## KANTAR TNS.

# Auto Dealership Survey on Electric Vehicles 

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## 1. Executive Summary

### 1.1. Research Purpose and Objectives

In the Pan-Canadian Framework on Clean Growth and Climate Change, federal, provincial and territorial governments committed to work with industry and stakeholders to develop a national strategy to increase the number of zero-emission vehicles on Canadian roads. To support this work Natural Resources Canada (NRCan) commissioned this research to gain a clear and current understanding of potential barriers, misperceptions and other limitations to the effective support on electric vehicles for consumers from dealerships.

## Research Objectives

The overall objective of this research was to measure the level of knowledge of electric vehicles and to identify barriers and potential opportunities in selling electric vehicles among car sales representatives at new car dealerships in Canada that are certified to sell electric vehicles (including Plug-in Electric Vehicles PHEVs and/or Battery Electric Vehicles BEVs). The results of this research will be used to inform best practices in electric vehicle program and policy design. It will also provide a baseline measure for a number of measures related to the performance and effectiveness of NRCan's programs, products and activities.

### 1.2. Methodology

A telephone survey was conducted from January 19 to February 7, 2018 among new car sales representatives at new car dealerships in Canada who are certified to sell electric vehicles. In total 178 telephone interviews were conducted covering all jurisdictions, using a list of new car dealerships that sold electric vehicles provided by NRCan. The list was dialed randomly and soft targets/quotas for regional representation were included. With a population of 2066 certified electric vehicle dealerships, a sample size of 178 provides a margin of error of 7.08 at the $95 \%$ level.

### 1.2.1. Sub-group analyses, statistical significance and rounding

Analysis was undertaken to establish any differences based on dealership characteristics such as location of dealership (rural or urban and region), number of electric vehicles displayed on the lot, amenities offered to consumers, electric vehicle annual sales and number of sales people employed. Only differences significant at the $95 \%$ confidence level are presented in this report.

The numbers presented throughout this report are rounded to the closest full number. Due to this rounding, in some cases it may appear that ratings collapsed together are different by a percentage point from when they are presented individually and totals may not add up to $100 \%$.

### 1.3. Contract Value

The total contract value for this project was $\mathbf{\$ 8 4 , 9 9 7 . 3 6}$ including applicable taxes.

### 1.4. Statement of Political Neutrality

I hereby certify as a Representative of Kantar TNS 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 apolitical party or its leaders.


Tanya Whitehead
Kantar TNS
Senior Director

### 1.5. Summary of Findings

## Respondent Profile

One hundred and seventy-eight interviews were conducted among new car sales representatives at new car dealerships in Canada who are certified to sell electric vehicles. Most sales representatives who were surveyed, worked in small (less than 5 sales representatives) or medium sized dealerships ( $5-9$ sales representatives) ( $27 \%$ and $49 \%$ respectively) while the remaining $24 \%$ worked for larger dealerships that employed 10 or more sales representatives.

The majority of sales representatives interviewed were between the ages of 25 and 44 (60\%), $29 \%$ were above the age of 45 and $11 \%$ were under 25 years old. Eighty-seven per cent of the participating dealerships were in urban areas with the largest proportion residing in Ontario (34\%) followed by Quebec (26\%), Alberta and British Columbia (12\% each), the Atlantic (8\%) and Manitoba and Saskatchewan ( $8 \%$ combined).

Three quarters of the sales representatives responded to the survey in English (74\%), while the remaining $26 \%$ choose to respond in French.

## Electric Vehicle Dealerships

Slightly more than one-third of sales representatives who sell electric vehicles (38\%) indicated their dealership sells between one and five electric vehicles per year. Another third (32\%) indicated their dealership sells between 6 and 49 EVs per year while $16 \%$ indicated their dealership sells more than 50 electric vehicles per year. Fourteen per cent of all sales representatives indicated that their dealership sells no electric vehicles even though they are certified to do so.

More than one-third (35\%) of dealerships surveyed, display just one electric vehicle on their lot while another third (37\%) display two or more. More than one quarter (29\%) do not display any electric vehicles on their lot.

Many dealerships surveyed have vehicle charging stations on-site (76\%), with $70 \%$ having level 1 or 2 and $44 \%$ having level 3 charging stations. More than half ( $60 \%$ ) of the dealerships surveyed offer assistance with tax incentive paperwork.

Most sales representatives indicated the manufacturer (77\%) and their own dealership (60\%) advertises electric vehicles available from their location. Sales representatives whose dealership display electric vehicles are significantly more likely to say their dealership advertises electric vehicles ( $72 \%$ vs $30 \%$ ) as are sales representatives who work in urban locations ( $61 \%$ vs $55 \%$ ).

## Knowledge and Training of Electric Vehicle Sales Representatives

Most electric vehicle sales representatives surveyed, report being very knowledgeable about warranties (67\%), vehicle range on full charge (65\%), charging methods (61\%), and tax incentives (50\%). Respondents report being less knowledgeable about the battery life (47\%), cost of ownership ( $41 \%$ ) and operation (35\%) as well as charging station networks (31\%).

Approximately, eight-in-ten (79\%) sales representatives have received at least some training on electric vehicles ${ }^{1}$ and most ( $71 \%$ ) receive training on electric vehicles multiple times per year. Online training courses were the most common type of training received (94\%), followed by on-the-job training (69\%) and roadshow training from manufacturers (63\%). A small minority undertook classroom training (5\%) or self-study (5\%) ${ }^{2}$ with a variety of materials such as manufacturer materials, online searches and comparative studies.

A strong majority of respondents say the electric vehicle training they received included information on charging methods (97\%), vehicle range on a full charge (96\%), warranties (96\%), cost of ownership (89\%), battery life (88\%) and cost of operation (84\%). Fewer said they received training on administering incentives (53\%), vehicle specifications (21\%) or features (9\%). A handful identified test-driving an electric vehicle as part of the training (4\%).

[^0]
## Challenges and Barriers to Electric Vehicle Sales

Sales representatives were asked to identify, unprompted, the main challenges faced when trying to sell electric vehicles. The top five barriers cited included:

- The high cost of electric vehicles (23\%)
- Supply issues or low availability of electric vehicles (21\%)
- Lack of consumer understanding about electric vehicles (17\%)
- Skepticism about the technology or trust in the product (17\%)
- Lack of consumer understanding about the range of an electric vehicle (11\%)

Sales representatives were also asked about barriers to selling electric vehicles from a prompted list. Supply issues or low availability (73\%) was the most commonly cited barrier, followed closely by the lack of consumer understanding related to an electric vehicle's range (71\%), a lack of local charging infrastructure ( $69 \%$ ), lack of consumer understanding about electric vehicles in general ( $67 \%$ ), lack of consumer understanding related to charging (57\%) and low consumer interest in electric vehicles (53\%).

