlight the widespread misinformation among Canadians concerning both the reliability and longevity of EV batteries and the prevalence of charging stations across the country.



KNOWLEDGE OF THE COSTS RELATED TO CHARGING AN EV

The findings indicate that less than 1 in 4 Canadians (23%) are aware of the expenses linked to charging an EV for a 100km drive, which can range from 50 cents to $4, compared to roughly $12 for fueling a gasoline-powered vehicle. Moreover, a significant 55% mistakenly believe that it would cost more than $4 to charge an EV for the same distance, while 21% expressed uncertainty about the cost. This situation underscores an opportunity to better educate Canadians about the charging costs associated with electric vehicles as many are uninformed about this aspect, especially considering that cost savings are a primary motivator for choosing an EV.

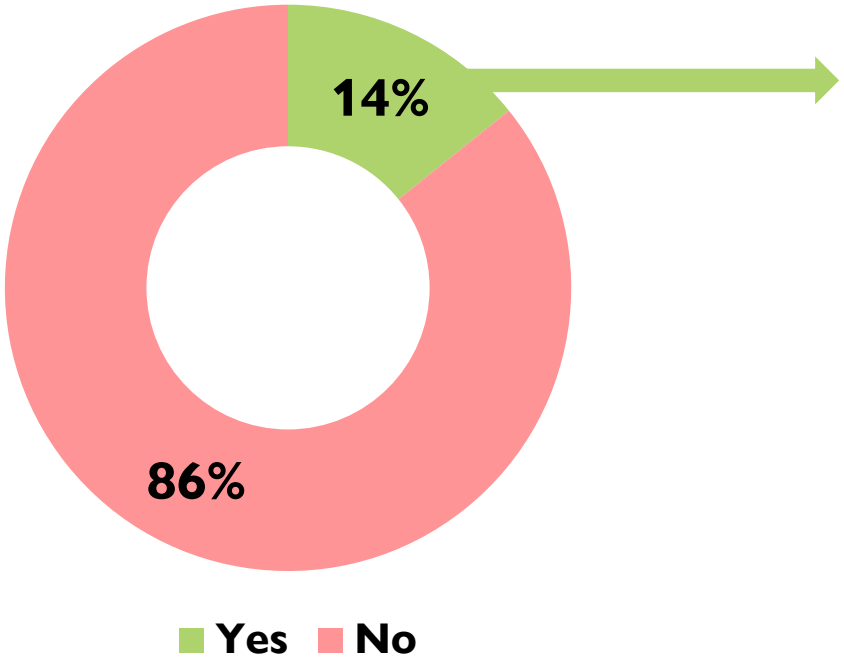
Vehicle Ownership

Do you own an electric vehicle or plug-in hybrid vehicle?
Will your next vehicle be electric or plug-in hybrid?

EV Ownership

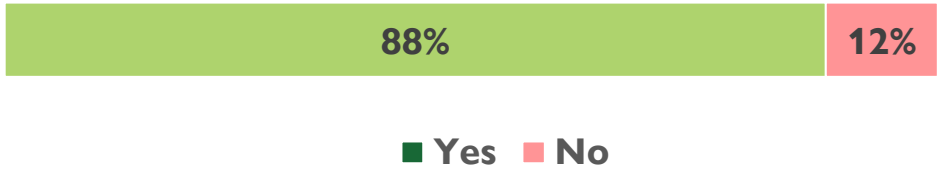
Do You Currently Own an Electric or Plug-In Hybrid?

Base: All (n=1,500)



Will Next Vehicle Be Electric or Plug-In Hybrid?

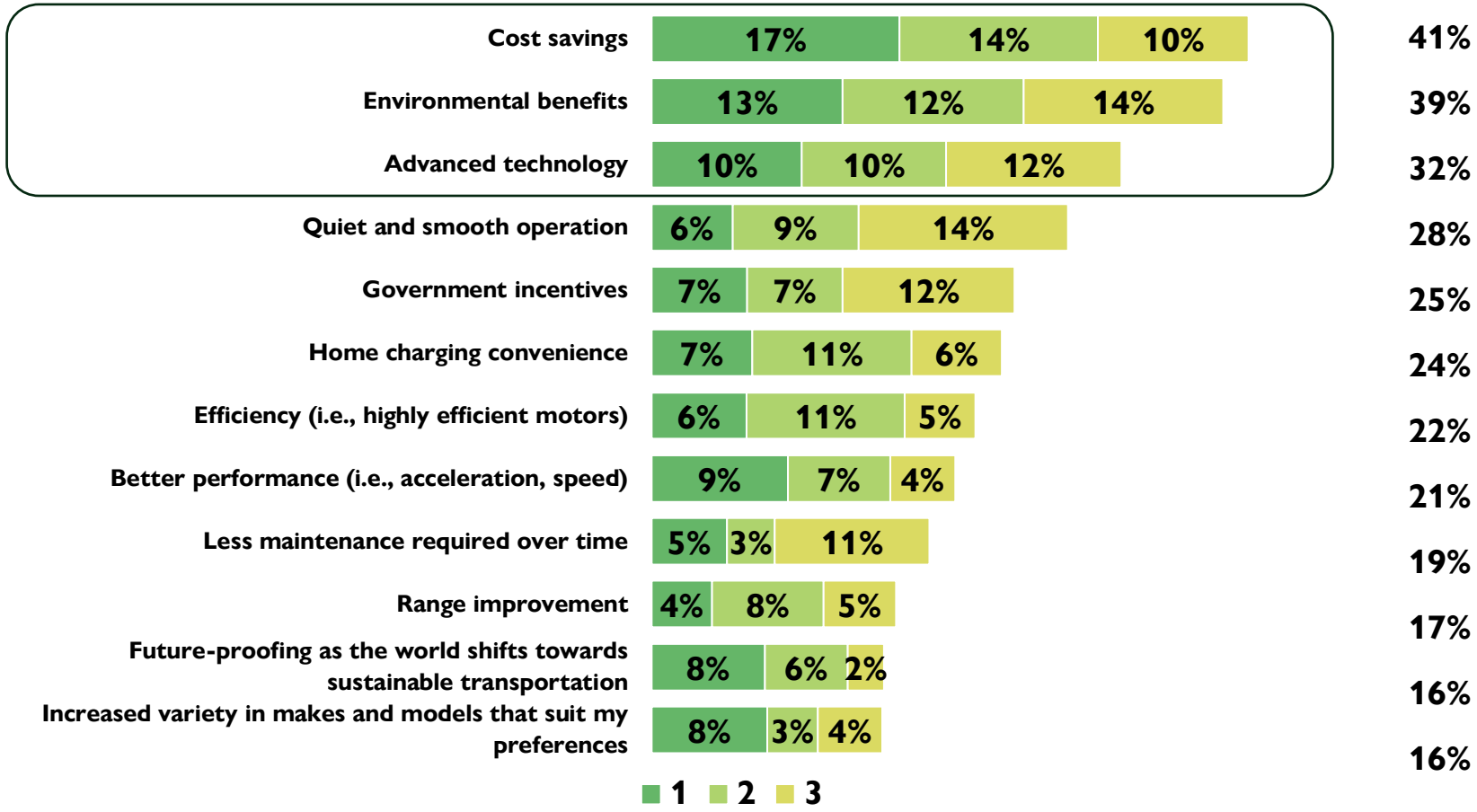
Base: Those who own an electric or plug-in hybrid vehicle (n=201)



What are the main reasons that you would consider purchasing an electric vehicle again? Please rank the top 3 reasons

Top reasons to consider purchasing an EV again

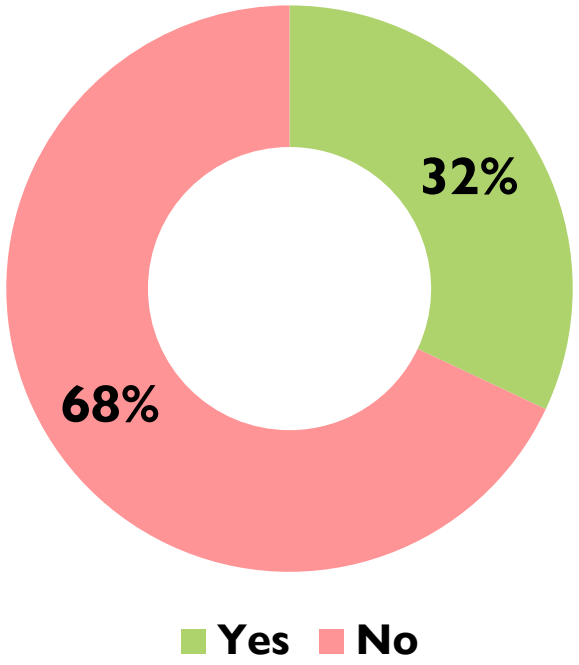
Among current EV owners



Base: Those who will purchase an electric or plug-in hybrid vehicle (n=177)

Do you own a gas or non-plug-in hybrid vehicle?

Gas Vehicle Ownership

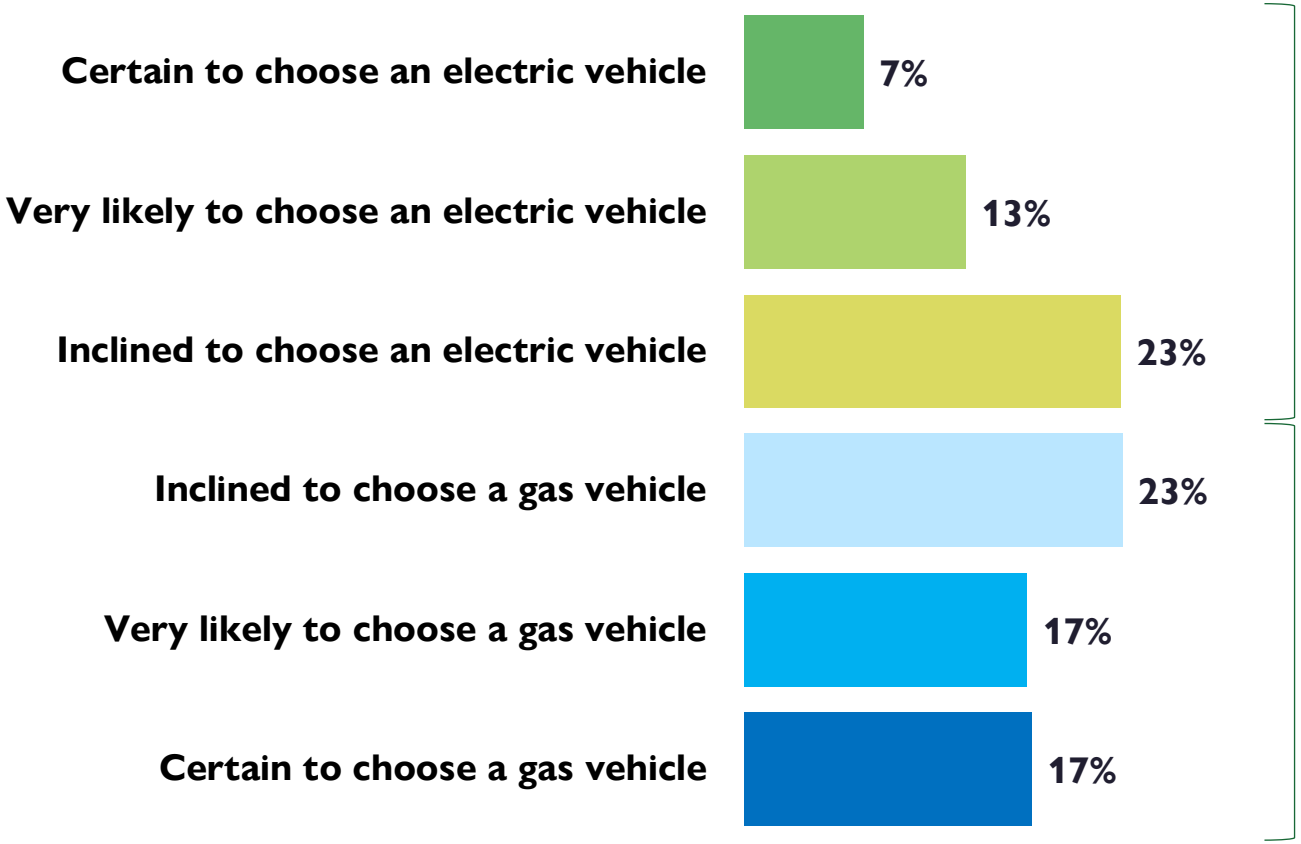


Base: All (n=1,500)

When thinking about your next vehicle purchase, which will you choose?

Thinking about your next vehicle, would you be…

Among non-EV owners



43%
Inclined to choose an EV

Urban	Suburban	Rural
47%	43%	33%

57%
Inclined to choose a gas vehicle

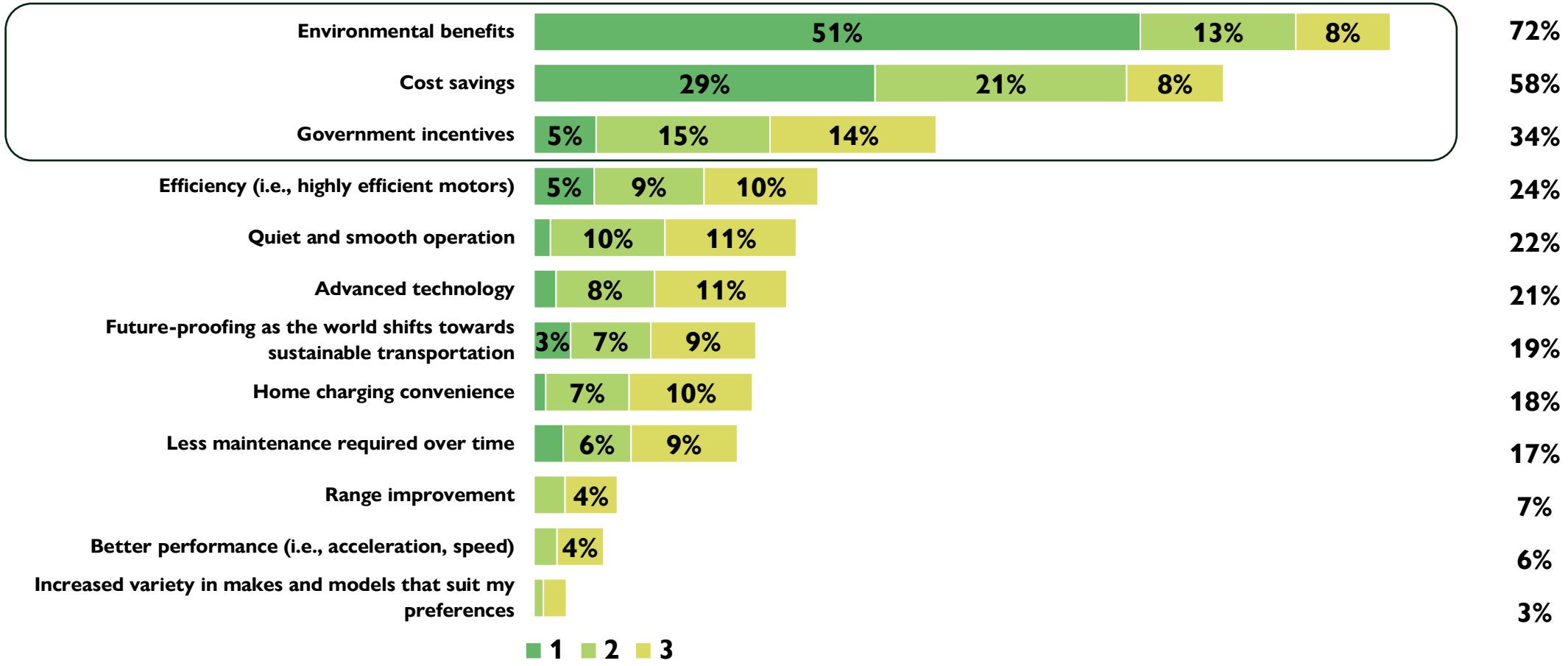
Urban	Suburban	Rural
53%	57%	67%

Base: Those who do not own an electric or plug-in hybrid vehicle (n=1,299)

What are the main reasons that you would consider purchasing an electric vehicle? Please rank the top 3 reasons

Top reasons to consider choosing an EV

Among non-EV owners



Base: Those who are inclined to choose an electric vehicle (n=581)
Values less than 3% not shown.

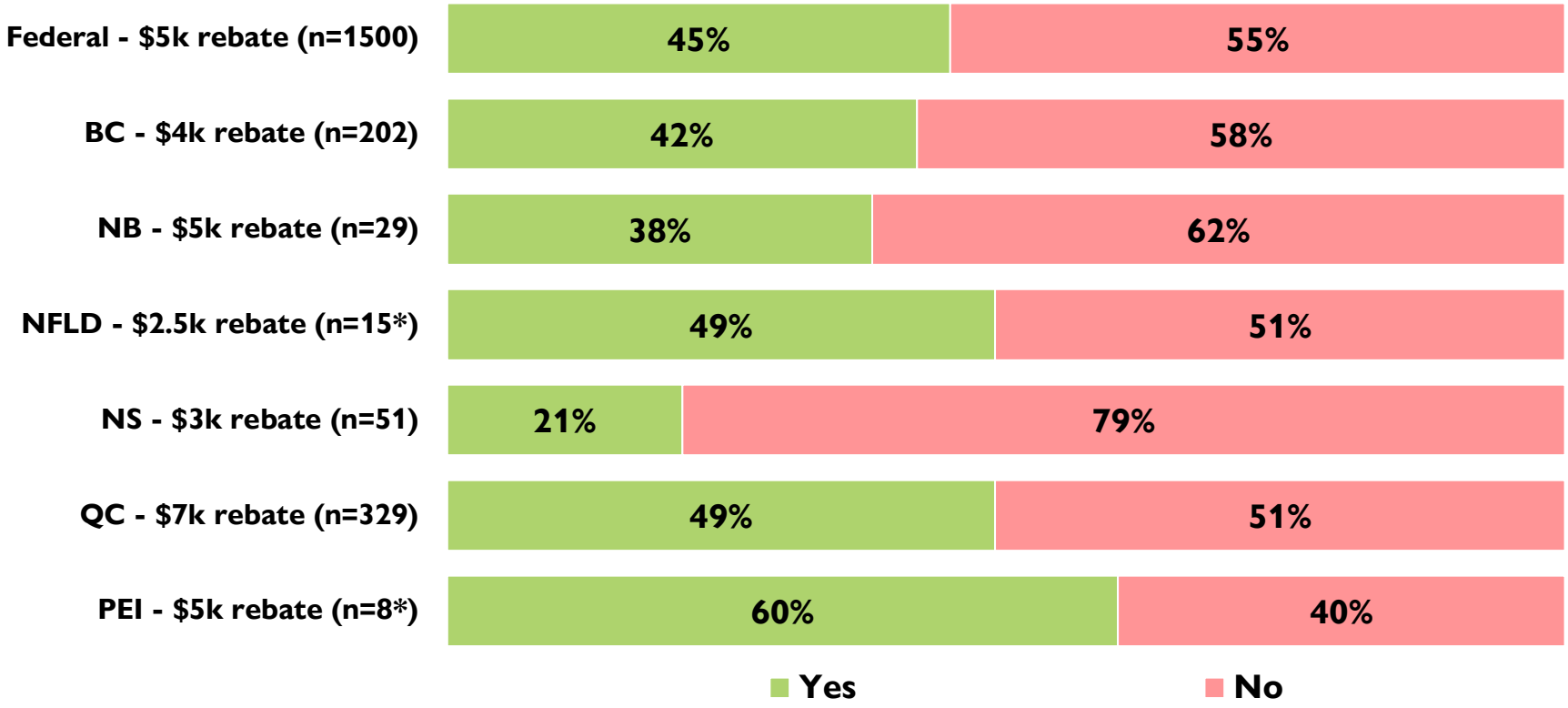
Perceptions of Electric Vehicles

Perceptions of Electric Vehicles

Federal and Provincial Rebates

Are you aware of the federal government rebate of up to $5,000 for purchasing an electric vehicle?

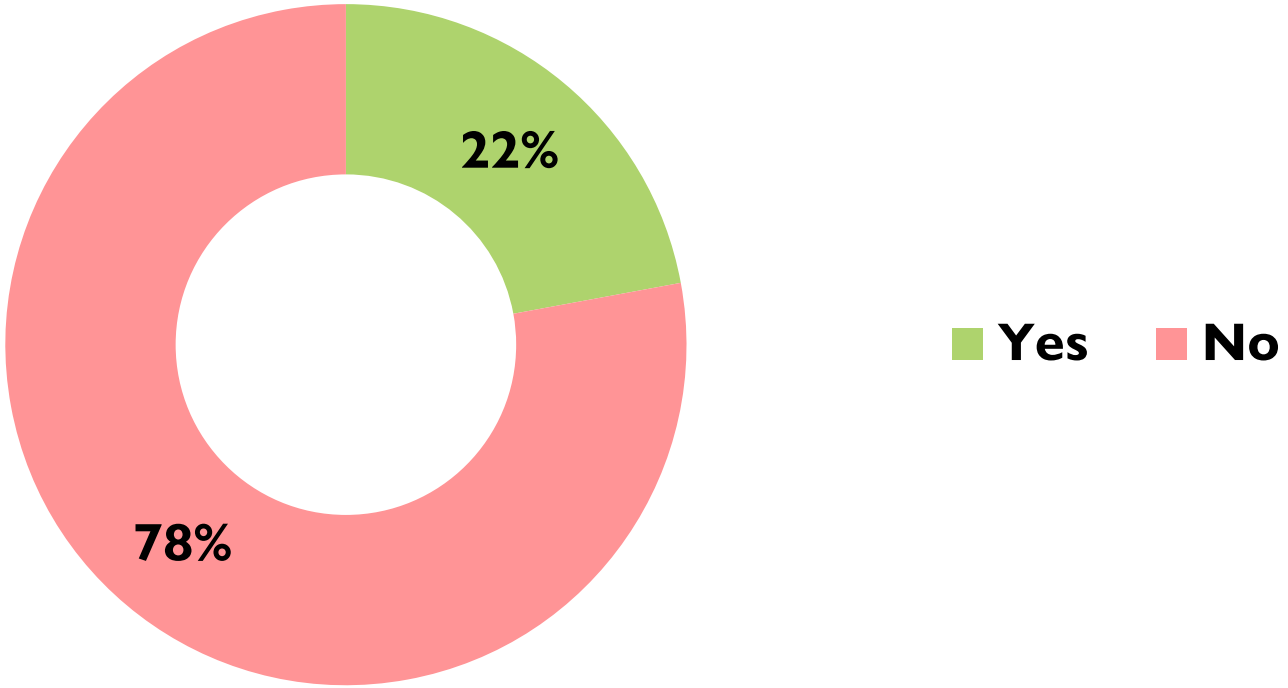
Aware of Federal and Provincial Rebates for Purchasing an EV



Note: * denotes small base size; interpret with caution.

Are you aware that you may be eligible for a federal tax deduction specifically for the purchase of an electric vehicle if you are self-employed or own a company?

Aware of tax deductions for purchasing an EV if you are self-employed or own a company?



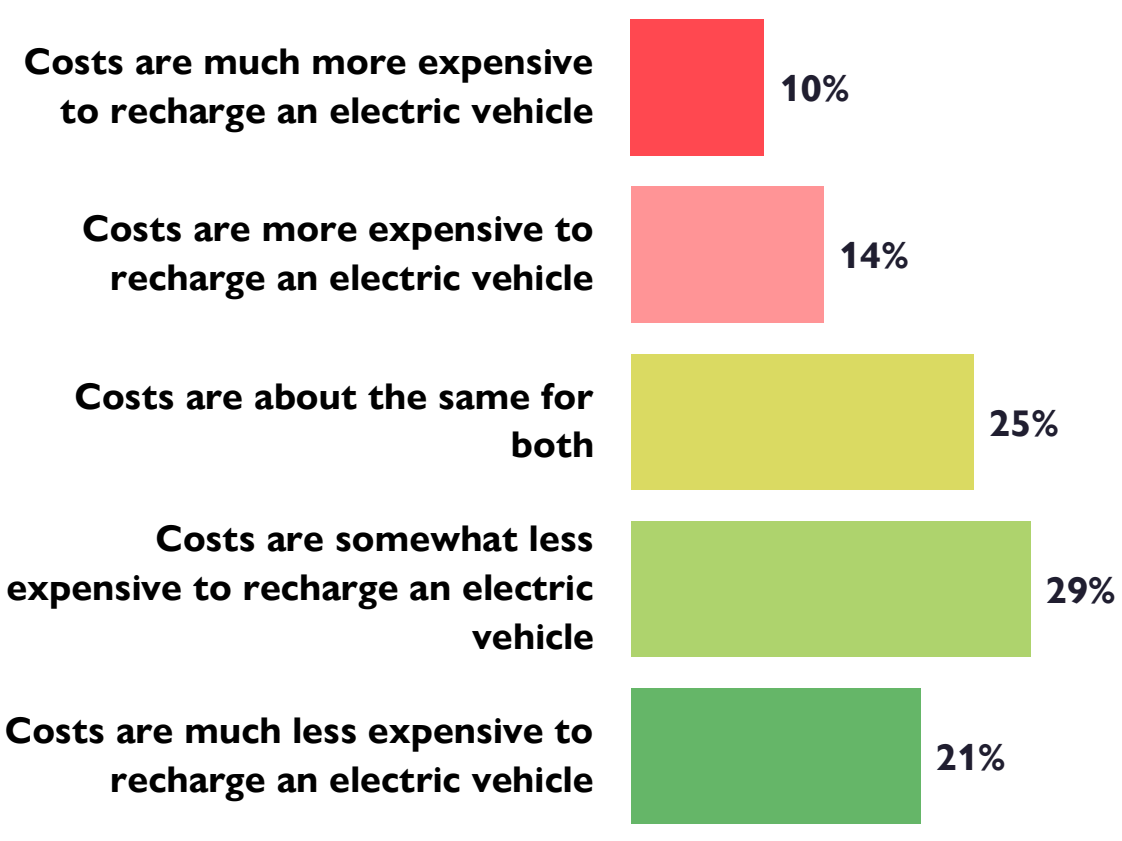
[all] Base n=1,500

Perceptions of Electric Vehicles

Perceived Costs

Do you believe that charging an electric vehicle is more or less expensive than filling up a gas vehicle?

Cost of charging an EV



24%
More expensive

BC	AB	SK/MB	ON	QC	ATL
15%	35%	22%	28%	18%	22%

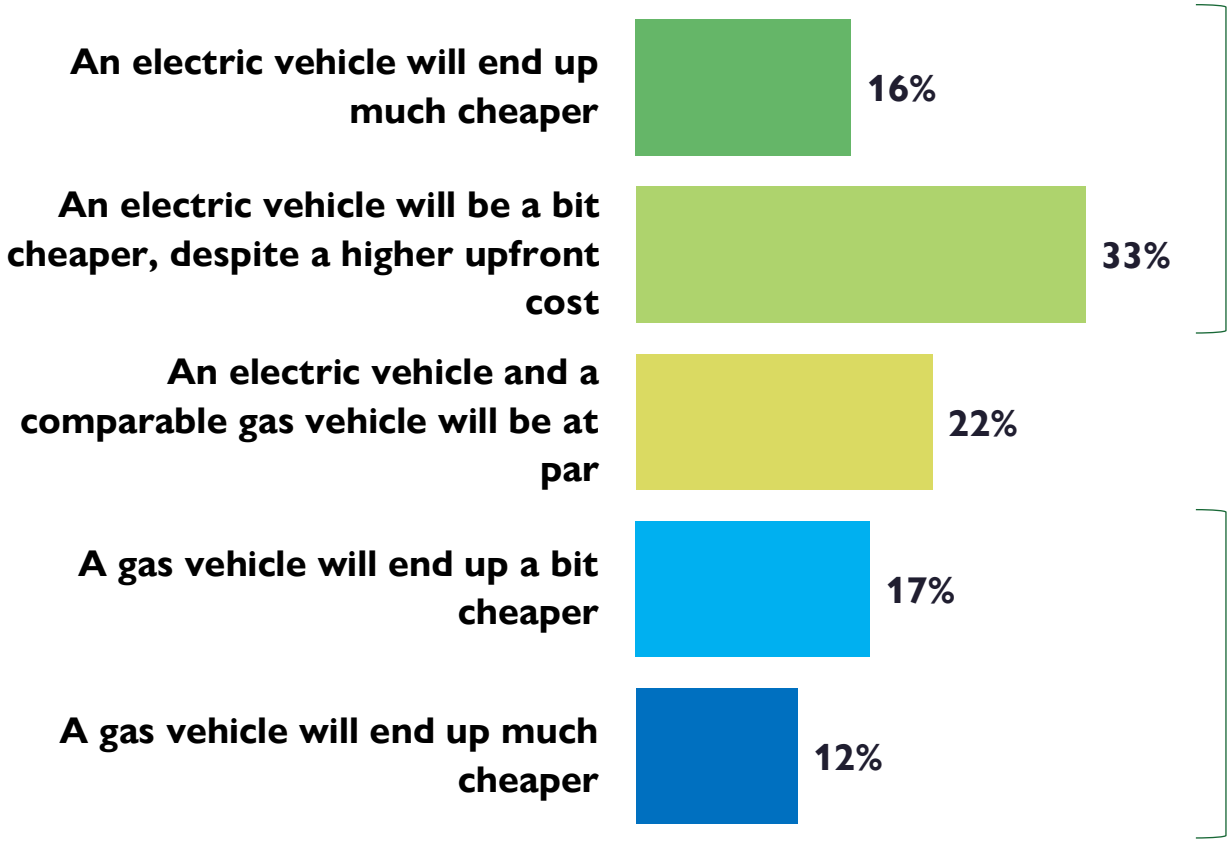
51%
Less expensive

BC	AB	SK/MB	ON	QC	ATL
59%	42%	46%	47%	59%	47%

[all] Base n=1,500

Which of the following statements is true regarding the total cost of ownership when purchasing a new vehicle?

Total cost of ownership when purchasing a new vehicle



49%
Electric vehicle cheaper

BC	AB	SK/MB	ON	QC	ATL
57%	38%	34%	48%	57%	43%

29%
Gas vehicle cheaper

BC	AB	SK/MB	ON	QC	ATL
26%	40%	35%	30%	21%	33%

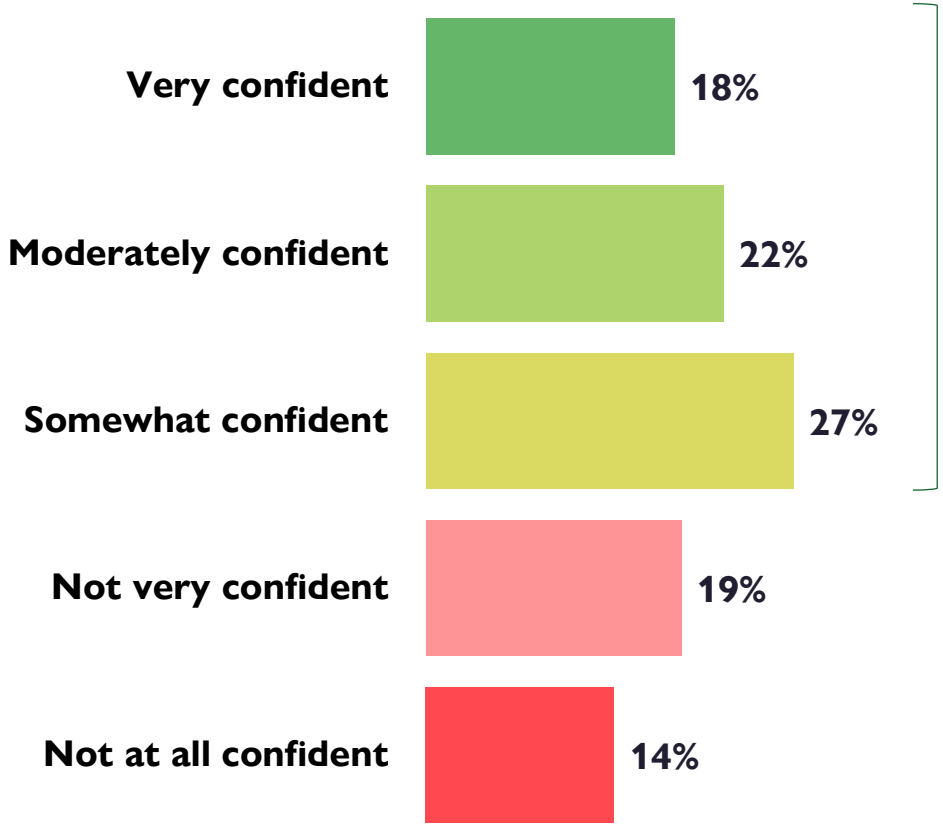
[all] Base n=1,500

Perceptions of Electric Vehicles

Performance and Charging

With approximately 80% of charging occurring at home, how confident are you that you will be able to charge your EV when needed?

Confidence in charging your EV when needed



67%
Confident

BC	AB	SK/MB	ON	QC	ATL
68%	59%	65%	67%	75%	59%

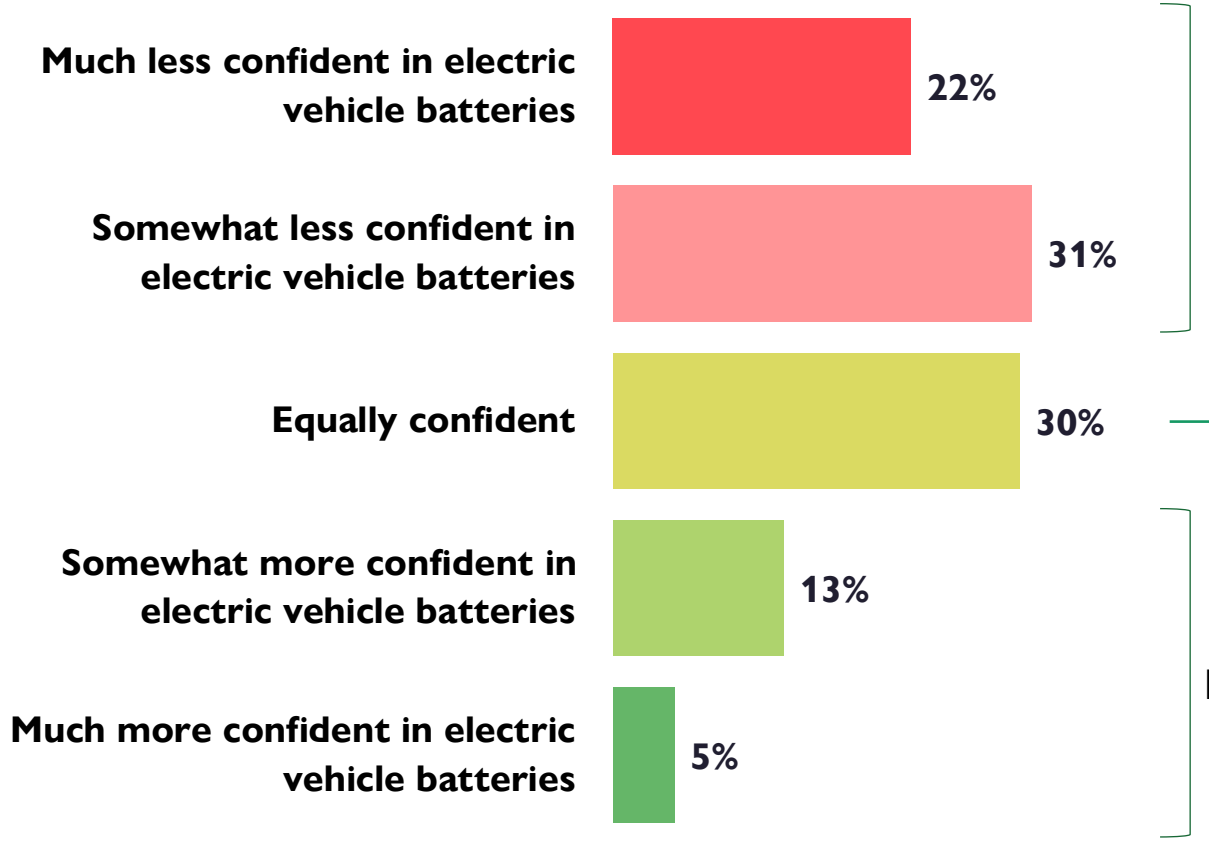
18 – 29	30 – 44	45 – 59	60+
81%	74%	63%	56%

Urban	Suburban	Rural
68%	71%	57%

[all] Base n=1,500

How confident are you in the reliability and longevity of electric vehicle batteries?