## Future Sales Expectations

Sales representatives are optimistic when it comes to sales expectations for electric vehicles. When asked how many they personally expect to sell in 2018, only nine per cent believe they would not sell any electric vehicles, with $29 \%$ of those residing in the Atlantic and $14 \%$ in the Prairies.

Forty three percent of sales representatives expect to sell between one and five electric vehicles in 2018 while $41 \%$ forecast selling between 6 and 49. A small number of sales reps ( $8 \%$ ) also believe that they will sell more than 50 electric vehicles in 2018.

## Conclusions

In summary, car dealerships certified to sell electric vehicles in Canada who report selling the highest volume of electric vehicles are more likely to display electric vehicles on their lot and tend to be located in provinces where incentives are offered to consumers. Dealerships in these provinces are also more likely to receive more frequent training and generally report being more knowledgeable about electric vehicles.

While most electric vehicle sales representatives receive at least annual training on a variety of topics and report being knowledgeable about charging methods and vehicle range, fewer report knowledge of battery life, cost of ownership and cost of operation. Furthermore, few report having been trained on vehicle specifications or features. Just a handful said test driving an electric vehcile was included in the training.

Sales representatives most commonly cite lack of consumer knowledge or interest as a barrier to selling electric vehicles.

## 2. Detailed Findings

### 2.1. Electric Vehicle Dealerships

### 2.1.1. Sales

Nearly one-third (35\%) of dealerships sell under 500 gas or diesel-powered road vehicles each year while another third (35\%) sell 500-999 gas or diesel-powered road vehicles each year. The remaining ( $29 \%$ ) sell more than 1,000 gas or diesel-powered road vehicles per year.

Exhibit 2.1.1.a. Sales

|  | Total |
| :--- | :---: |
| Base $=$ actual | $(178)$ |
| $<500$ | $\%$ |
| $500-999$ | $35 \%$ |
| $1000+$ | $35 \%$ |
| None | $1 \%$ |

Q21. Approximately, how many gas or diesel-powered road vehicles does your dealership sell per year?

As with gas or diesel-powered road vehicles, sales for electric vehicles vary by dealership as well, though to a somewhat larger extent. A few dealerships (16\%) are responsible for the large majority of sales, selling 50 or more vehicles per year. One third (32\%) of dealerships sell between 6 and 49 electric vehicles per year while $38 \%$ sell between one and five electric vehicles per year. A small number of dealerships (14\%) sell no electric vehicles even though they are licensed to do so.

Sales representatives who work at dealerships with fewer sales representatives report fewer electric vehicle sales. Those working at dealerships with less than five sales representatives are more likely to report selling five or fewer vehicles (58\%) compared to those who work at dealerships with more than five sales representatives (24-33\%). As well, sales representatives in the Prairies are far more likely to report dealership sales of between one and five vehicles (62\%) compared to all other regions (24-37\%).

Exhibit 2.1.1.b. Sales by number of dealership representatives

| Annual Electric Vehicle Sales | Total | Number of Dealership Representatives |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Base = actual | (178) | $\text { Less than } 5$ <br> (48) | $\begin{gathered} 5-9 \\ (88) \end{gathered}$ | $\begin{aligned} & 10+ \\ & (42) \end{aligned}$ |
| None | 14\% | 16\% | 16\% | 9\% |
| 1-5 | 38\% | 58\% | 33\% | 24\% |
| 6-49 | 32\% | 23\% | 34\% | 38\% |
| 50+ | 16\% | 2\% | 17\% | 29\% |

Q22. And, how many EVs does your dealership sell per year?

## Exhibit 2.1.1.c. Sales by region

| Annual Electric Vehicle |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales |$\quad$ Total $\quad$ Region

Q22. And, how many EVs does your dealership sell per year?

Sales representatives are optimistic when it comes to sales expectations for electric vehicles in 2018. When asked how many they personally expect to sell in 2018, only nine per cent believe they will not sell any electric vehicles. This is mostly driven by sales representatives in the Atlantic and Prairies, where $29 \%$ and $14 \%$ of sales representatives respectively believe they will not sell any electric vehicles in 2018.

Forty-three percent estimate selling between one and five vehicles next year while the remaining believe they will sell between 6 and $49(41 \%)$ or more than 50 electric vehicles ( $8 \%$ ) in 2018.

## Exhibit 2.1.1.d Sales expectations

| Anticipated Personal EV Sales in 2018 | Total |
| :--- | :---: |
| Base $=$ actual | $(178)$ |
| None | $\%$ |
| $1-5$ | $4 \%$ |
| $6-49$ | $43 \%$ |
| $50+$ | $8 \%$ |

Q23. Approximately, how many EVs do you personally expect to sell in 2018?

### 2.1.2. Electric vehicles displayed on lot

More than one third (35\%) of new car dealerships surveyed display just one electric vehicle on their lot while $17 \%$ display two, $10 \%$ display three or four and $10 \%$ display five or more. More than onequarter (29\%) do not display any electric vehicles on their lot.

Quebec dealerships display the most electric vehicles, with $82 \%$ of those surveyed saying they display at least one. Half of Atlantic dealerships surveyed (50\%) say they do not display any electric vehicles.

## Exhibit 2.1.2. Electric vehicles displayed on lot

| Number <br> of EVs Displayed <br> on Lot | Total |  | Region |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Base = actual | $(178)$ <br> $\%$ | Atlantic <br> $(14)$ | Quebec <br> $(49)$ | Ontario (60) | Prairies <br> $(32)$ | British <br> Columbia <br> $(23)$ |
| 1 | $35 \%$ | $29 \%$ | $47 \%$ | $25 \%$ | $35 \%$ | $39 \%$ |
| 2 | $17 \%$ | $7 \%$ | $20 \%$ | $25 \%$ | $8 \%$ | $4 \%$ |
| 3 | $7 \%$ | $7 \%$ | $4 \%$ | $10 \%$ | $7 \%$ | $9 \%$ |
| 4 | $3 \%$ | - | $2 \%$ | $3 \%$ | $5 \%$ | - |
| $5+$ | $10 \%$ | $7 \%$ | $8 \%$ | $8 \%$ | $9 \%$ | $17 \%$ |
| None | $29 \%$ | $50 \%$ | $18 \%$ | $28 \%$ | $35 \%$ | $30 \%$ |

Q6. How many EVs do you typically have displayed at the dealership?

### 2.1.3. Dealership amenities

## Charging stations

Many electric vehicle car dealerships surveyed have vehicle charging stations on-site (76\%). Seventy per cent have level 1 or 2 charging stations while $44 \%$ have level 3 charging stations.

Surveyed dealerships that display electric vehicles on the lot are more likely to offer electric charging stations ( $85 \%$ vs. $54 \%$ ). Dealerships that have annual sales of six or more electric vehicles per year are also more likely to offer services or amenities such as electric charging stations compared to those who do not sell electric vehicles.