Confidence in reliability and longevity of EV batteries



53%
Less confident

18 – 29	30 – 44	45 – 59	60+
47%	47%	59%	56%

18 – 29	30 – 44	45 – 59	60+
39%	34%	27%	25%

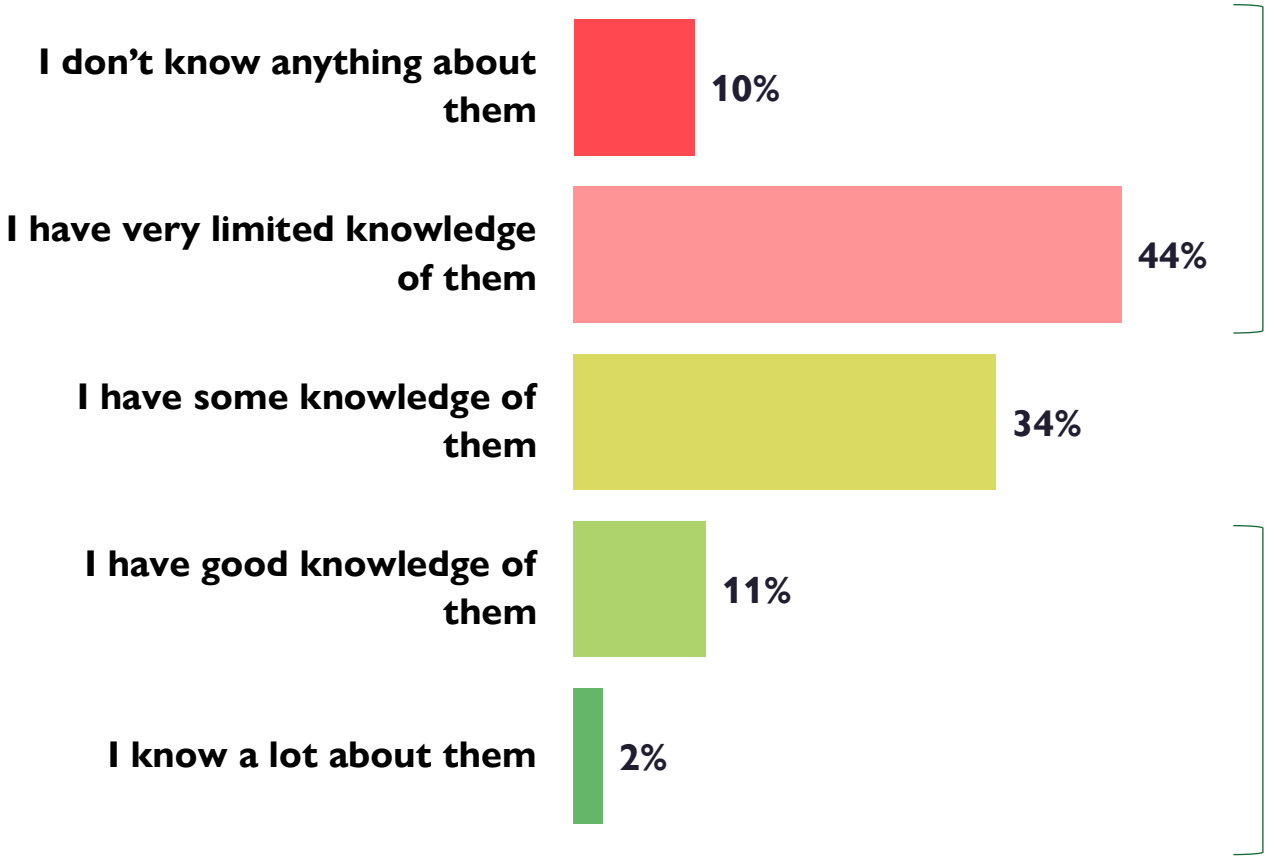
17%
More confident

[all] Base n=1,500

Myth Testing

In your opinion, how knowledgeable are you about electric vehicles?

Knowledge of EVs



53%
Limited knowledge

18 – 29	30 – 44	45 – 59	60+
44%	51%	59%	57%

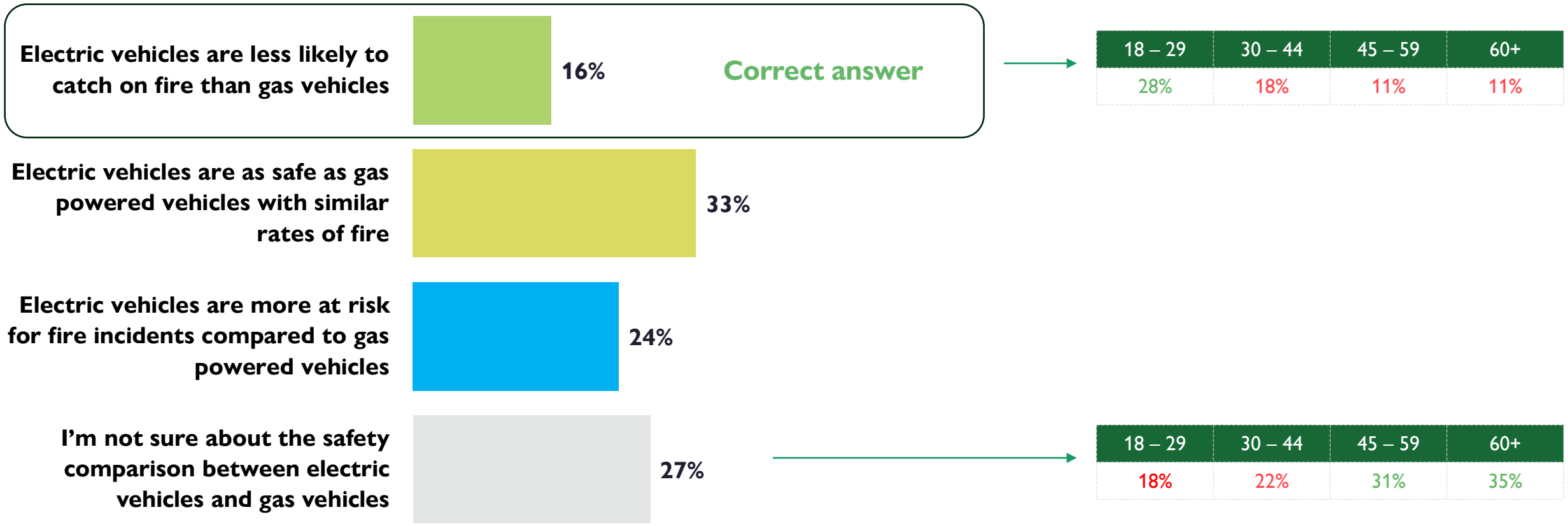
Male	Female
44%	63%

13%
In-depth understanding

[all] Base n=1,500

When comparing electric vehicles to gas vehicles, which of the statements is true regarding the risk of fire incidents?

Risk of fire incidents in EVs



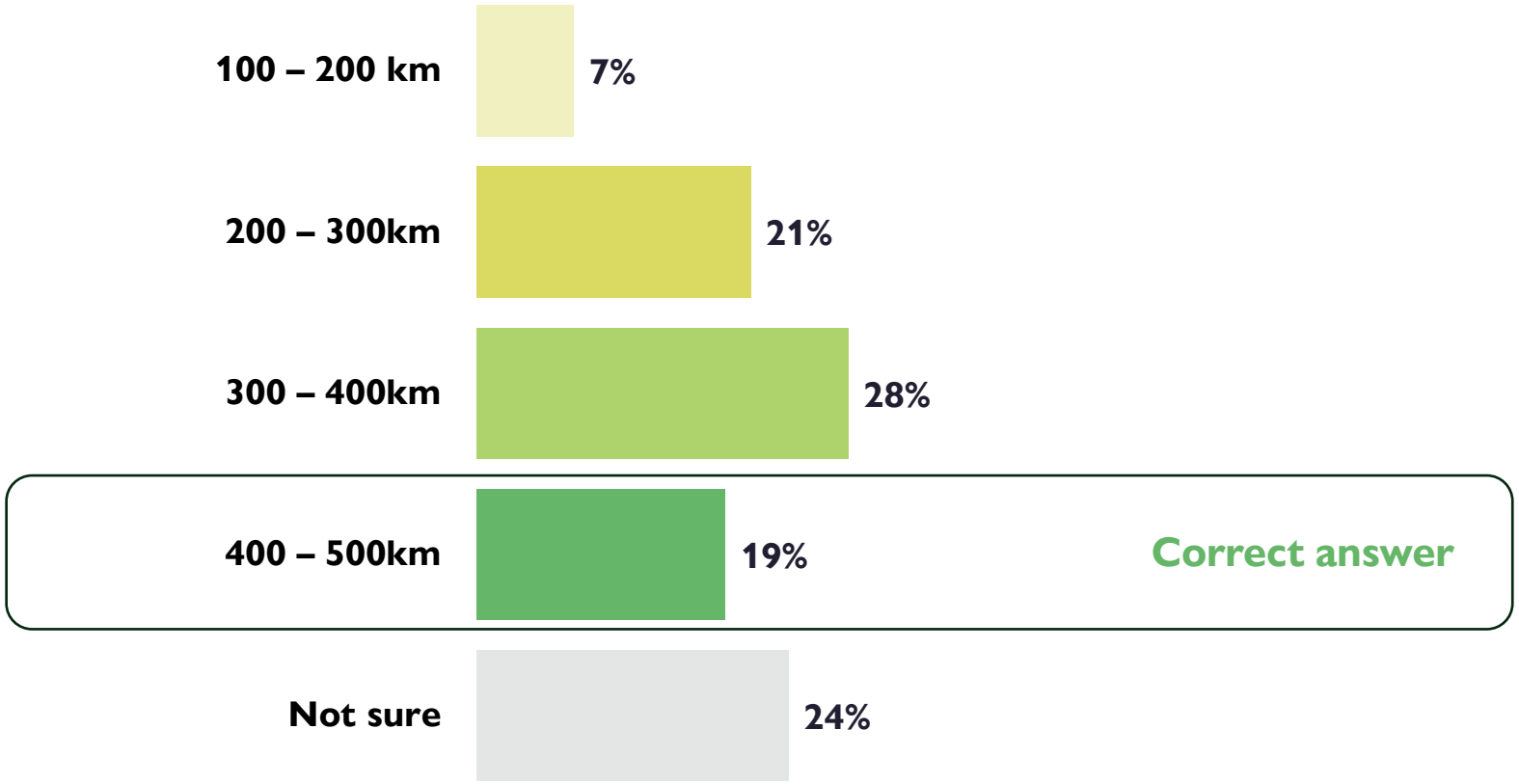
18 – 29	30 – 44	45 – 59	60+
28%	18%	11%	11%

18 – 29	30 – 44	45 – 59	60+
18%	22%	31%	35%

[all] Base n=1,500

What is the average range of most new electric vehicles?

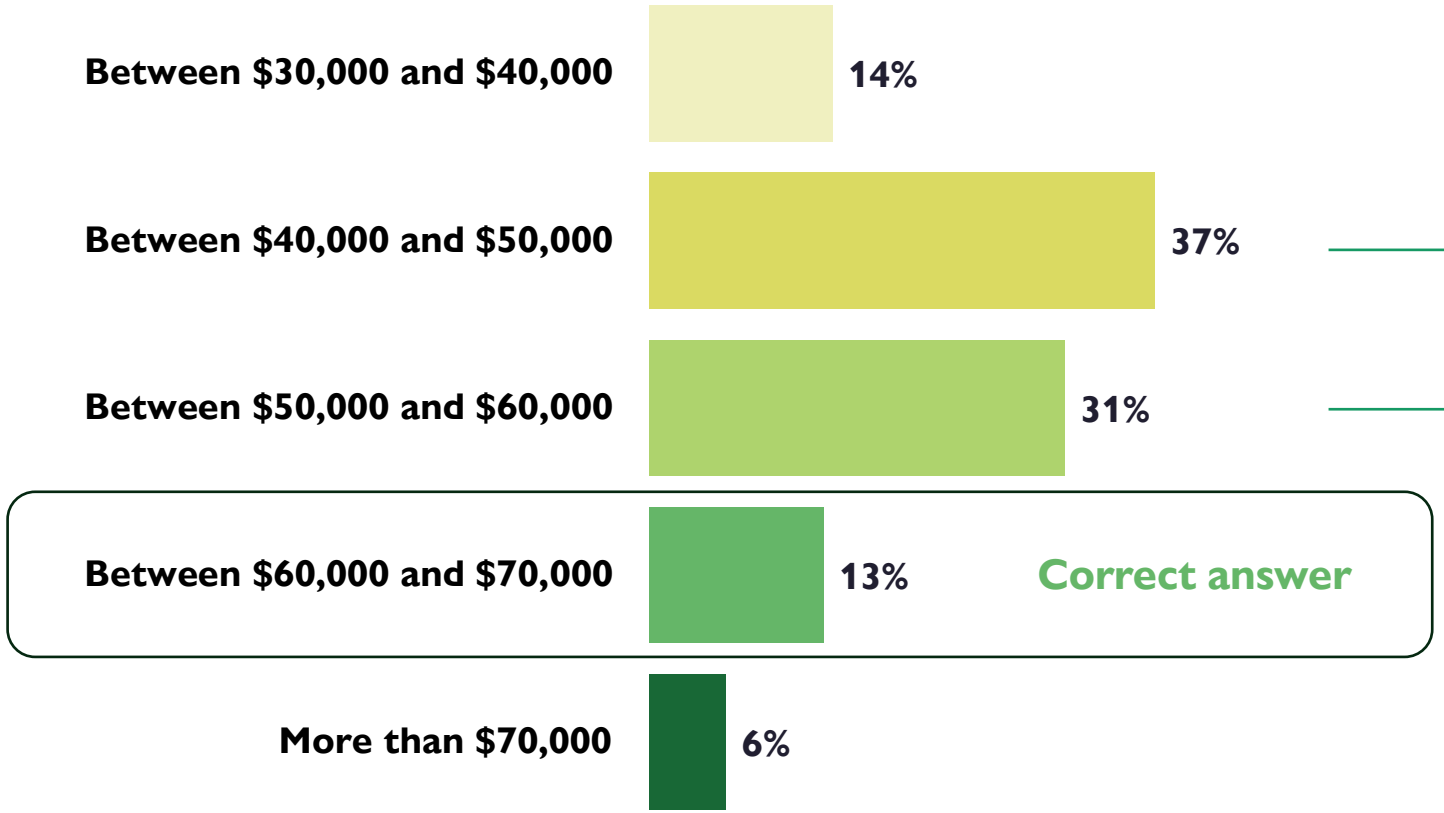
Average range of new EVs



[all] Base n=1,500

In June 2023, what was the average purchase price for a new passenger vehicle (e g , car, SUV, pickup truck, minivan) in Canada, according to Auto Trader?

Average purchase price for a new passenger vehicle in Canada



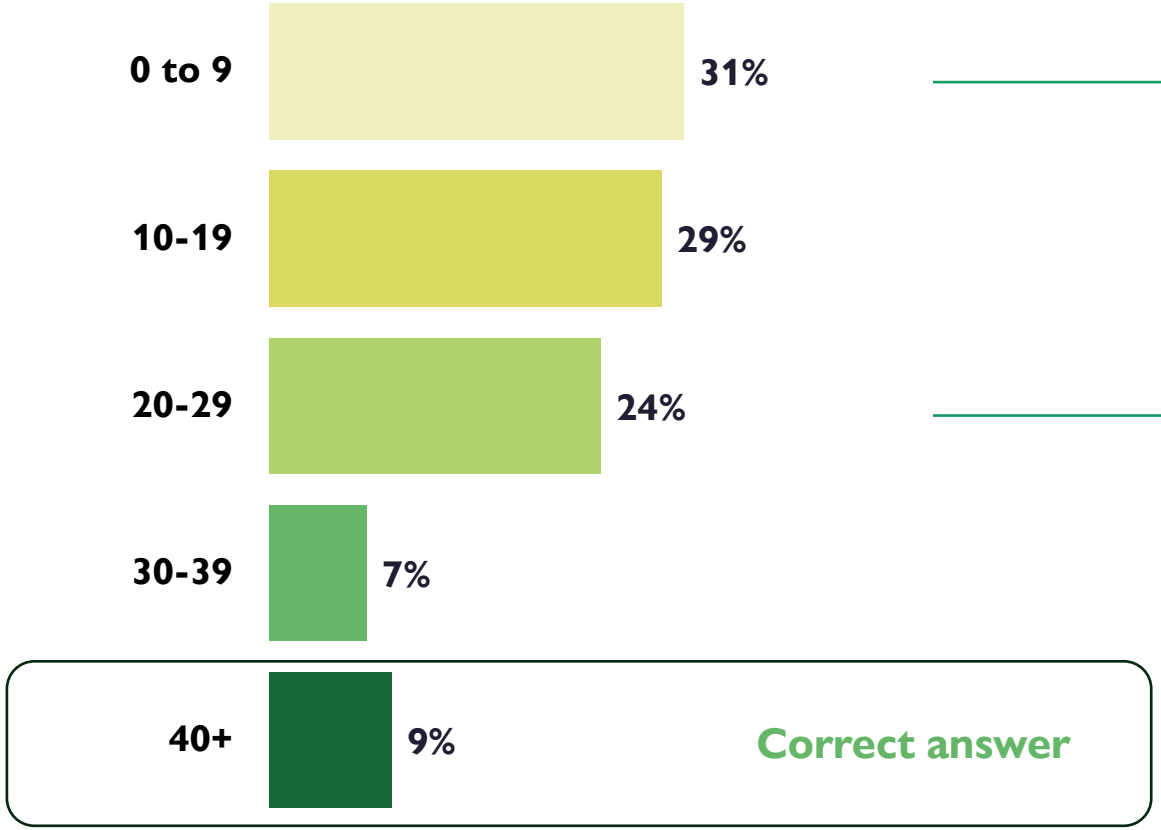
BC	AB	SK/MB	ON	QC	ATL
32%	28%	38%	40%	37%	49%

BC	AB	SK/MB	ON	QC	ATL
37%	33%	30%	27%	36%	20%

[all] Base n=1,500

In 2023, how many new electric and plug-in hybrid vehicle models are available below the average selling price of a new vehicle in Canada, when including the federal rebate?

Number of EV models available below the average purchase price of a new passenger vehicle in Canada



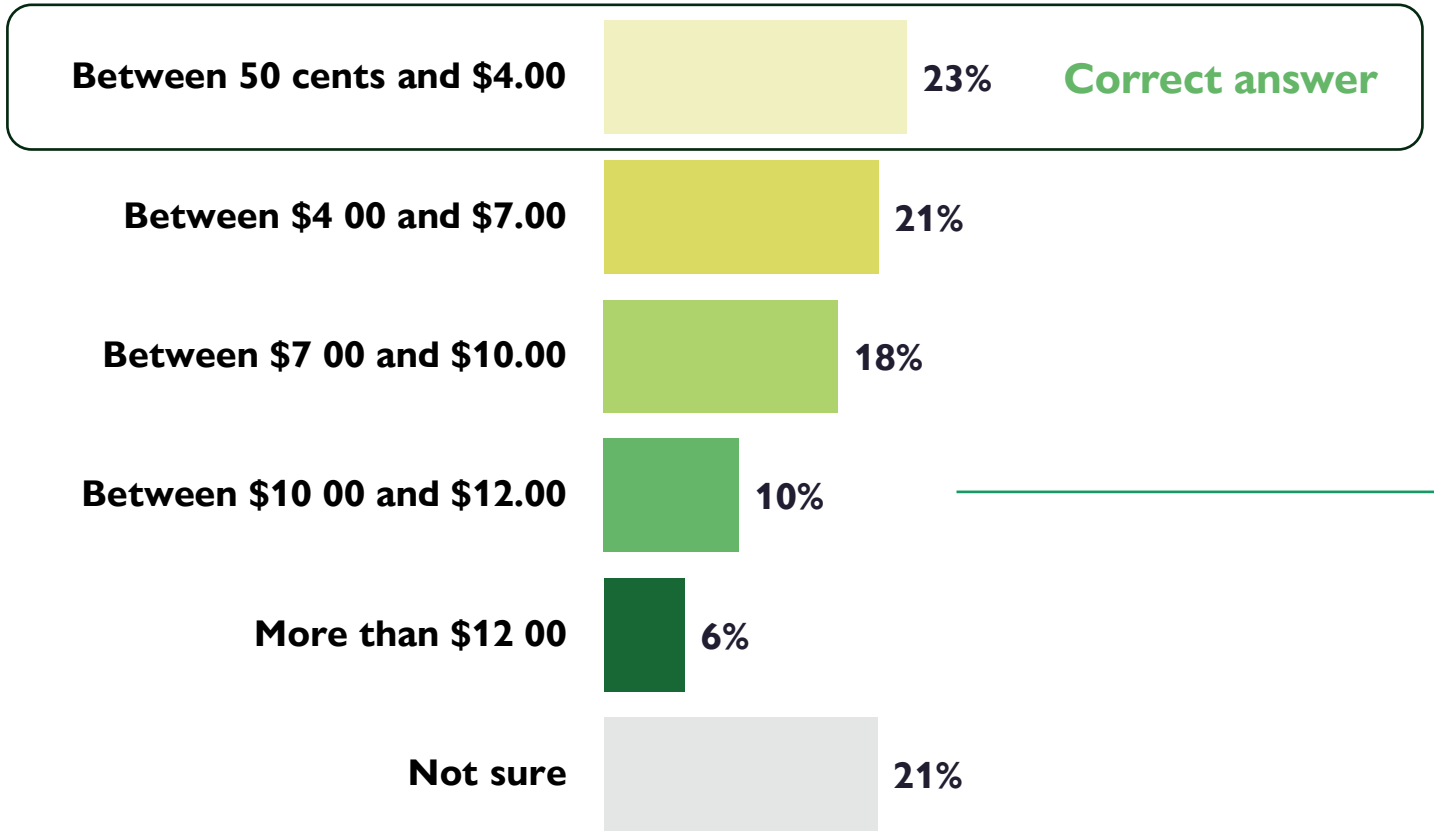
18 – 29	30 – 44	45 – 59	60+
21%	22%	34%	40%

18 – 29	30 – 44	45 – 59	60+
36%	25%	23%	18%

[all] Base n=1,500

At $1 50/L, a gas car that does 8L/100km will cost approximately $12 to drive 100km When charging at home, how much will a comparable electric car cost to drive 100km in any of the 10 provinces?

Cost to drive 100km in an EV



BC	AB	SK/MB	ON	QC	ATL
21%	15%	27%	20%	35%	21%

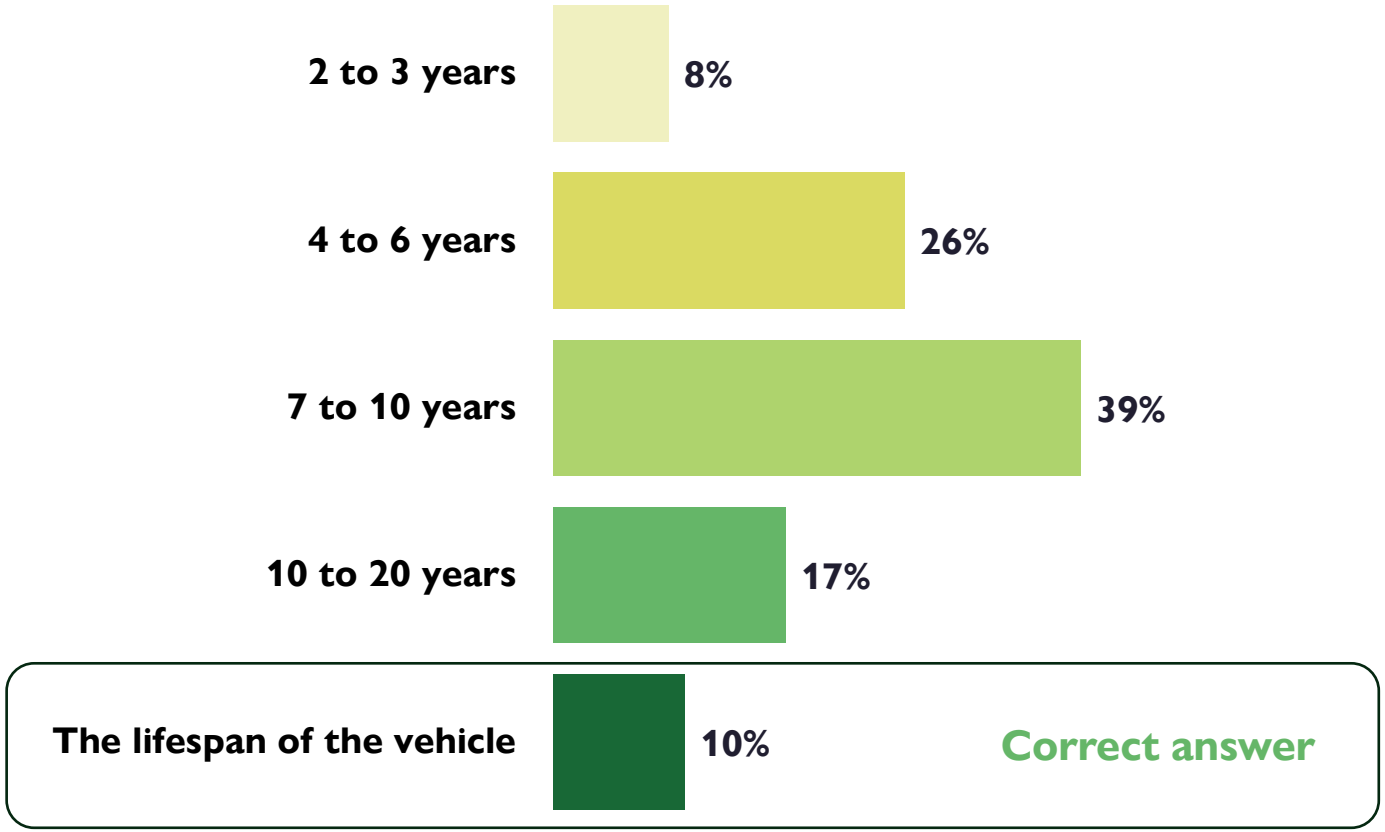
18 – 29	30 – 44	45 – 59	60+
17%	19%	25%	30%

18 – 29	30 – 44	45 – 59	60+
21%	13%	7%	5%

[all] Base n=1,500

How long is the typical lifespan of a battery in an electric vehicle?

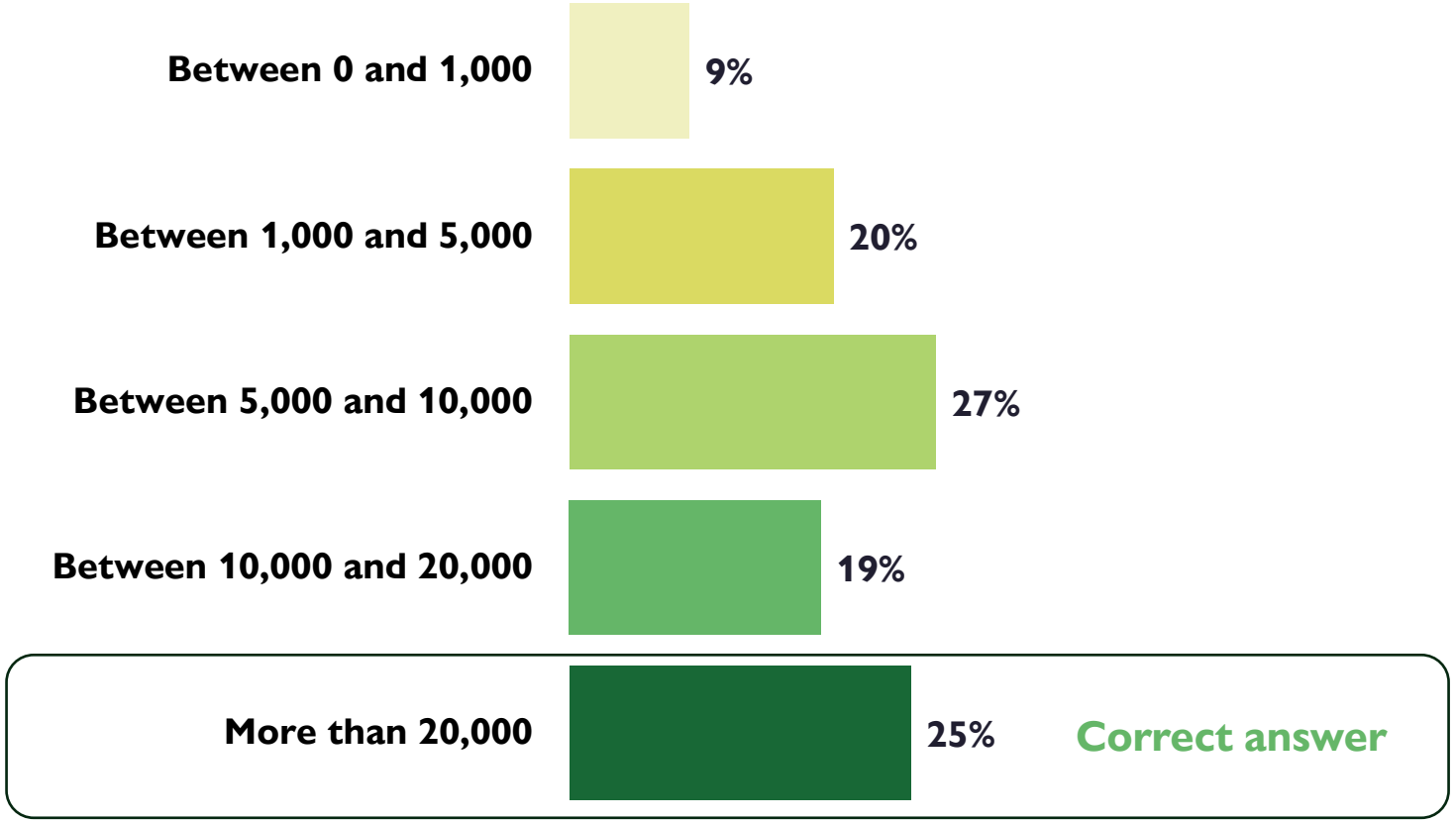
Lifespan of a battery in an EV



[all] Base n=1,500

How many public chargers for electric vehicles are there in Canada?

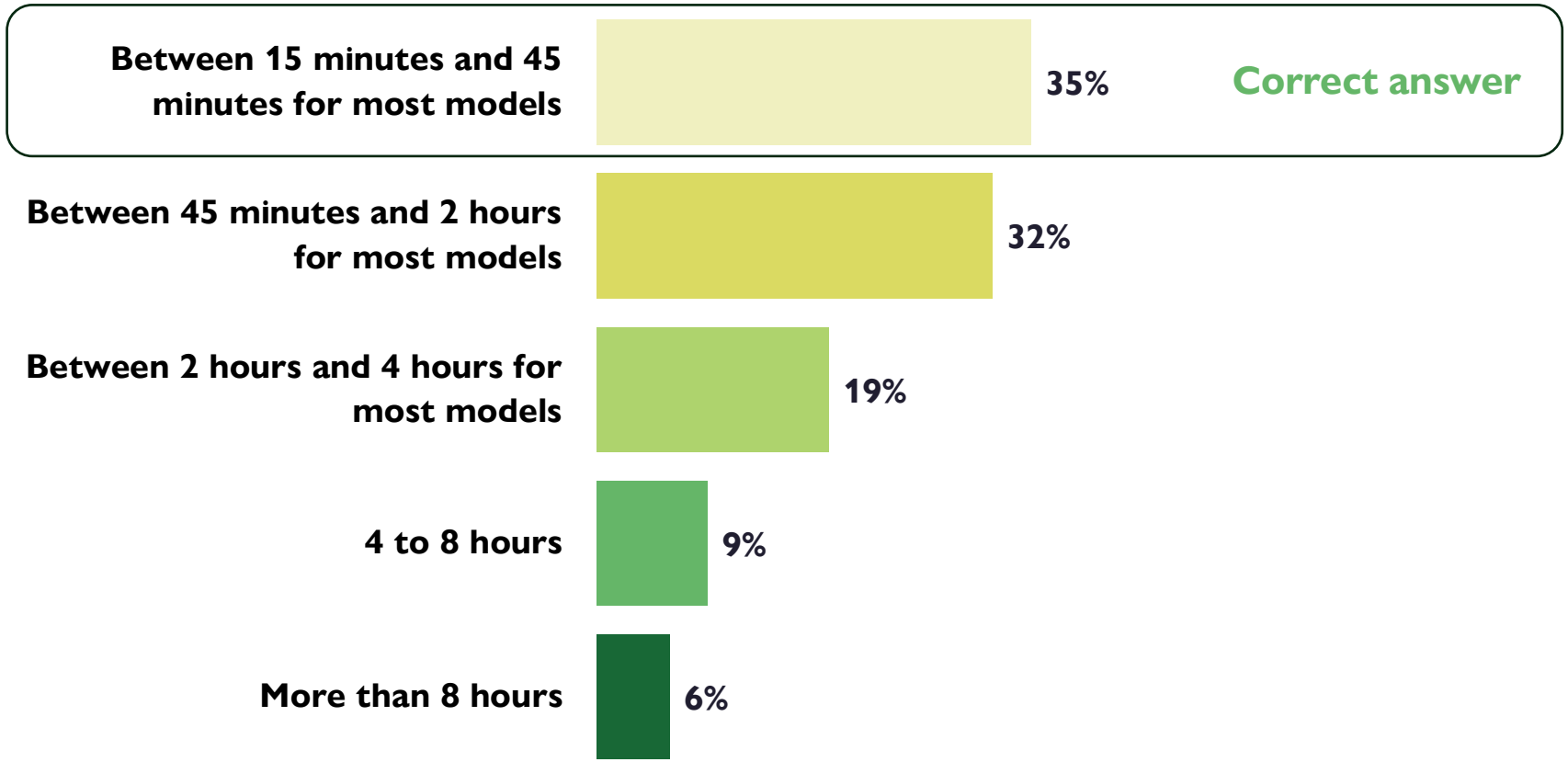
Number of public chargers for EVs in Canada



[all] Base n=1,500

How long does it take to charge most 2023/2024 EVs using a superfast charger from 20% to 80%?

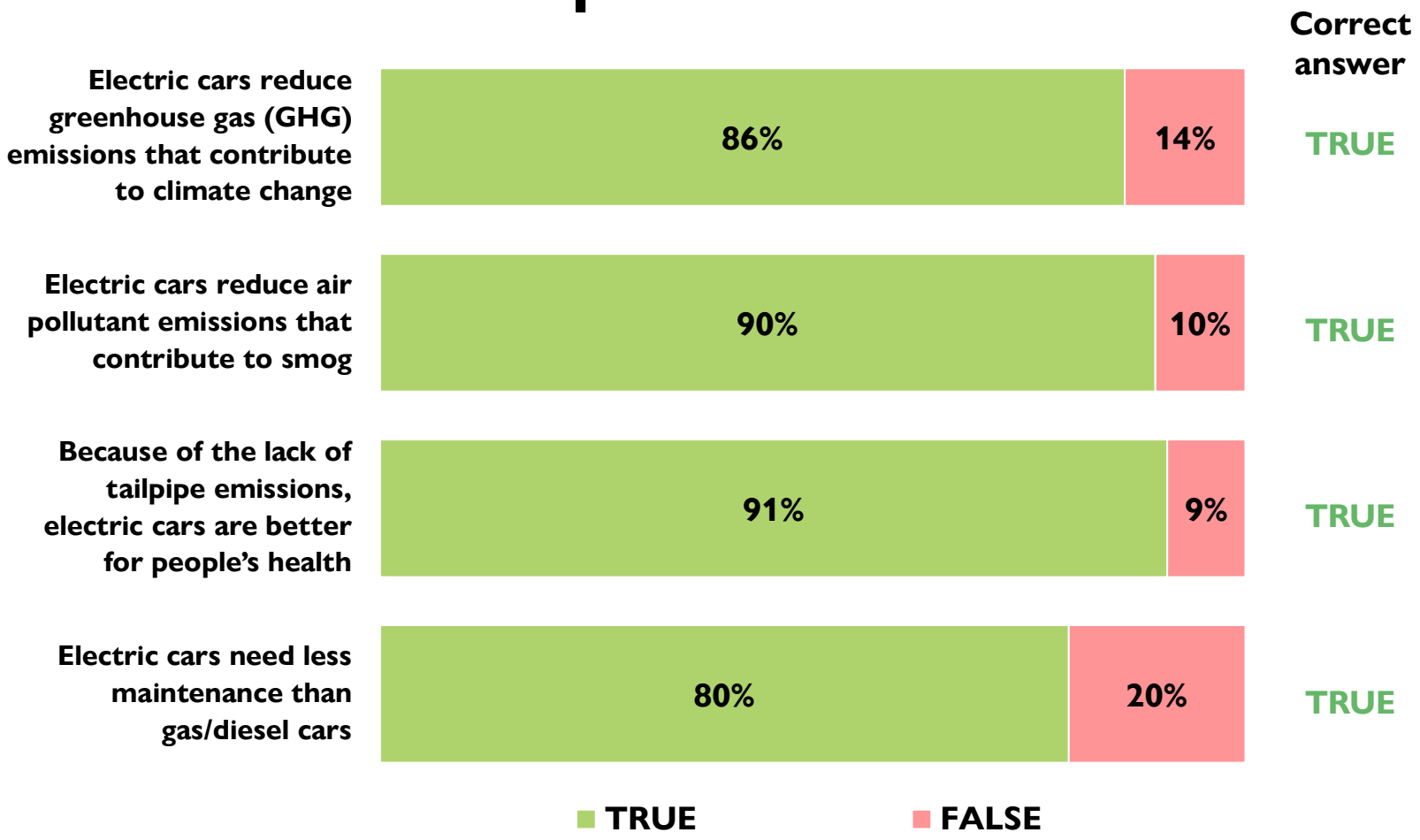
Time to charge an EV from 20% to 80%



[all] Base n=1,500

For the following statements, please indicate whether you think the statement is TRUE or FALSE:

Environmental impact of EVs



Correct answer

TRUE

TRUE

18 – 29	30 – 44	45 – 59	60+
82%	90%	91%	92%

TRUE

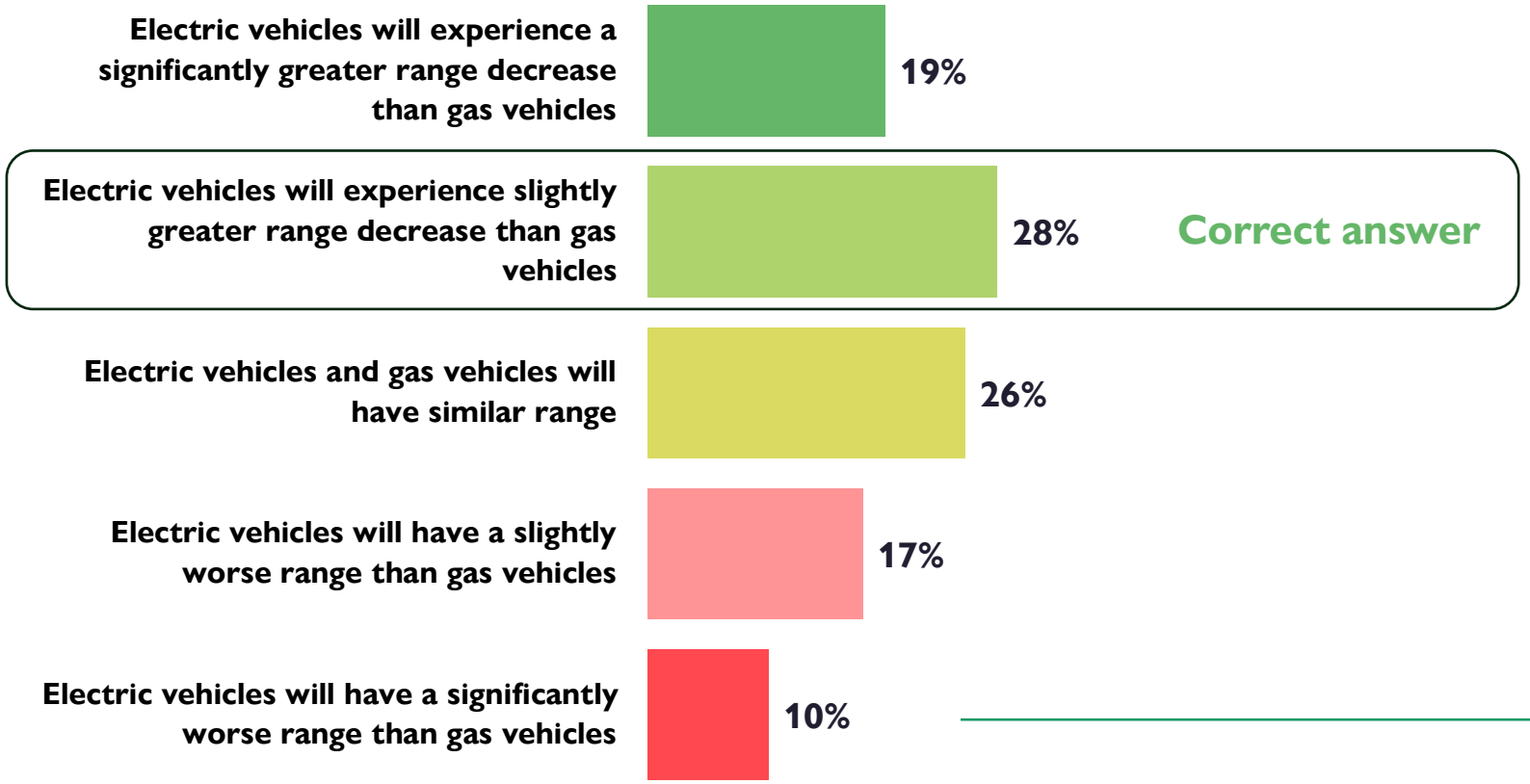
18 – 29	30 – 44	45 – 59	60+
86%	90%	93%	93%

TRUE

[all] Base n=1,500

How do you anticipate electric vehicles will perform in winter conditions in terms of their range compared to gas vehicles?