As well, dealerships in Ontario (88\%), Quebec (78\%) and British Columbia (70\%) are more likely to have charging stations compared to those in the Atlantic (57\%) and the Prairies (57\%).

Exhibit 2.1.3.a Dealership amenities by electric vehicles displayed on lot and annual sales

| Dealership amenities | Total | EVs Displayed on Lot |  | Annual Electric Vehicle Sales |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Base $=$ actual | (167) | $\begin{gathered} \text { Yes } \\ (127) \end{gathered}$ | $\begin{gathered} \text { No } \\ (51) \end{gathered}$ | None <br> (25) | $\begin{gathered} 1-5 \\ (65) \end{gathered}$ | $\begin{aligned} & 6-49 \\ & (58) \end{aligned}$ | $\begin{aligned} & 50+ \\ & (30) \end{aligned}$ |
| Net - electric vehicle charging stations | 76\% | 85\% | 54\% | 50\% | 66\% | 95\% | 84\% |
| Level 1 or 2 electric vehicle charging stations | 70\% | 80\% | 46\% | 42\% | 63\% | 86\% | 80\% |
| Level 3 electric vehicle charging stations | 44\% | 49\% | 31\% | 8\% | 37\% | 60\% | 59\% |

Q14. Which of the following amenities or services related to EVs do you have at your dealership?

## Exhibit 2.1.3.b Dealership amenities by region

|  | Total |  | Region |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Base $=$ actual | $(167)$ | Atlantic | Quebec | Ontario | Prairies | British <br> Columbia <br> $(14)$ |
| Net - electric vehicle charging <br> stations | $76 \%$ | $57 \%$ | $78 \%$ | $88 \%$ | $64 \%$ | $70 \%$ |
| Level 1 or 2 electric vehicle <br> charging stations | $70 \%$ | $57 \%$ | $71 \%$ | $80 \%$ | $61 \%$ | $65 \%$ |
| Level 3 electric vehicle charging <br> stations | $44 \%$ | $21 \%$ | $59 \%$ | $45 \%$ | $26 \%$ | $52 \%$ |

Q14. Which of the following amenities or services related to EVs do you have at your dealership?

## Assistance with tax incentive claims

More than half of the dealerships surveyed offer assistance with tax incentive paperwork (60\%). The vast majority of these dealerships are located in regions that offer tax incentives, namely Quebec (82\%), Ontario (83\%) and British Columbia (91\%). Dealerships who offer assistance with tax incentive paperwork are also more likely to work in urban (62\%) rather than rural (48\%) areas and have higher annual sales of electric vehicles (more than five electric vehicle sales 76-90\% vs. none to less than six EV sales 26-46\%).

Exhibit 2.1.3.c Dealership amenities by annual electric vehicle sales and community

|  | Total | Annual Electric Vehicle Sales |  |  | Community |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Base $=$ actual | $(178)$ | None | $1-5$ | $6-49$ | $50+$ | Urban | Rural |
| $(25)$ | $(65)$ | $(58)$ | $(30)$ | $(155)$ | $(23)$ |  |  |
| Assistance with tax <br> incentive paperwork | $60 \%$ | $26 \%$ | $46 \%$ | $76 \%$ | $90 \%$ | $62 \%$ | $48 \%$ |

Q14. Which of the following amenities or services related to EVs do you have at your dealership?

## Exhibit 2.1.3.d Dealership amenities by region

|  | Total | Region |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Base $=$ actual | (178) | Atlantic (14) | Quebec (49) | Ontario (60) | Prairies <br> (32) | British Columbia (23) |
| Assistance with tax incentive paperwork | 60\% | - | 82\% | 83\% | - | 91\% |

Q14. Which of the following amenities or services related to EVs do you have at your dealership?

### 2.1.4. Advertising

Majorities of surveyed sales representatives indicate the manufacturer (77\%) and their dealership (60\%) advertises electric vehicles available from their location.

Respondents whose dealerships display electric vehicles are significantly more likely to say their dealership advertises electric vehicles ( $72 \%$ vs $30 \%$ ). Respondents who work in an urban rather than rural location are also more likely to say their dealership advertises electric vehicles ( $61 \%$ vs $55 \%$ ).

More respondents in Quebec indicate both the manufacturer and dealership advertise electric vehicles compared to those in other regions and especially the Atlantic.

Exhibit 2.1.4.a Advertising by region

| Advertising | Total |  | Region |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Base $=$ actual | $(178)$ | Atlantic <br> $(14)$ | Quebec <br> $(49)$ | Ontario <br> $(60)$ | Prairies <br> $(32)$ | British <br> Columbia <br> $(23)$ |
| Advertising by the manufacturer <br> specifically for EVs | $77 \%$ | $57 \%$ | $92 \%$ | $70 \%$ | $74 \%$ | $83 \%$ |
| Advertising by the dealership <br> specifically for EVs | $60 \%$ | $29 \%$ | $71 \%$ | $62 \%$ | $49 \%$ | $70 \%$ |

Q14. Which of the following amenities or services related to PHEVs and BEVEVs do you have at your dealership?

Exhibit 2.1.4.b Advertising by electric vehicles displayed on lot and community

| Advertising | Total | Community |  | Electric Vehicles <br> Displayed on Lot |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Base $=$ actual | $(178)$ | Urban <br> $(155)$ | Rural <br> $(23)$ | Yes <br> $(167)$ |  |
| Advertising by the manufacturer <br> specifically for EVs | $77 \%$ | $85 \%$ | $57 \%$ | $81 \%$ |  |

Q14. Which of the following amenities or services related to PHEVs and BEVEVs do you have at your dealership?

### 2.2. Knowledge of Electric Vehicles

Most electric vehicle sales representatives surveyed report being very knowledgeable about warranties ( $67 \%$ ), vehicle range on a full charge ( $65 \%$ ), charging methods ( $61 \%$ ) and tax incentives ( $50 \%$ ). Respondents report being less knowledgeable about battery life (47\%), cost of ownership (41\%), cost of operation (35\%), and charging station networks (31\%).

Sales representatives who worked at dealerships with annual sales of electric vehicles of six or more reported higher levels of knowledge in a number of areas including charging methods ( $73-74 \%$ vs. $48 \%$ ), battery life ( $62-63 \%$ vs. $31 \%$ ), cost of ownership ( $57-63 \%$ vs. $20 \%$ ), cost of operation ( $43-60 \%$ vs. $24 \%$ ) and charging station networks ( $38-50 \%$ vs. $19 \%$ ) compared to those who worked at dealerships with annual sales of five or less electric vehicles.

Reported knowledge tended to increase based on the number of sales staff employed. Sales representatives at dealerships with five or more employees generally report higher levels of knowledge on all electric vehicle attributes tested.