Performance of EVs in winter conditions



18 – 29	30 – 44	45 – 59	60+
36%	30%	26%	24%

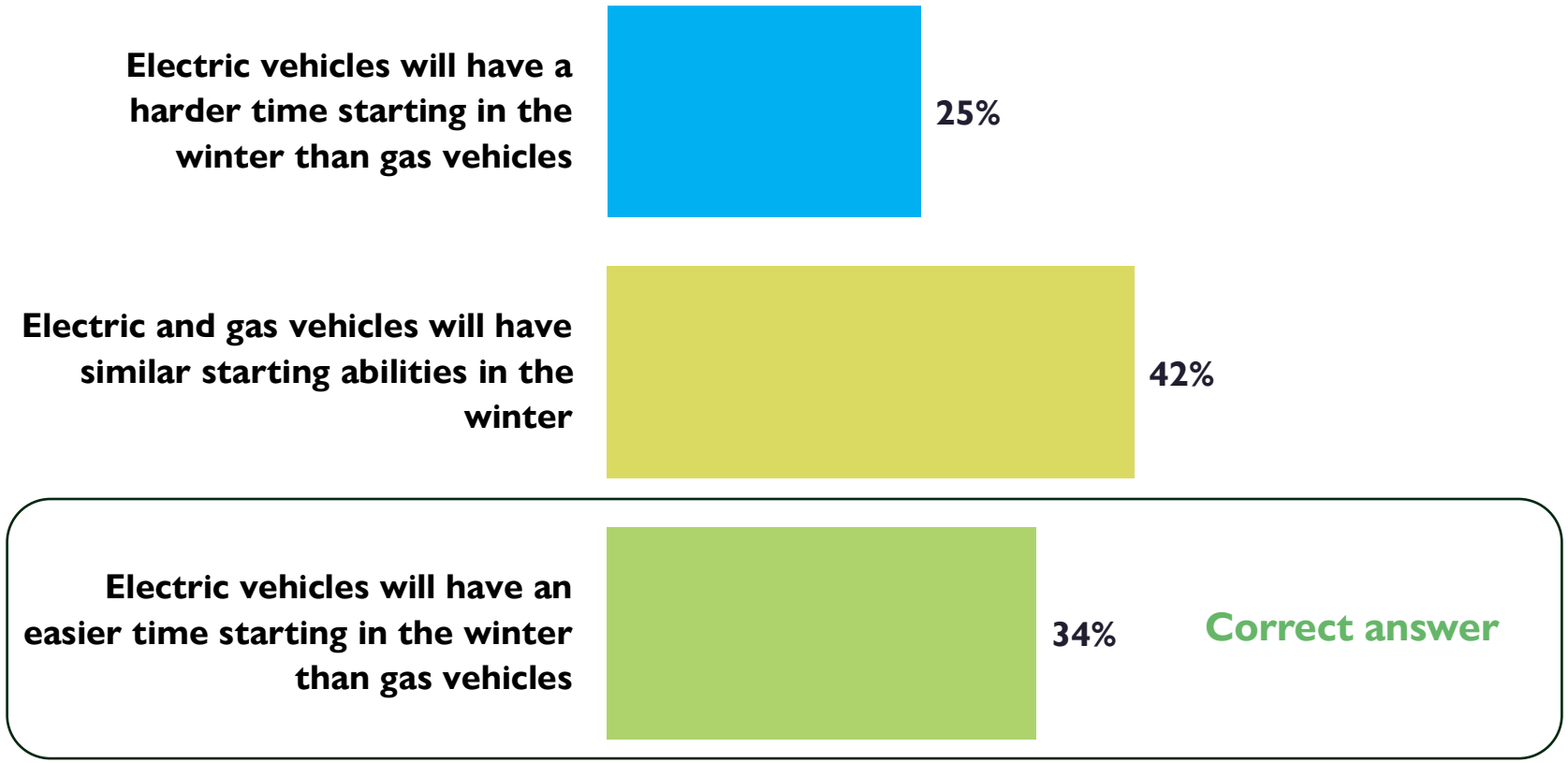
Urban	Suburban	Rural
30%	30%	19%

BC	AB	SK/MB	ON	QC	ATL
6%	17%	17%	8%	8%	13%

[all] Base n=1,500

How do you perceive the ability of electric vehicles to start in cold winter conditions compared to gas vehicles?

Ability to start EVs in the winter

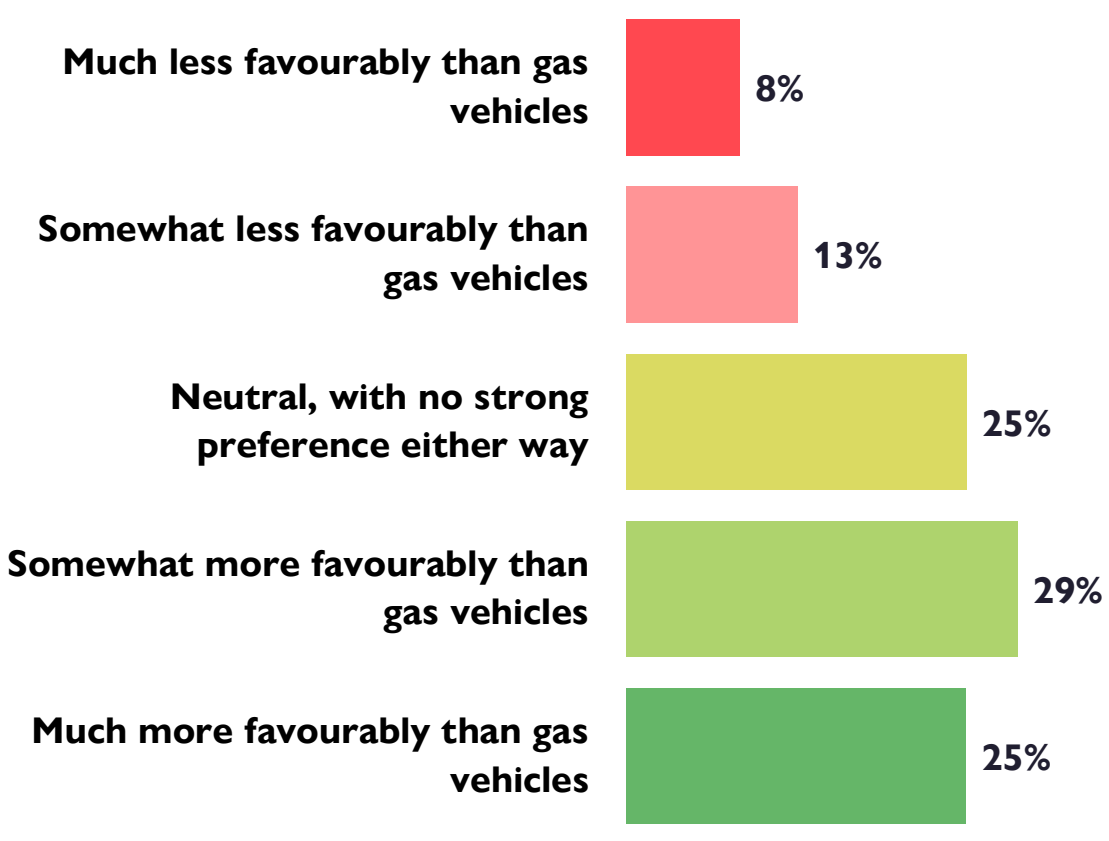


[all] Base n=1,500

Reassess Purchase Intent

After receiving information about electric vehicles, how do you generally view electric vehicles in comparison to gas vehicles?

Views of EVs after receiving information



21%
Less favourably

BC	AB	SK/MB	ON	QC	ATL
19%	30%	22%	21%	18%	19%

54%
More favourably

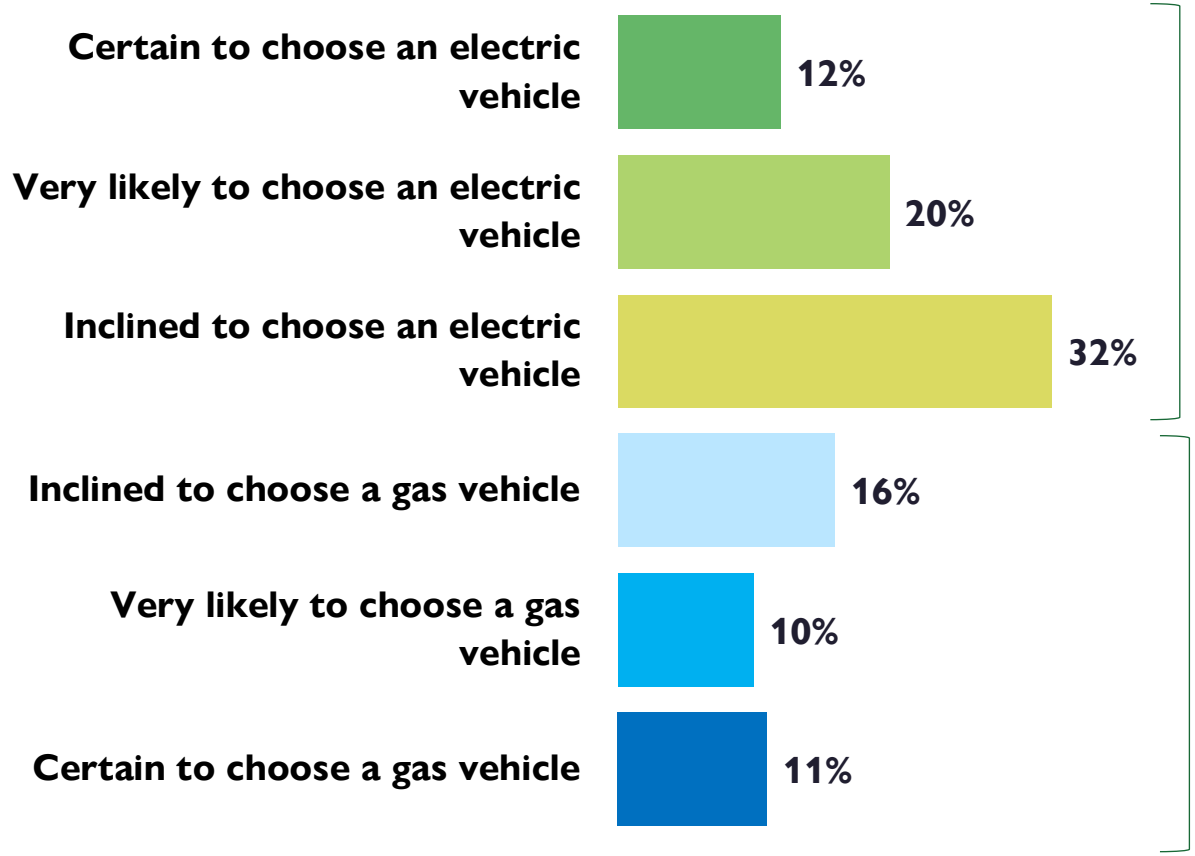
BC	AB	SK/MB	ON	QC	ATL
55%	45%	51%	53%	63%	46%

[all] Base n=1,500

Taking into consideration the information provided to you, when thinking about your next vehicle purchase, which will you choose?

And now, thinking about your next vehicle, would you…

Among non-EV owners



63%
Inclined to choose an EV

Urban	Suburban	Rural
69%	62%	53%

37%
Inclined to choose a gas vehicle

Base: Those who do not own an electric or plug-in hybrid vehicle (n=1,299)

When thinking about your next vehicle, which will you choose?

Among non-EV owners

	Before	After	Variation
Certain to choose an electric vehicle	7.15%	11.57%	+4.42
Very likely to choose an electric vehicle	13.29%	19.60%	+6.31
Inclined to choose an electric vehicle	22.64%	32.28%	+9.64
Inclined to choose a gas vehicle	22.71%	15.79%	-6.92
Very likely to choose a gas vehicle	16.97%	9.93%	-7.04
Certain to choose a gas vehicle	17.25%	10.83%	-6.42

+20.37
Inclined to choose an EV

-20.38
Inclined to choose a gas vehicle

Base: Those who do not own an electric or plug-in hybrid vehicle (n=1,299)

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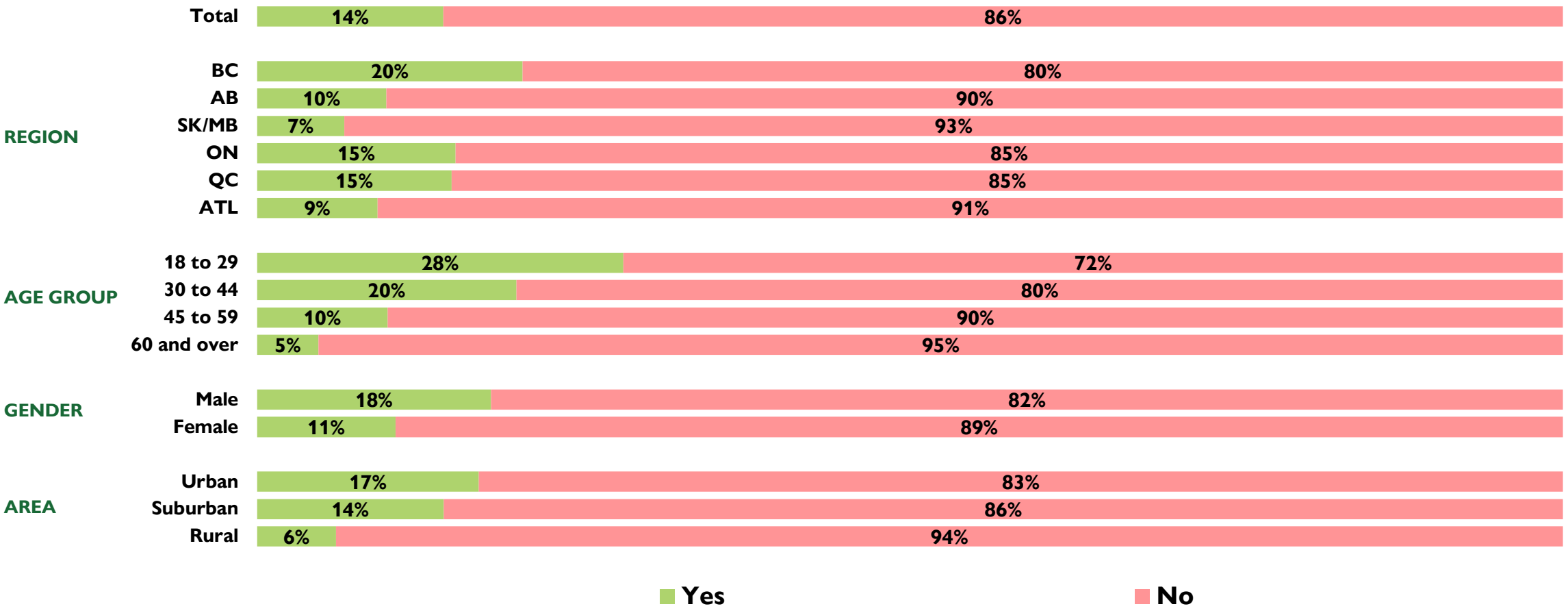
Thank You

Appendix
Crosstabs

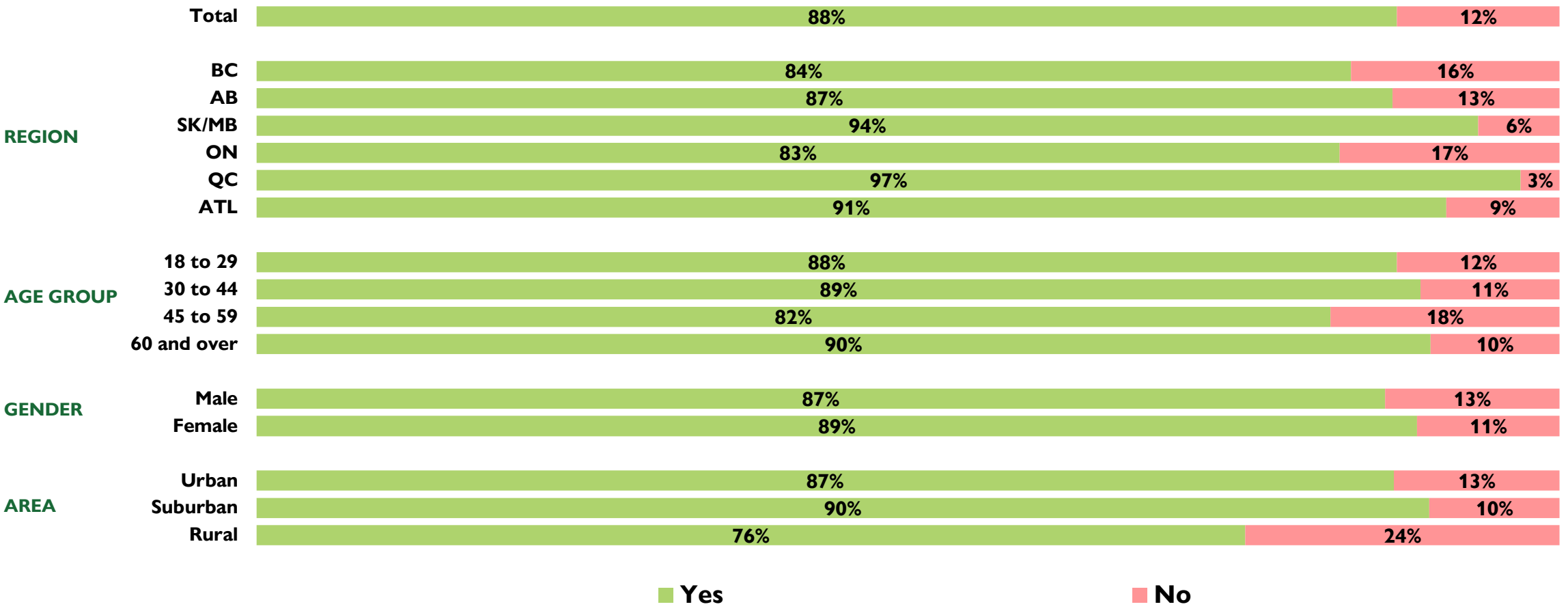
Do you own an electric vehicle or plug-in hybrid vehicle?