Regional differences include:

- Sales representatives in British Columbia, Quebec, and Ontario report higher levels of knowledge related to warranties, vehicle range on a full charge, tax incentives and battery life
- Sales representatives in Quebec and Ontario report higher levels of knowledge related to cost of ownership
- Sales representatives in Ontario report higher levels of knowledge related to charging station networks

Exhibit 2.2.a. Knowledge of electric vehicles by annual sales

| \% Very Knowledgeable | Total |  | Annual Electric Vehicle Sales |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Base $=$ actual | $(178)$ | None <br> $(25)$ | $1-5$ <br> $(65)$ | $6-49$ <br> $(58)$ | $50+$ |  |
| Warranties | $67 \%$ | $50 \%$ | $64 \%$ | $69 \%$ | $83 \%$ |  |
| Vehicle range on full charge | $65 \%$ | $40 \%$ | $56 \%$ | $77 \%$ | $87 \%$ |  |
| Charging methods | $61 \%$ | $55 \%$ | $48 \%$ | $74 \%$ | $73 \%$ |  |
| Tax incentives | $50 \%$ | $19 \%$ | $29 \%$ | $70 \%$ | $83 \%$ |  |
| Battery life | $47 \%$ | $36 \%$ | $31 \%$ | $62 \%$ | $63 \%$ |  |
| Cost of ownership | $41 \%$ | $31 \%$ | $20 \%$ | $57 \%$ | $63 \%$ |  |
| Cost of operation | $35 \%$ | $19 \%$ | $24 \%$ | $43 \%$ | $60 \%$ |  |
| Charging station networks | $31 \%$ | $25 \%$ | $19 \%$ | $38 \%$ | $50 \%$ |  |

Q13. Still thinking about EVs how knowledgeable would you say you are about the following topics? Would you say you are very knowledgeable, somewhat knowledgeable, not very knowledgeable, or not at all knowledgeable on...

Exhibit 2.2.b. Knowledge of electric vehicles by number of sales representatives

| \% Very Knowledgeable | Total | Number of Sales Representatives |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Base $=$ actual | (178) | Less than 5 <br> (48) | 5 to 9 <br> (88) | 10 plus <br> (42) |
| Warranties | 67\% | 56\% | 68\% | 75\% |
| Vehicle range on full charge | 65\% | 51\% | 69\% | 74\% |
| Charging methods | 61\% | 53\% | 64\% | 65\% |
| Tax incentives | 50\% | 28\% | 53\% | 68\% |
| Battery life | 47\% | 33\% | 50\% | 54\% |
| Cost of ownership | 41\% | 31\% | 40\% | 52\% |
| Cost of operation | 35\% | 21\% | 40\% | 42\% |
| Charging station networks | $31 \%$ | 24\% | 34\% | 34\% |

Q13. Still thinking about EVs how knowledgeable would you say you are about the following topics? Would you say you are very knowledgeable, somewhat knowledgeable, not very knowledgeable, or not at all knowledgeable on...

Exhibit 2.2.c. Knowledge of electric vehicles by region

| \% Very <br> Knowledgeable | Total |  | Region |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Q13. Still thinking about EVs how knowledgeable would you say you are about the following topics? Would you say you are very knowledgeable, somewhat knowledgeable, not very knowledgeable, or not at all knowledgeable on...

### 2.3. Training on Electric Vehicles

### 2.3.1. Received training on electric vehicles

Seventy-nine ${ }^{3}$ per cent of all sales representatives have received at least some training on electric vehicles. The proportion of sales representatives who have received training is not impacted by the size of the dealership. The number of sales representatives who have received training on electric vehicles is however, related to the number of annual sales for the dealership. For example, dealerships with lower annual sales (<six per year) are more likely to have less than five sales representatives who have received training ( $55 \%$ vs $31-27 \%$ ) compared to those with higher annual electric vehicle sales. This suggests that if dealerships have sales representatives that are trained on electric vehicles they are more likely to sell more electric vehicles.

Regional differences also exist regarding the number of sales representatives who have received training on electric vehicles. Fewer sales representatives in the Atlantic and Quebec have received training compared to sales representatives in Ontario, the Prairies and British Columbia. More dealerships in the Atlantic (57\%) and Quebec (53\%) have less than five sales representatives receiving training compared to dealerships in Ontario and the Prairies (28\% each). Dealerships in Ontario (22\%), the Prairies (32\%) and British Columbia (26\%) are more likely to have more than 10 sales reps who have received training on electric vehicles compared to those in the Atlantic (0\%) and Quebec (6\%).

[^1]Exhibit 2.3.1.a Received training on electric vehicles by annual sales

| $\begin{array}{l}\text { Number of Sales } \\ \text { Representatives }\end{array}$ | Total |  | Annual Electric Vehicle Sales |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |$]$

Q9. About how many car sales representatives, including yourself, that sell EVs have received any training on these types of vehicles?

Exhibit 2.3.1.b Received training on electric vehicles by region

| Number of Sales <br> Representatives | Total | Region |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(178)$ | Atlantic | Quebec | Ontario | Prairies |  |
|  |  | $(14)$ | $(49)$ | $(60)$ | $(32)$ |  |
| Under 5 (Net) | $38 \%$ | $57 \%$ | $53 \%$ | $28 \%$ | $28 \%$ | $39 \%$ |
| 5 To 9 (Net) | $37 \%$ | $36 \%$ | $41 \%$ | $42 \%$ | $30 \%$ | $26 \%$ |
| 10 or more | $19 \%$ | - | $6 \%$ | $22 \%$ | $32 \%$ | $26 \%$ |
| None | $6 \%$ | $7 \%$ | - | $8 \%$ | $9 \%$ | $9 \%$ |

Q9. About how many car sales representatives, including yourself, that sell EVs have received any training on these types of vehicles?

### 2.3.2. Frequency of training

Most sales representatives (71\%) receive training on electric vehicles multiple times per year. Only a small proportion receive it annually (21\%) or less often (5\%). Sales representatives in Quebec are less likely to receive training multiple times per year compared to those in Ontario ( $57 \%$ vs $78 \%$ ).

Exhibit 2.3.2. Frequency of training by region

| Frequency of <br> Training | Total |  | Region |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Q10. How often does the average car sales representative at your dealership receive training, including training updates or refreshers, related to EVs?

### 2.3.3. Training topics

Training content varies; however most sales representatives have received training on charging methods ( $97 \%$ ), warranties ( $96 \%$ ), vehicle range on a full charge ( $96 \%$ ), cost of ownership ( $89 \%$ ), battery life ( $88 \%$ ) and cost of operation ( $84 \%$ ). Fewer said they received training on administering incentives (53\%) or vehicle specifications (21\%) or features (9\%). A handful reported test-driving an electric vehicle as part of the training (4\%).