Own an electric or plug-in hybrid vehicle?



[all] Base n=1,500

Will your next vehicle be electric or plug-in hybrid?

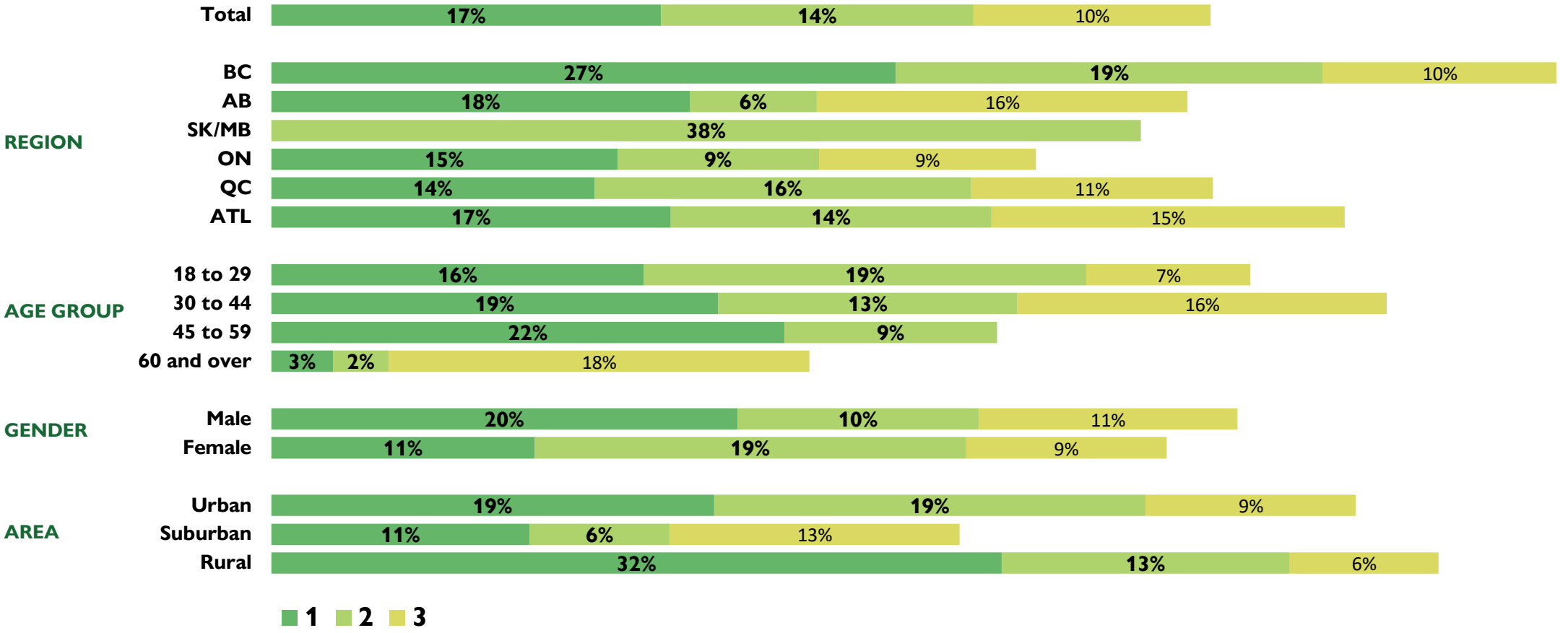


[those who own an electric or plug-in hybrid vehicle] Base n=201

What are the main reasons that you would consider purchasing an electric vehicle again? Please rank the top 3 reasons

Top reasons to consider purchasing an EV again

Cost savings

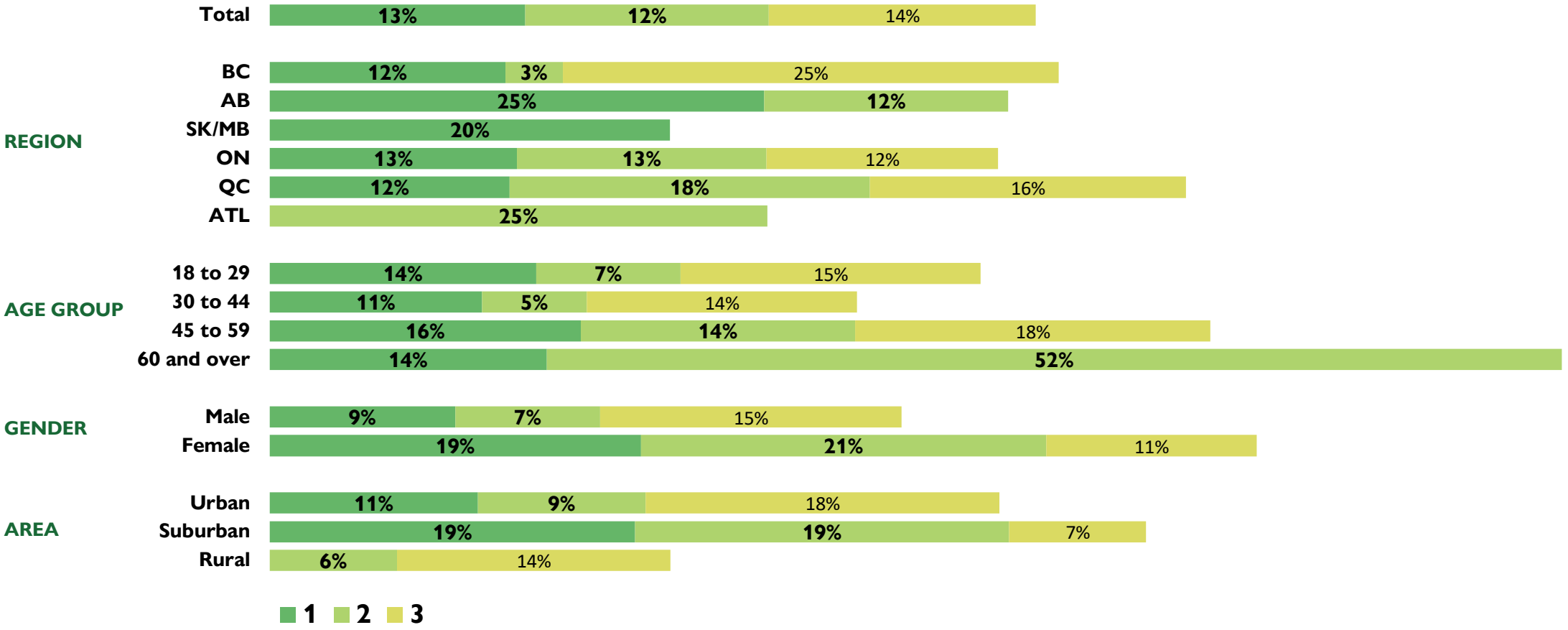


[those who will purchase an electric or plug-in hybrid vehicle] Base n=177

What are the main reasons that you would consider purchasing an electric vehicle again? Please rank the top 3 reasons

Top reasons to consider purchasing an EV again

Environmental benefits

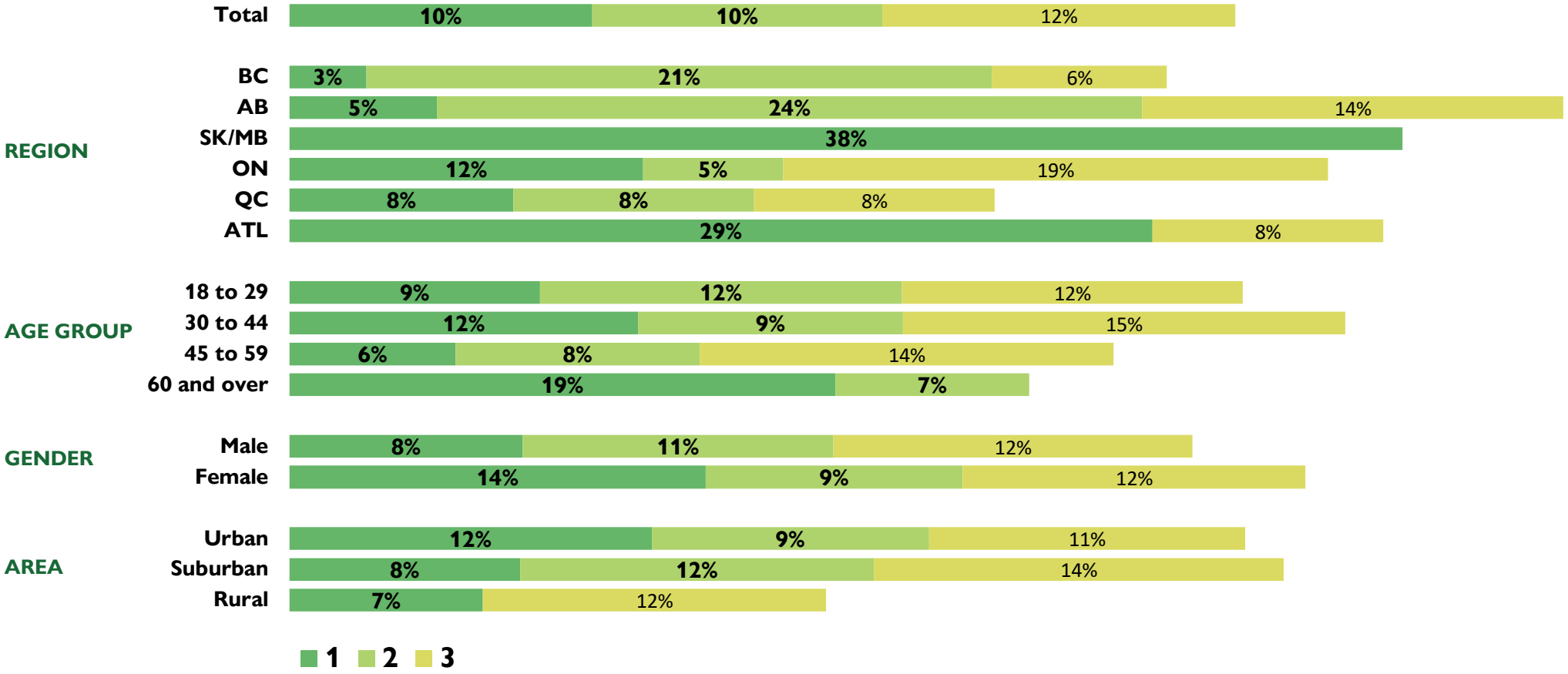


[those who will purchase an electric or plug-in hybrid vehicle] Base n=177

What are the main reasons that you would consider purchasing an electric vehicle again? Please rank the top 3 reasons

Top reasons to consider purchasing an EV again

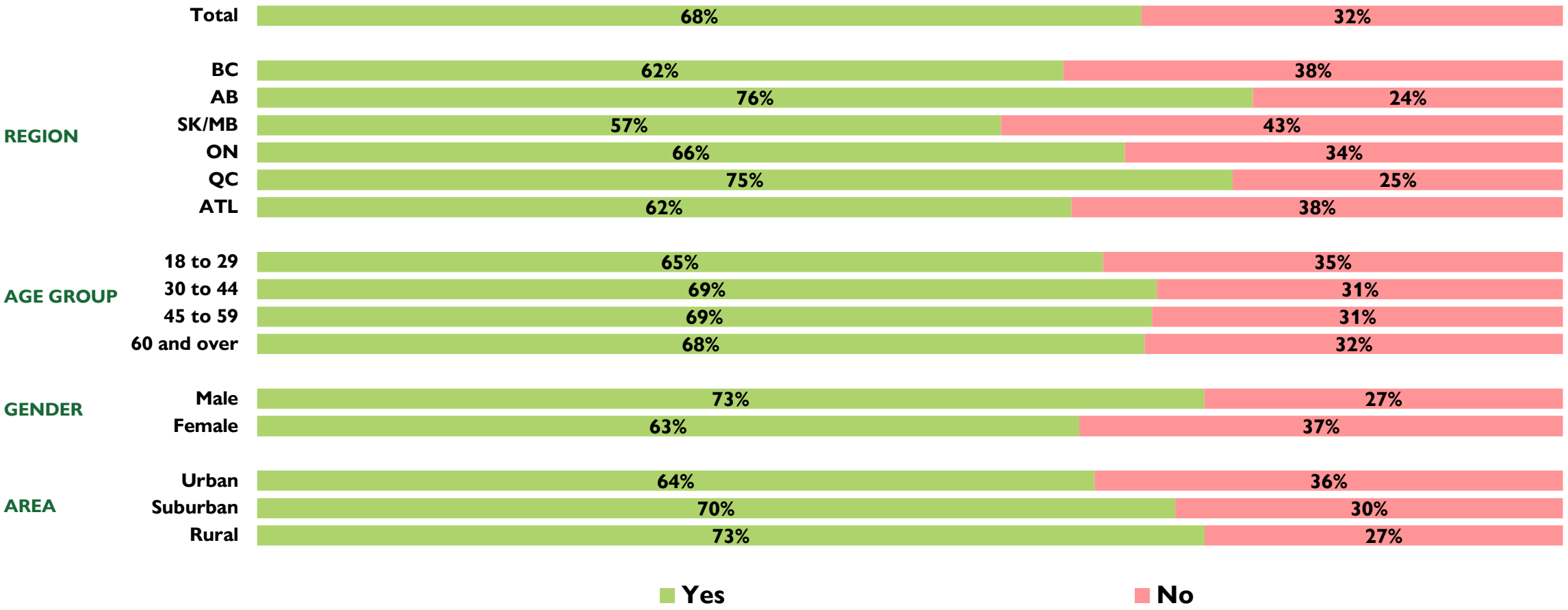
Advanced technology



[those who will purchase an electric or plug-in hybrid vehicle] Base n=177

Do you own a gas or non plug-in hybrid vehicle?

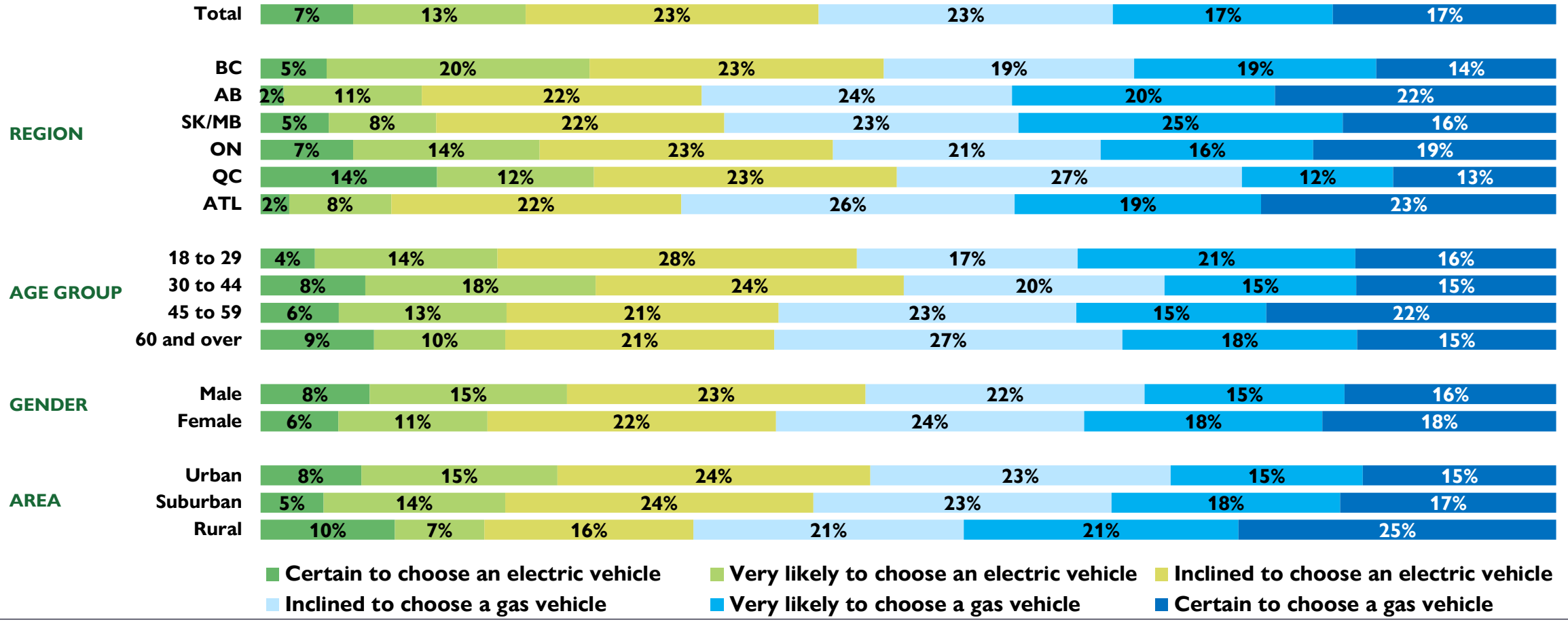
Own a gas or non-plug-in hybrid vehicle?



[all] Base n=1,500

When thinking about your next vehicle purchase, which will you choose?