Region seems to have little impact on training topics except for incentive training where sales representatives in Ontario and British Columbia are more likely to receive training on administering incentives than those in Quebec ( $75 \%$ and $76 \%$ respectively vs. 29\%). ${ }^{4}$

[^2]Exhibit 2.3.3. Training topics

| Training Topics | Total |
| :--- | :---: |
| Base $=$ actual | $(165)$ <br> $\%$ |
| Charging methods | $97 \%$ |
| Warranties | $96 \%$ |
| Vehicle range on a full charge | $96 \%$ |
| Cost of ownership | $89 \%$ |
| Battery life | $88 \%$ |
| Cost of operation | $84 \%$ |
| Charging station networks | $78 \%$ |
| Incentive or rebate training | $53 \%$ |
| Vehicle specification | $21 \%$ |

Q11. Which of the following types of training on EVs have you received? (Incentive or rebate training response only) Q12. And, did the training cover any of the following about EVs?

### 2.3.4. Training Method

Online training courses/webinars were the most common type of training received (94\%) followed by on-the-job training (69\%) and roadshow training from manufacturers (63\%). A small minority undertook classroom training (5\%), or self-study (5\%) with a variety of materials such as manufacturer materials, online searches and comparative studies.

Sales representatives at dealerships with more employees (10+) were more likely to undertake on-the-job training compared to those with less than 10 employees ( $85 \%$ vs $59-65 \%$ ) as were those in British Columbia (90\%), Ontario (84\%) and the Prairies (75\%) compared to their eastern counterparts in the Atlantic (54\%) and Quebec (41\%).

## Exhibit 2.3.4.a Training method

|  | Total |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $(167)$ | Less than 5 <br> $(44)$ | to 9 <br> $(82)$ |  |
| Online training course or webinar | $94 \%$ | $100 \%$ | $88 \%$ | $100 \%$ |
| On the job training | $69 \%$ | $59 \%$ | $65 \%$ | $85 \%$ |
| Roadshow training from the <br> manufacturer | $63 \%$ | $71 \%$ | $54 \%$ | $74 \%$ |
| Classroom Training | $5 \%$ | $5 \%$ | $5 \%$ | $5 \%$ |
| Self-study | $5 \%$ | $2 \%$ | $3 \%$ | $4 \%$ |
| Did not personally receive training | $1 \%$ | - | $2 \%$ | - |

Q11. Which of the following types of training on EVs have you received?

Exhibit 2.3.4.b Training method

|  | Total |  | Region |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Base $=$ actual |  | Atlantic | Quebec | Ontario | Prairies | British <br> Columbia |  |
| Online training course <br> or webinar | $94 \%$ | $100 \%$ | $88 \%$ | $95 \%$ | $(29)$ | $97 \%$ | $100 \%$ |
| On the job training | $69 \%$ | $54 \%$ | $41 \%$ | $84 \%$ | $75 \%$ | $90 \%$ |  |
| Roadshow training <br> from the manufacturer | $63 \%$ | $54 \%$ | $78 \%$ | $56 \%$ | $63 \%$ | $57 \%$ |  |
| Training on <br> administering <br> incentives | $53 \%$ | $31 \%$ | $29 \%$ | $75 \%$ | $46 \%$ | $76 \%$ |  |
| Classroom Training | $5 \%$ | - | $10 \%$ | $2 \%$ | $6 \%$ | - |  |
| Self-study | $5 \%$ | - | $6 \%$ | $4 \%$ | $6 \%$ | - |  |
| Did not personally <br> receive training | $1 \%$ | - | $2 \%$ | - | $3 \%$ | - |  |

Q11. Which of the following types of training on EVs have you received?

### 2.4. Challenges and Barriers to Selling Electric Vehicles

### 2.4.1. Challenges

Sales representatives were asked to identify, unprompted, the main challenges faced when trying to sell electric vehicles. A number of themes emerged including a lack of consumer understanding or buy-in, commercial issues such as availability, battery concerns, cost concerns and incentives.

More specifically, sales representatives noted the following challenges:

- The cost of the vehicles being high or expensive (23\%)
- Supply issues or low availability (21\%)
- Lack of consumer understanding about electric vehicles (17\%)
- Reluctance /skeptical about new technology (17\%)
- Lack of consumer understanding about electric vehicles' range (11\%)
- No incentive program (9\%)
- Low consumer interest (7\%)
- Lack of local charging infrastructure (7\%)
- Concerns about battery life/durability/efficiency (5\%)
- Difficulty explaining the technology to consumers (5\%)
- Lack of training for sales reps (4\%)
- The impact of Canada's climate/winter on battery life (4\%)
- Lack of models such as SUV/pick-up truck (4\%)
- The autonomy of EVs (i.e., the ability of the vehicle to have the same independence as a gas or diesel-powered road vehicle) (4\%)
- Lack of consumer understanding related to charging (3\%)
- Lack of consumer understanding (charging) (3\%)

Sales representatives who work at dealerships with lower annual electric vehicles sales were more likely to cite many of the identified challenges. For example, those with a higher number of sales are more likely to identify supply issues (34\%) as a challenge. And, while most regions cite similar challenges, there are a few that differ by region. Specifically:

- Quebec sales representatives are more likely to cite a lack of consumer understanding about electric vehicles (24\%) as a barrier.
- Ontario sales representatives cite issues related to vehicle range (23\%) and skepticism about the technology ( $25 \%$ ) compared to sales representatives in other regions.
- Sales representatives in the Atlantic and the Prairies are more likely to cite the lack of incentive programs ( $43 \%$ and $19 \%$ respectively) and the cost of the vehicles ( $43 \%$ and $39 \%$ respectively) compared to those in other regions.

Exhibit 2.4.1.a Challenges by annual sales

| Base $=$ actual |  | None | 1-5 EVs | 6-49 EVs | $50+\mathrm{EVs}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (178) | (25) | (65) | (58) | (30) |
| The cost of the vehicle is high/expensive | 23\% | 35\% | 29\% | 17\% | 13\% |
| Supply issues or low availability/not enough supply of EVs | 21\% | 21\% | 20\% | 21\% | 20\% |
| Lack of consumer understanding about EVs | 17\% | 12\% | 13\% | 22\% | 20\% |
| People are reluctant/skeptical about this new technology/getting the customers to trust the new product | 17\% | 18\% | 20\% | 10\% | 20\% |
| Lack of consumer understanding related to a EV's range | 11\% | 8\% | 11\% | 13\% | 14\% |
| Unlike other provinces, no important rebate/incentives for buying EV | 9\% | 20\% | 10\% | 6\% | 3\% |
| Low consumer interest in EVs | 7\% | 4\% | 10\% | 6\% | 4\% |
| Lack of local charging infrastructure | 7\% | 8\% | 8\% | 8\% | 4\% |
| Battery life/durability/efficiency | 5\% | 4\% | 4\% | 10\% | - |
| Explain the technology/ the systems | 5\% | 4\% | 4\% | 5\% | 10\% |
| Lack of training for sales representatives | 4\% | 4\% | 4\% | 5\% | 4\% |
| Canada's climate/hard winter (reduces the battery life) | 4\% | 4\% | 9\% | - | 3\% |
| The autonomy of the EV's | 4\% | - | 6\% | 5\% | - |
| Lack of some types of models (SUV/pick-up truck) | 4\% | 4\% | 4\% | 4\% | 3\% |
| Incentive administration | 3\% | 4\% | 5\% | 2\% | - |
| Lack of consumer understanding related to charging | 3\% | 4\% | 2\% | 4\% | 7\% |

Q17. What would you say are the main challenges new car sales representatives face when trying to sell EVs?