Thinking about your next vehicle, would you…

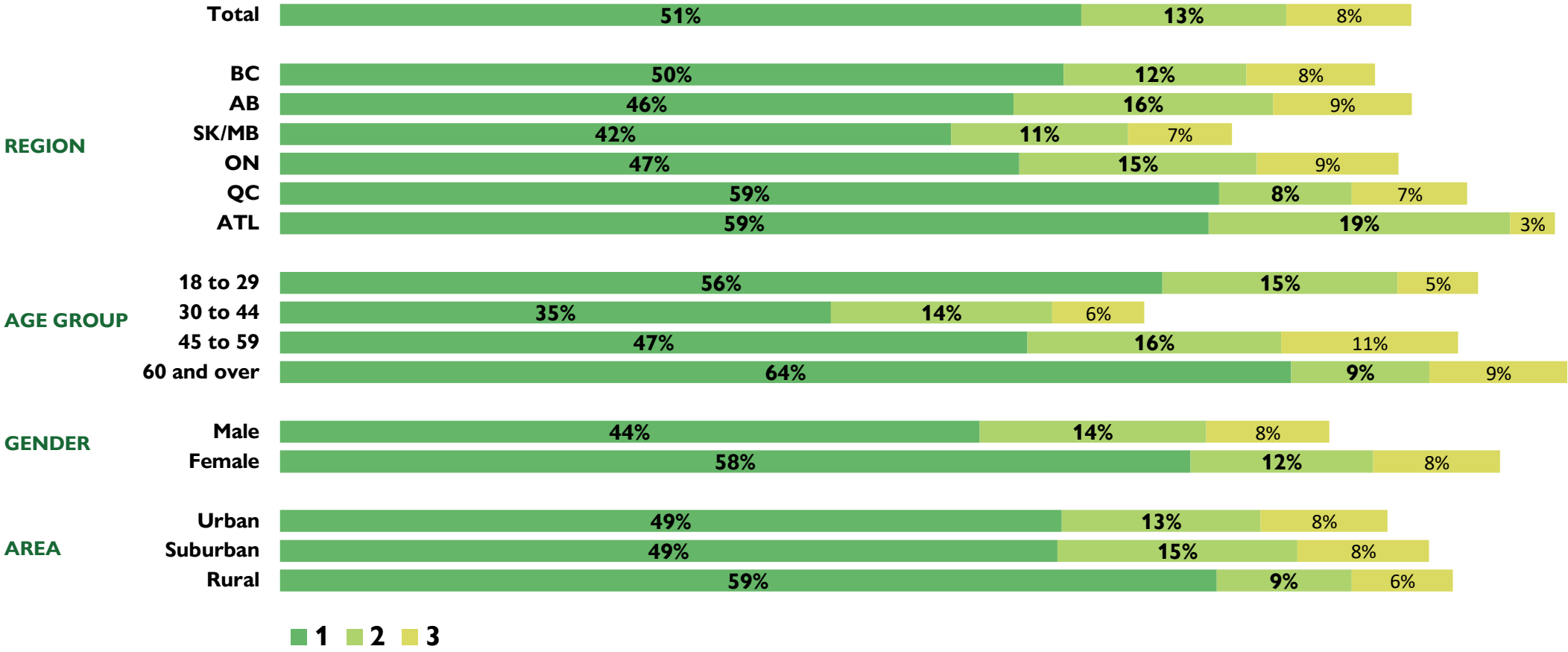


[those who do not own an electric or plug-in hybrid vehicle] Base n=1,299

What are the main reasons that you would consider purchasing an electric vehicle? Please rank the top 3 reasons

Top reasons to consider choosing an EV

Environmental benefits

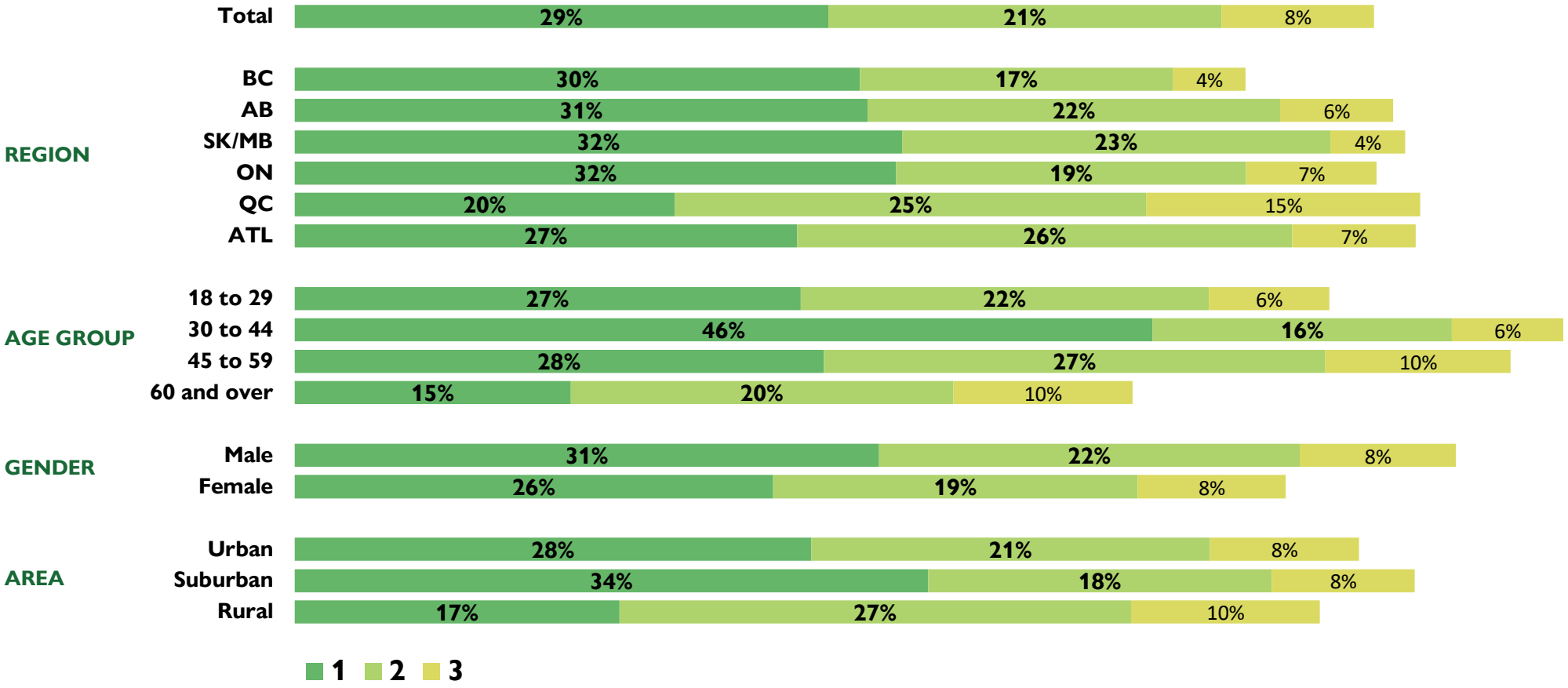


[those who are inclined to choose an electric vehicle] Base n=581

What are the main reasons that you would consider purchasing an electric vehicle? Please rank the top 3 reasons

Top reasons to consider choosing an EV

Cost savings

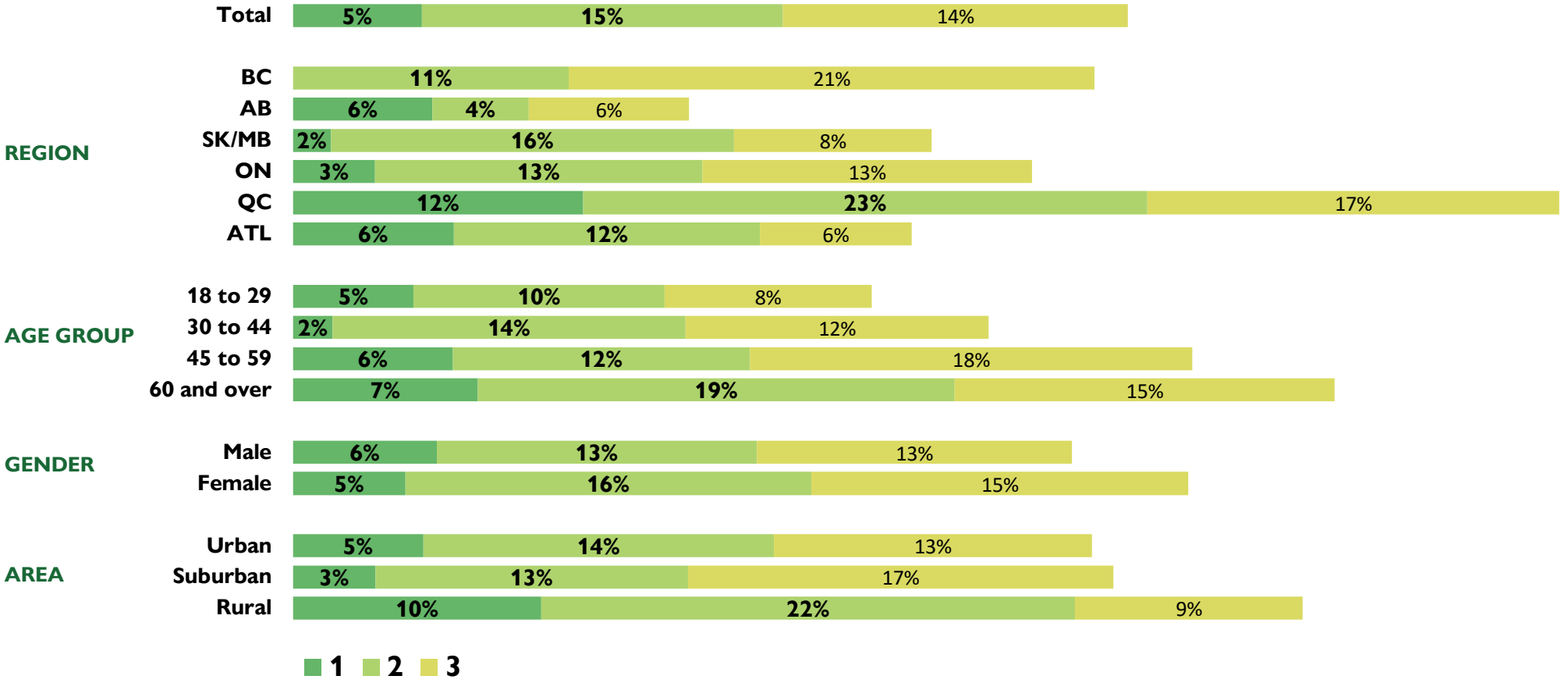


[those who are inclined to choose an electric vehicle] Base n=581

What are the main reasons that you would consider purchasing an electric vehicle? Please rank the top 3 reasons

Top reasons to consider choosing an EV

Government incentives

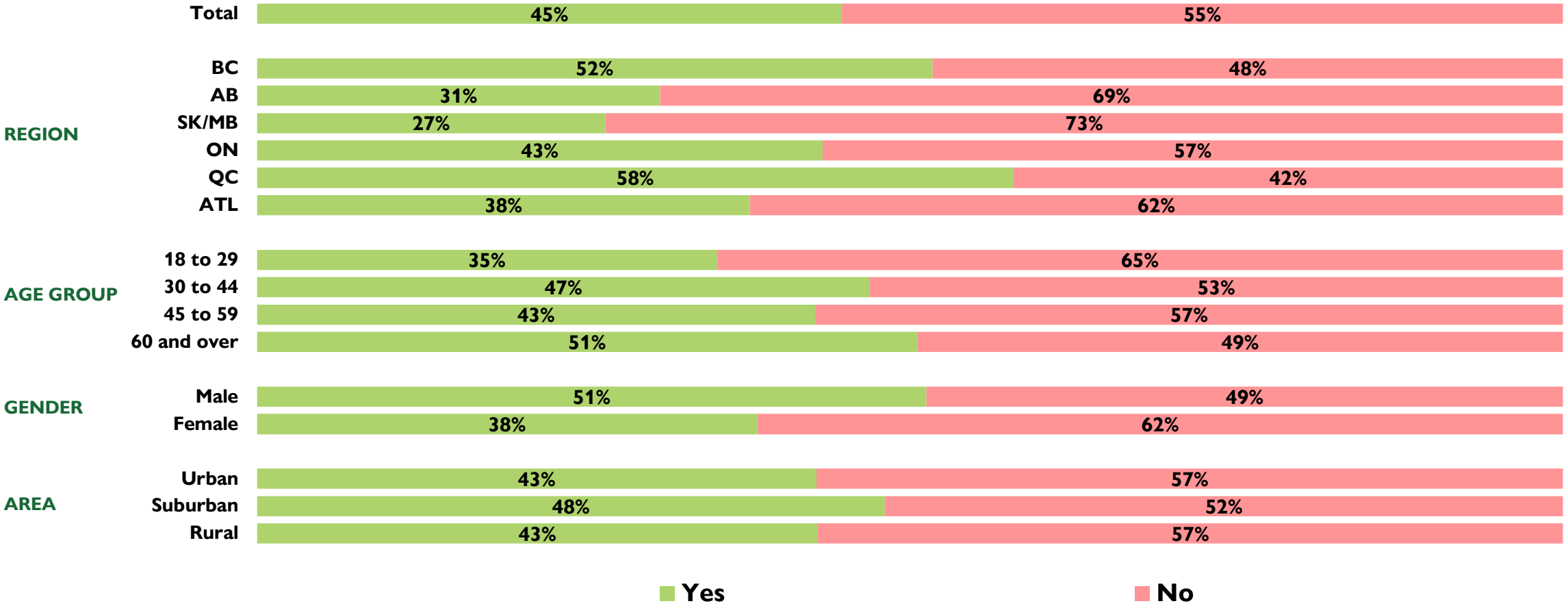


[those who are inclined to choose an electric vehicle] Base n=581

Are you aware of the federal government rebate of up to $5,000 for purchasing an electric vehicle?

Aware of the $5k rebate for purchasing an EV?

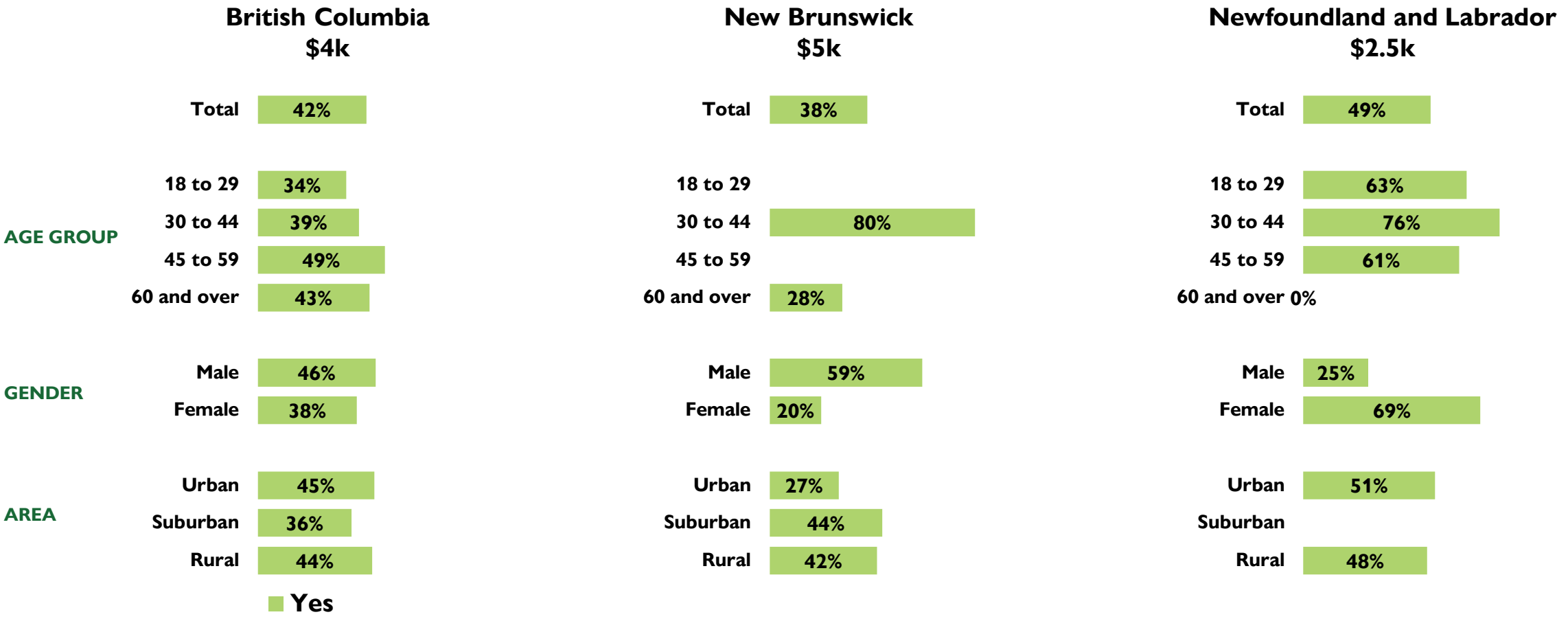
From the Federal Government



[all] Base n=1,500

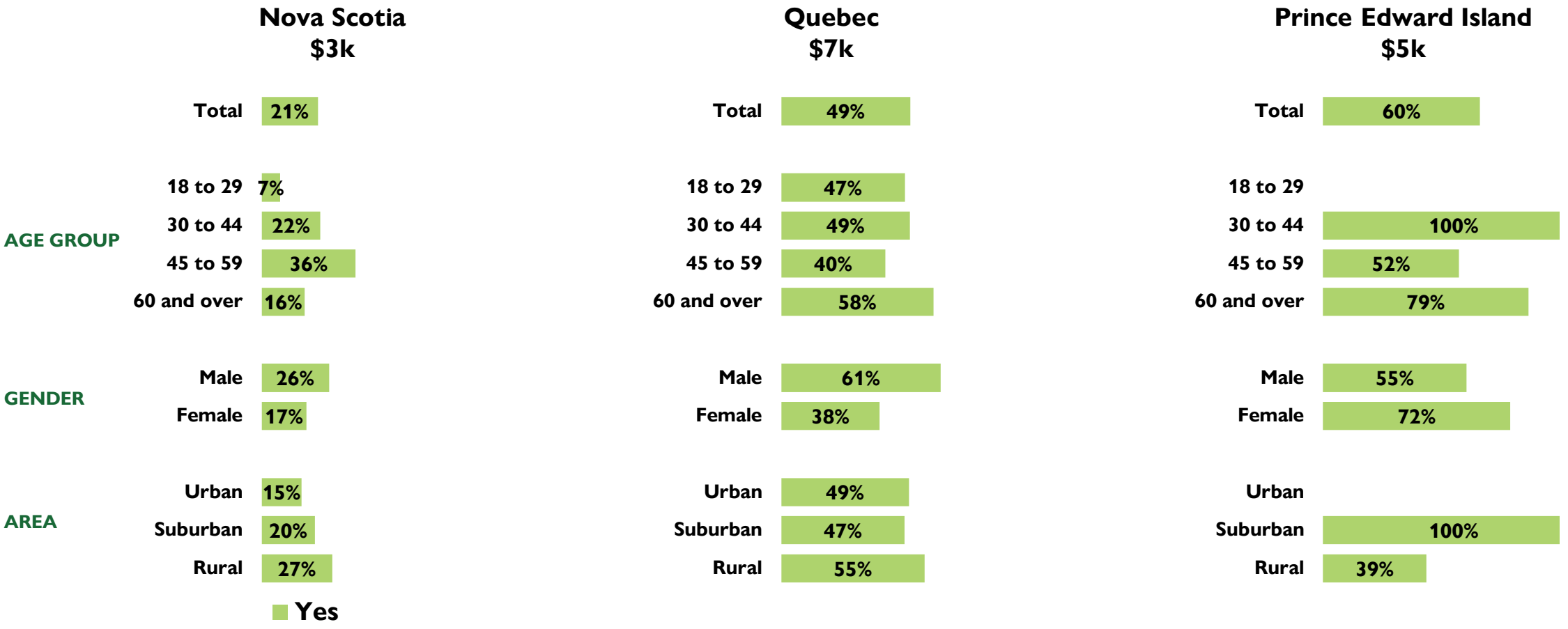
Aware of the rebate for purchasing an EV?

Summary of provinces



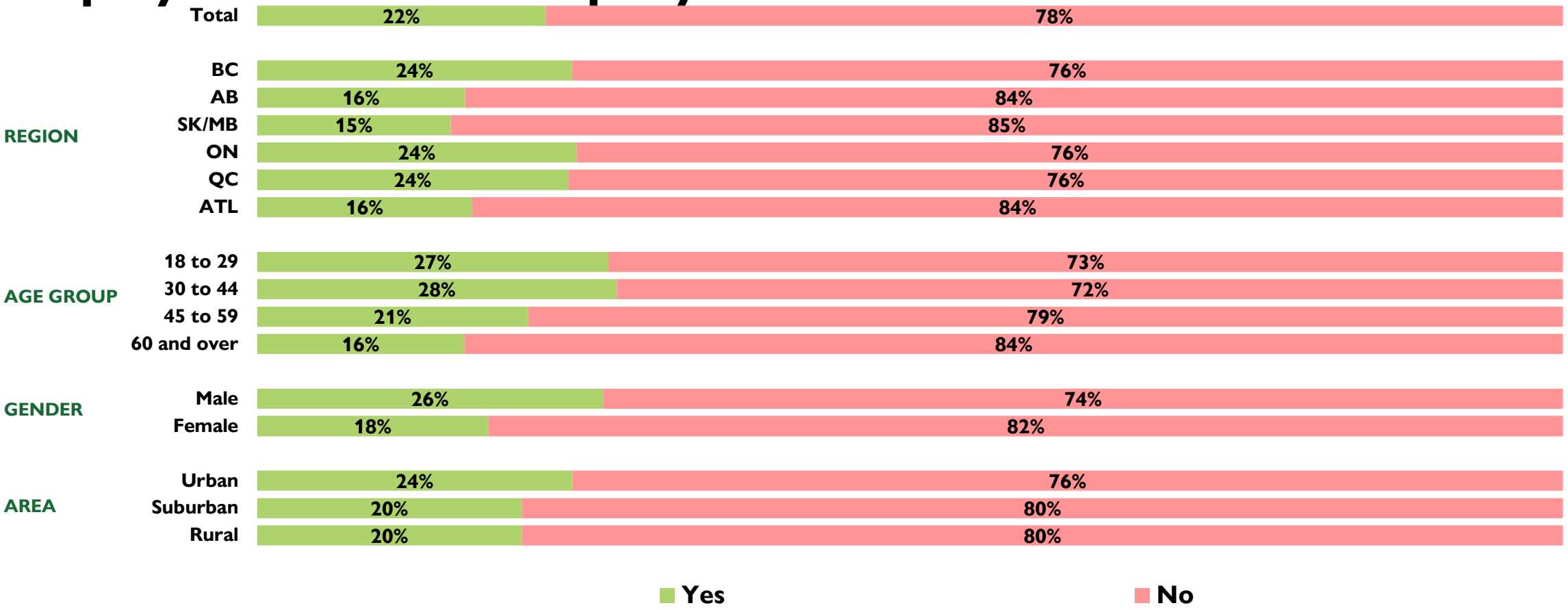
Aware of the rebate for purchasing an EV?

Summary of provinces



Are you aware that you may be eligible for a federal tax deduction specifically for the purchase of an electric vehicle if you are self-employed or own a company?

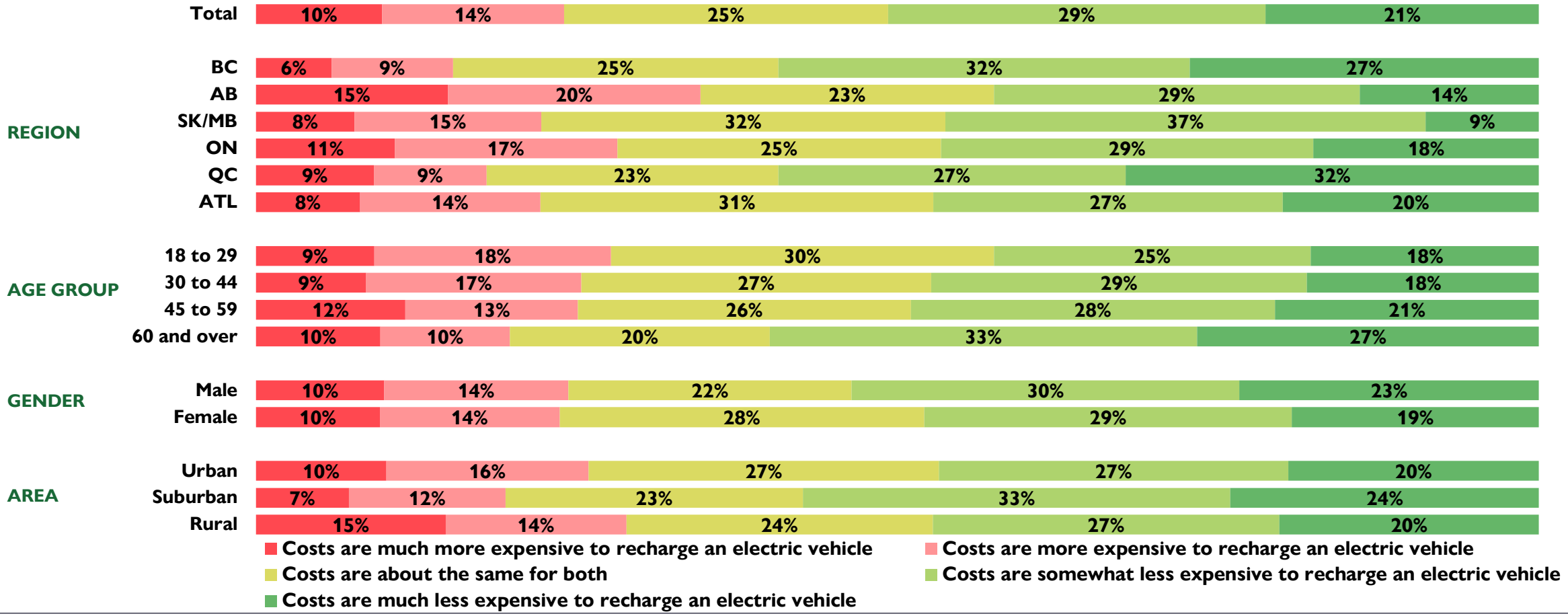
Aware of tax deductions for purchasing an EV if you are self-employed or own a company?



[all] Base n=1,500

Do you believe that charging an electric vehicle is more or less expensive than filling up a gas vehicle?

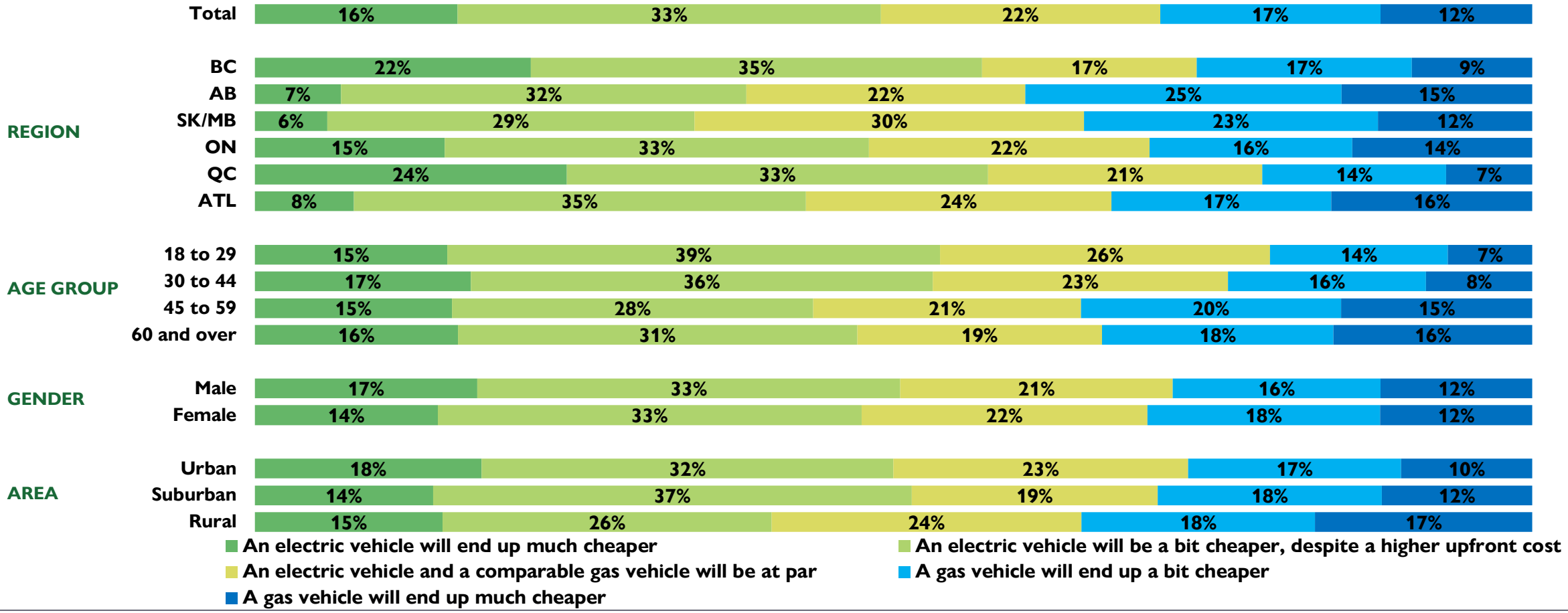
Cost of charging an EV



[all] Base n=1,500

Which of the following statements is true regarding the total cost of ownership when purchasing a new vehicle?

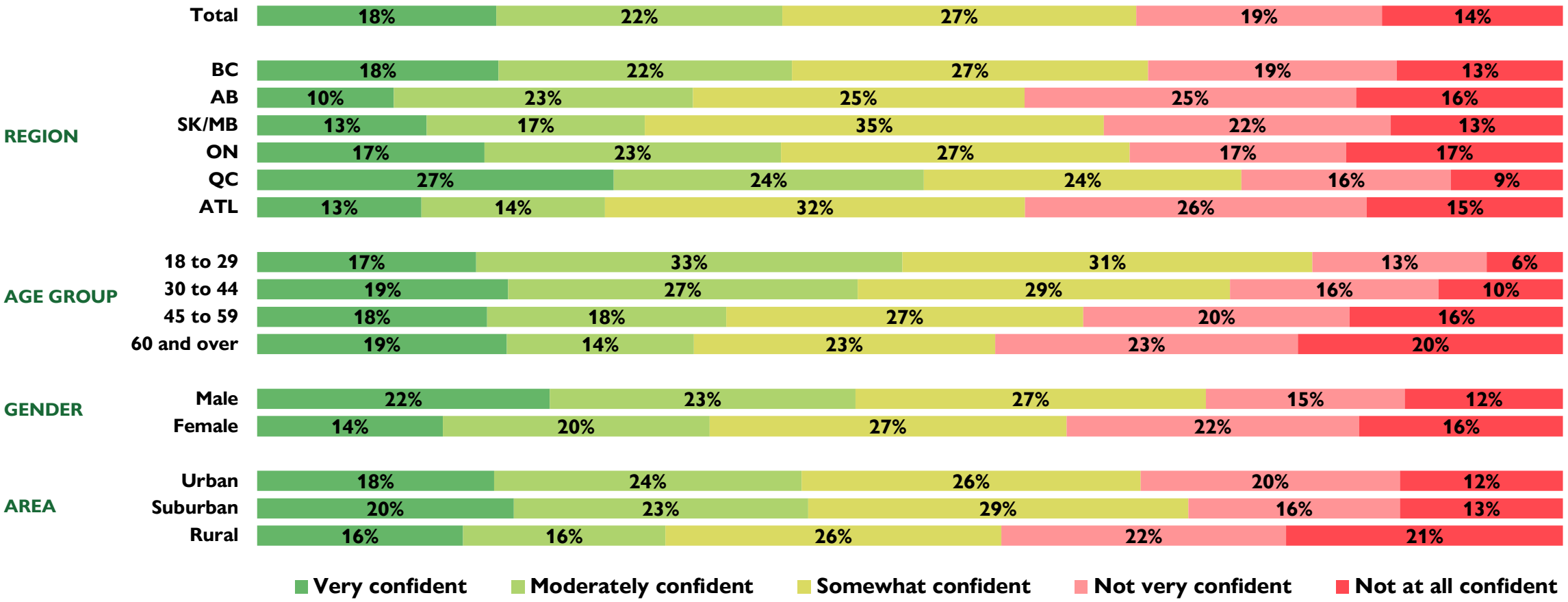
Statements when purchasing a new EV



[all] Base n=1,500

With approximately 80% of charging occurring at home, how confident are you that you will be able to charge your EV when needed?

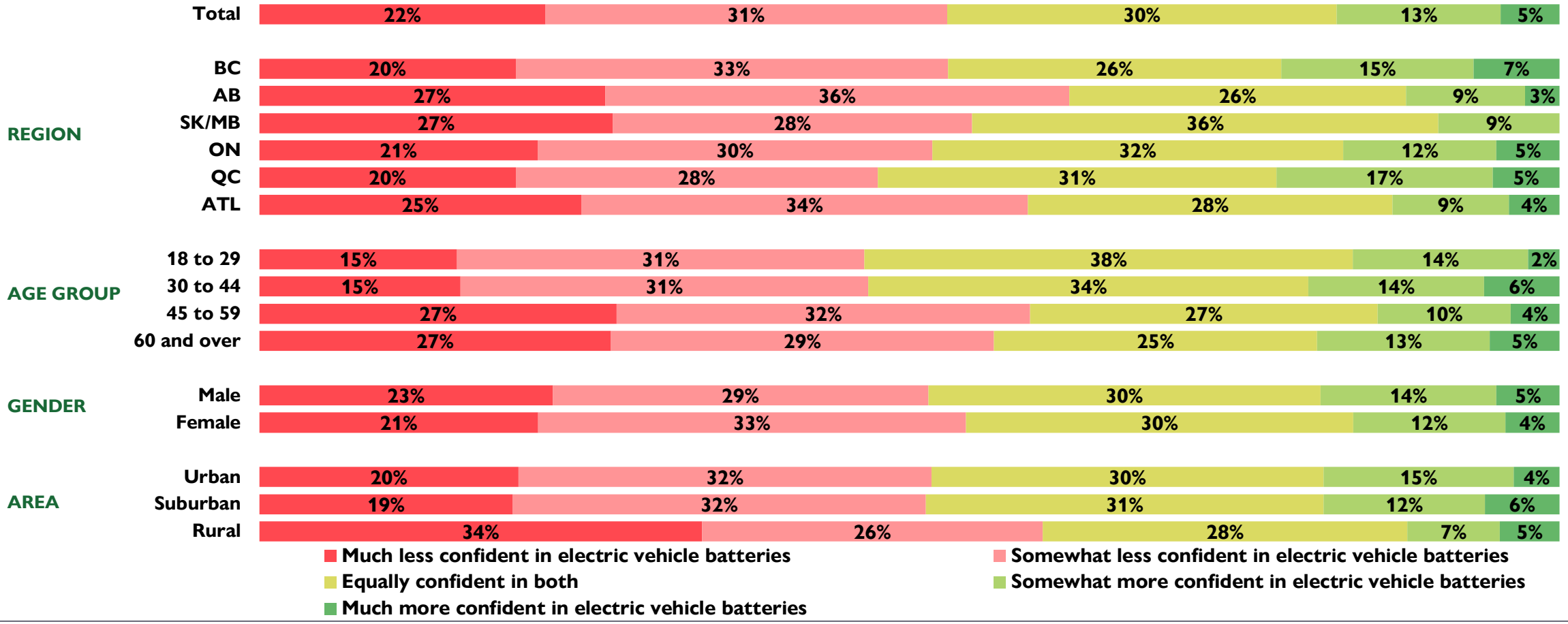
Confident in charging your EV when needed



[all] Base n=1,500

How confident are you in the reliability and longevity of electric vehicle batteries?

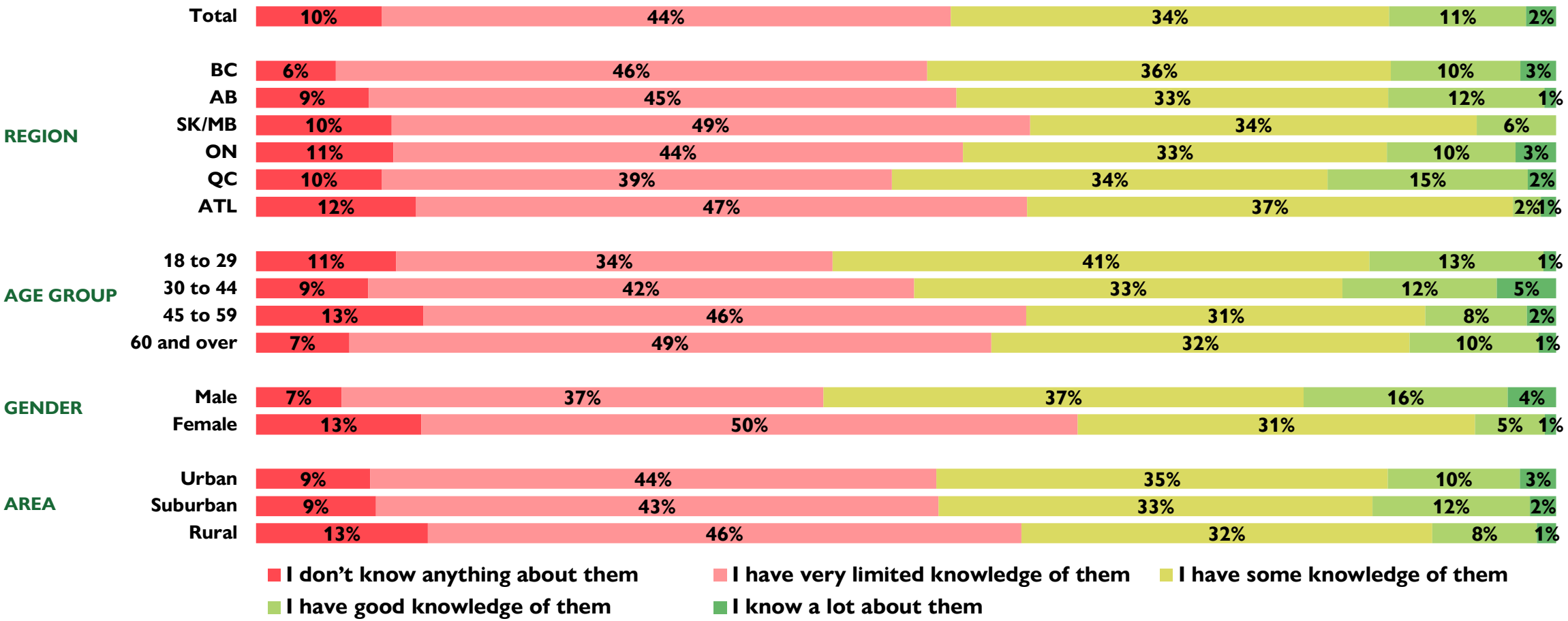
Confident on reliability and longevity of EV batteries



[all] Base n=1,500

In your opinion, how knowledgeable are you about electric vehicles?

Knowledge about EV



[all] Base n=1,500