Exhibit 2.4.1.b Challenges by region

| Challenges | Total | Region |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Base = actual | (178) | Atlantic (14) | Quebec <br> (49) | Ontario (60) | Prairies <br> (32) | British Columbia <br> (23) |
| The cost of the vehicle is high/expensive | 23\% | 43\% | 22\% | 12\% | 39\% | 17\% |
| Supply issues or low availability/not enough supply of EVs | 21\% | 21\% | 12\% | 27\% | 18\% | 26\% |
| Lack of consumer understanding about EVs | 17\% | 7\% | 24\% | 15\% | 16\% | 13\% |
| People are reluctant/skeptical about this new technology/getting the customers to trust the new product | 17\% | 14\% | 10\% | 25\% | 16\% | 9\% |
| Lack of consumer understanding related to a EV's range | 11\% | 7\% | - | 23\% | 9\% | 9\% |
| Unlike other provinces, no important rebate/incentives for buying EV | 9\% | 43\% | 2\% | 2\% | 19\% | 4\% |
| Low consumer interest in EVs | 7\% | 14\% | 4\% | 5\% | 8\% | 9\% |
| Lack of local charging infrastructure | 7\% | 14\% | 2\% | 7\% | 9\% | 13\% |
| Battery life/durability/efficiency | 5\% | 7\% | 8\% | 5\% | 3\% | 4\% |
| Explain the technology/ the systems | 5\% | - | 6\% | 5\% | 7\% | 4\% |
| Lack of training for sales representatives | 4\% | 7\% | 2\% | 7\% | 3\% | 4\% |
| Canada's climate/hard winter (reduces the battery life) | 4\% | - | 2\% | 2\% | 14\% | 4\% |
| The autonomy of the EV's | 4\% | - | 14\% | - | - | - |
| Lack of some types of models (SUV/pick-up truck) | 4\% | - | 4\% | 5\% | 5\% | - |
| Incentive administration | 3\% | - | - | 7\% | - | 4\% |
| Lack of consumer understanding related to charging | 3\% | - | 2\% | 7\% | - | 4\% |

Q17. What would you say are the main challenges new car sales representatives face when trying to sell EVs?

### 2.4.2. Barriers

When asked about barriers to selling electric vehicles from a prompted list, supply issues or low availability ( $73 \%$ ) was reported as the most common barrier, followed closely by the lack of consumer understanding related to an electric vehicle's range (71\%), a lack of local charging infrastructure (69\%) and lack of consumer understanding about electric vehicles in general (67\%). More than one-third cited lower profit margins for electric vehicles (37\%) and lack of training for sales representatives (35\%). Only one-quarter indicated incentive administration (24\%) was a barrier.

## Exhibit 2.4.2. Barriers

| Barriers | Total |
| :--- | :---: |
| Base = actual | $(178)$ |
| Supply issues or low availability | $73 \%$ |
| Lack of consumer understanding related to an EV's range | $71 \%$ |
| Lack of local charging infrastructure | $69 \%$ |
| Lack of consumer understanding about EVs | $67 \%$ |
| Lack of consumer understanding related to charging | $57 \%$ |
| Low consumer interest in EVs | $53 \%$ |
| Lower profit margins on EVs | $47 \%$ |
| Lack of training for sales representatives | $37 \%$ |

Q30. You may have mentioned these already, but would you consider any of the following, barriers to selling EVs?

## 3. Methodology

### 3.1. Methodological Overview

A telephone survey was conducted from January 19 to February 7, 2018 among new car sales representatives at new car dealerships in Canada who are certified to sell electric vehicles. In total 178 telephone interviews were conducted, using a list of new car dealerships provided by NRCan. The list was dialed randomly and soft targets/quotas for regional representation were included.

## Questionnaire

Based on the objectives of the research and discussion with the Project Authority, TNS drafted the questionnaire. The resulting survey included 17 questions that were primarily closed-ended. TNS translated the survey into French. The survey took approximately 10 minutes to complete.

## Survey Pretest

A survey pretest was conducted on January 18, 2018 under live field conditions. Results of the pretest indicated some revisions to the language were required to ensure clarity among respondents and shortening of the survey length to adhere to the desired 10 -minute length. The survey was re-drafted to address these issues.

## Sample Design and Selection

As mentioned previously, the sample list was provided by NRCan and was comprised of new car dealerships that sell electric vehicles in Canada. The list was dialed randomly and soft targets/quotas for regional representation were included. Our first step was to ensure the dealership sold electric vehicles and if they did not they were thanked and terminated from the survey. If they qualified, respondents were offered a $\$ 30.00$ incentive to participate in the survey.

## Survey Administration

The telephone survey was conducted using computer assisted telephone interviewing (CATI) technology. CATI ensures the interview flows as it should with pre-programmed skip patterns. It also controls responses to ensure appropriate ranges and data validity. Sample is imported directly into the survey to ensure accurate recording of sample variables such as region. The system also controls automated scheduling and call-backs to ensure all appointments are adhered to.

Surveys were conducted in English or French as chosen by the respondent. Interviewing was conducted by fully trained interviewers and supervisors. A minimum of five per cent of all interviews were independently monitored and validated in real time.

All participants were informed of the general purpose of the research, they were informed of the sponsor and the supplier and that all their responses would be confidential. As well, the survey was registered with the Survey Registration System.

## Non-response Bias

The response rate for this survey was $21.68 \%$. The expected response rate for a telephone survey of this type with a similar field length is less than one per cent. In order to maximize response TNS undertook the following:

- A minimum of 8 call backs were made before retiring a number
- Call backs are rescheduled at different times and days in order to maximize the possibility of an answer.
- Appointments and call backs are offered at flexible times so respondents may take the survey at the most convenient time.
- Offered an incentive to participate.

As with all samples, there is a possibility of non-response bias. In particular, this survey does not include members of the population who only work on weekends or who may have been ill or on leave during the field period. In addition, some groups within the population are systemically less likely to answer surveys. To address the issue of response bias, data were weighted to be regional representative of electric car dealership in Canada. Complete weighting details can be found in the following section.

## Weighting

Weighting adjustments were applied to the final edited, clean data to ensure that the data were regionally representative of electric car dealership in Canada. The file provided by NRCan was used to determine regional proportions.

Table 3.1.a Weighting

| Target | Region |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Atlantic | Quebec | Ontario | Prairies | British <br> Columbia <br> + Territories |
| Actual | 178 | 14 | 49 | 60 | 32 | 23 |
| Weighted | 178 | 14 | 46 | 61 | 37 | 21 |

## Margin of Error

With a population of 2066 electric car dealerships, a sample size of 178 provides a margin of error of 7.08 at the $95 \%$ level.

## Response Rate

A total of 1,637 numbers were dialled, of which $n=178$ completed the survey. The overall response rate achieved for the telephone study was $21.68 \%$. The following table outlines the sample disposition and response rate as per the MRIA guidelines.

Table 3.1.b: Response Rate Calculation

| TOTAL NUMBERS ATTEMPTED | 1637 |
| :---: | :---: |
| Invalid | 55 |
| NIS |  |
| Fax/Modem | 1 |
| Business/Non-Residential |  |
| Unresolved (U) | 839 |
| Busy |  |
| No Answer | 243 |
| Answering Machine |  |
| In-scope - non-responding (IS) | 400 |
| Illness, incapable |  |
| Selected respondent not available | 31 |
| Household refusal |  |
| Respondent refusal | 330 |
| Qualified respondent break-off |  |
| In-scope - Responding units (R) | 343 |
| Language disqualify |  |
| No one 18+ | 0 |
| Quota full |  |
| Other disqualify | 165 |
| Completed interviews |  |

## Tabulated Data

Detailed tables are included under separate cover.

## 4. Appendix B: Survey Instrument:

### 4.1. English Survey

## B001 - BLOCK_SCREENER: SCREENER

Begin block

## Q001 - TEL_INTRO: TELEPHONE INTRO

## Single coded

## Not back

Hello, Can I speak to a car sales representative? IF NECESSARY-
Hello/Bonjour my name is INSERT NAME, from Kantar TNS. We are currently conducting a survey on behalf of the Government of Canada on electric vehicle support available to consumers. The information collected will be used to inform and develop public policy.

Your participation is voluntary and your responses will be kept entirely confidential and anonymous. This survey is registered with the Marketing Research and Intelligence Association (MRIA) and will take about 10 minutes to complete.

Would you prefer that I continue in English or French? Préférez-vous continuer en français ou en anglais?

> [IF REQUIRED: The sales representative will receive an incentive of $\$ 30$ dollars upon qualification and completion of this survey (please make sure the gatekeeper does not do the survey as a result of this)
> [IF ASKED: Kantar TNS is a professional research company hired by the Government of Canada to conduct this survey]
> [IF ASKED: MRIA \# 20180112-037V and the portal is surveyverification.ca]
> [IF ASKED: Kantar TNS privacy policy can be found at http://www.tnscanada.ca/privacy-policy.htmI]

## Normal

1 English
2 French

## Q002 - DEALERSHIP_SELLS_EV: WHETHER DEALERSHIP SELLS Multi coded ELECTRIC OR HYBRID VEHICLES

## Not back | Min = 1

Which of the following types of new, on-road vehicles does your dealership sell to consumers?
READ LIST ONE AT A TIME AND GET A YES/NO(ONLY RECORD YES)

## Random

1 Gas or diesel powered
2 Plug-in Hybrid electric vehicles or PHEVs
3 Battery Electric on-road vehicles or BEVs
998 None of the above *Position fixed *Exclusive

## Scripter notes: MUST CHOOSE PHEV or BEV TO CONTINUE

## Q003 - SPEAK_TO_EV_SALESPERSON: SALES PERSON REQUEST

## Not back

Can I speak to a car sales representative responsible for selling Plug-in Electric Vehicles (PHEVs) or Battery Electric Vehicles (BEVs) at your dealership?
SKIP IF SPEAKING TO SALESPERSON

## Normal

```
1 YES-CONTINUE
```

2 NOT AT THIS TIME- ACQUIRE NAME AND ARRANGE CALLBACK
3 NO-TERMINATE

## Q004 - TEL_INTRO_SALES_REP: TELEPHONE INTRO TO SALES Single coded REP

## Not back

Hello/Bonjour my name is INSERT NAME, from Kantar TNS. We are currently conducting a survey on behalf of the Government of Canada on electric vehicle support available to consumers. The information collected will be used to inform and develop public policy.

Your participation is voluntary and you will receive an incentive of $\$ 30$ dollars upon qualification and completion of this survey. Your responses will be kept entirely confidential and anonymous. This survey is registered with the Marketing Research and Intelligence Association (MRIA) and will take about 10 minutes to complete.

Would you prefer that I continue in English or French? Préférez-vous continuer en français ou en anglais?
[IF ASKED: Kantar TNS is a professional research company hired by the Government of Canada to conduct this survey]
[IF ASKED: MRIA \# 20180112-037V and the portal is surveyverification.ca]
[IF ASKED: Kantar TNS privacy policy can be found at http://www.tnscanada.ca/privacy-policy.html]

## Normal

1 English
2 French
999 IF REFUSED- OFFER ONLINE OPTION AND COLLECT/CONFIRM EMAIL ADDRESS

## Q032 - DISPL_VEHICLE_CLARIFICATION: DISPLAY ABOUT Text VEHICLE CLARIFICATION

## Not back

During this survey I will be referring to electric vehicles as "EV's". For the purposes of this survey, EV's will be defined as any Plug in, or Battery Electric vehicles, and do not include hybrids.

```
Q005 - PERSONALLY_SELL_EV: WHETHER PERSONALLY SELL Single coded
ELECTRIC VEHICLES
```


## Not back

Are you personally able to sell EVs?

## Normal

```
1 Yes
```

2 No

Scripter notes: IF NO, ROUTE TO: SPEAK_TO_EV_SALESPERSON: SALES PERSON REQUEST


```
Q009 - REPS_TRAINED: AMOUNT OF REPS TRAINED TO SELL Numeric
EV
```

Not back \| Max = 999
About how many car sales representatives, including yourself, that sell EVs have received any training on these types of vehicles?

$$
\text { Ask only if Q009 - REPS_TRAINED > } 0
$$

Q010 - FREQ_TRAINING: FREQUENCY OF TRAINING Single coded

## Not back

How often does the average car sales representative at your dealership receive training, including training updates or refreshers, related to EVs?

|  | READ LIST |
| :--- | :--- |
| Normal |  |
| 1 | Only once |
| 2 | Less than once a year |
| 3 | Once per year |
| 4 | $2-3$ times per year |
| 5 | 4 or more times per year |
| $6 \quad$ Never |  |
| 999 | Don't know *Position fixed *Exclusive |

$$
\text { Ask only if Q009 - REPS_TRAINED > } 0
$$

## Q011 - TYPES_TRAINING: TYPES OF TRAINING RECEIVED Multi coded

## Not back | Min = 1

Which of the following types of training on EVs have you received?

## READ LIST ONE AT A TIME AND GET A YES/NO(ONLY RECORD YES)

## Random

1 Online training course or webinar
2 Roadshow training from the manufacturer
3 Training on administering incentives
4 On the job training
5 Anything others: specify
6 Did not personally receive training

## Ask only if Q011 - TYPES OF TRAINING NOT 6

## Q012 - TRAINING_CONTENT: CONTENT OF TRAINING

Not back $\mid$ Min $=1$
And, did the training cover any of the following about EVs?

## READ LIST ONE AT A TIME AND GET YES/NO (ONLY RECORD YES)

## Random

1 Battery life
2 Warranties
3 Cost of ownership
4 Cost of operation
5 Charging methods
6 Charging station networks
7 Vehicle range on a full charge
8
9 Any other training?: Specify: $\qquad$
998 None of the above *Position fixed *Exclusive

## Q013 - KNOWLEDGE_RATINGS: KNOWLEDGE RATINGS

 Matrix
## Not back | Number of rows: 9 | Number of columns: 4

Still thinking about EVs how knowledgeable would you say you are about the following topics? Would you say you are very knowledgeable, somewhat knowledgeable, not very knowledgeable, or not at all knowledgeable on...

```
READ ITEMS, AND REPEAT ANSWER LIST AS NECESSARY
```

Rows: Random | Columns: Normal
Rendered as Dynamic Grid

|  | Very knowledgeable | Somewhat knowledgeable | Not very knowledgeable | Not at all knowledgeable |
| :---: | :---: | :---: | :---: | :---: |
| Battery life | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Warranties | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Cost of ownership | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Cost of operation | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Charging methods | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Charging station networks | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Tax incentives | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Vehicle range on full charge | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

## Q014 - DEALERSHIP_AMENITIES: DEALERSHIP AMENITIES

## Not back | Min = 1

Which of the following amenities or services related to EVs do you have at your dealership?

## READ LIST ONE AT A TIME AND GET YES/NO(ONLY RECORD YES)

## Random

1 Level 1 or 2 electric vehicle charging stations
2 Level 3 or 4 electric vehicle charging stations
3 Staff to help consumers with tax incentive paperwork (DISPLAY ONLY IN ON, QC AND BC)
4 Advertising by the manufacturer specifically for EVs
5 Advertising by the dealership specifically for EVs
998 None of the above *Position fixed *Exclusive
Scripter notes: CONFIRM SAMPLE FILE HAS PROVINCE CODE/REGION CODE FOR ITEM 1. IF NOT, WE CAN ASK IN ALL PROVINCES.

## Q017 - BARRIERS_OPEN: BARRIERS TO SELLING MORE <br> Open <br> VEHICLES

## Not back

What would you say are the main challenges new car sales representatives face when trying to sell EVs?

```
PROBE: ANY OTHER Challenges or BARRIERS?
```


## Q030 - SPECIFIC_BARRIERS: SPECIFIC BARRIERS

Multi coded

## Not back | Min = 1

You may have mentioned these already, but would you consider any of the following, barriers to selling EVs?

## READ LIST ONE AT TIME AND GET YES/NO

## Random

1 Incentive administration [DISPLAY ONLY IN ON, QC AND BC]
2 Lack of training for sales representatives
3 Lack of consumer understanding about EVs
4 Low consumer interest in EVs
5 Lack of consumer understanding related to an EV's range
6 Lack of consumer understanding related to charging
7 Supply issues or low availability
8 Increased effort required to sell EVs
9 Lower profit margins on EVs
10 Lack of local charging infrastructure
998 None of the above *Position fixed *Exclusive
Scripter notes: CONFIRM SAMPLE FILE HAS PROVINCE CODE/REGION CODE FOR ITEM 1. IF NOT, WE CAN ASK IN ALL PROVINCES.

## B002-BLOCK_MAIN: MAIN SURVEY

End block

## B003-BLOCK_DEMOGRAPHICS: DEMOGRAPHICS

Begin block

## Q018 - DEMO_DISP: DEMOGRAPHICS DISPLAY

## Text

## Not back

We are almost done, just a few more questions for classification purposes.

```
Q021 - NUM_GV_SALES_DEALERSHIP: NUMBER OF GAS Numeric
POWERED VEHICLES DEALERSHIP SELLS PER YEARS
```

Not back \| Max = 9999
Approximately, how many gas or diesel powered road vehicles does your dealership sell per year?
$\square$
Q022 - NUM_EV_SALES_DEALERSHIP: NUMBER OF EV Numeric
DEALERSHIP SELLS PER YEARS

Not back \| Max = 9999
And, how many EVs does your dealership sell per year?
$\square$

## Q023 - NUM_EV_NEXT_YEAR: NUMBER OF EV EXPECTED TO SELL NEXT YEAR

Not back | Max $=999$
Approximately, how many EVs do you personally expect to sell in 2018?

```
Q024 - AGE: AGE

\section*{Not back | Min = 18 | Max = 99}

What is your age?
\(\square\)
Scripter notes: ADD REFUSED OPTION

\section*{Q025 - AGE_GROUP: AGE_GROUP Single coded}

\section*{Not back}

Would you be able to tell me which of the following groups you fall in?

\section*{Normal}
```

1 18-24

```
2 25-34
3 35-44
4 45-54
5 55-64
6 65+

7 Prefer not to say

\section*{Not back}

What is the postal code of your dealership?

\section*{Scripter notes: Add REFUSED ACCEPT FIRST THREE LETTERS}

\section*{AUTO CODE REGION IN NEXT QUESTION}

Newfoundland and Labrador: A Nova Scotia: B
Prince Edward Island: C
New Brunswick: E Eastern Quebec: G Metropolitan Montréal: H Western Quebec: J Eastern Ontario: K Central Ontario: L
Metropolitan Toronto: M
Southwestern Ontario: N
Northern Ontario: P
Manitoba: R
Saskatchewan: S
Alberta: T
British Columbia: V
Northwest Territories and Nunavut: X

> Yukon: Y

\section*{Q029 - COMMUNITY_TYPE: TYPE OF COMMUNITY}

\section*{Not back}

Is your dealership in an urban, suburban, or rural community?

\section*{Normal}

1 Urban
2 Suburban
3 Rural

\section*{Q027-PROV: PROVINCE \\ Not back \\ Which province do you live in?}

\section*{READ LIST IF NECESSARY}

\section*{Normal}

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

\section*{Scripter notes: ASK IF POSTAL CODE REFUSED}

\section*{B003 - BLOCK_DEMOGRAPHICS: DEMOGRAPHICS}

\section*{Q028 - END_DISP: END DISPLAY}

\section*{Not back}

Thank you for taking the time to complete this survey. Your responses will be held in the strictest confidence and will only be used for research purposes.

To receive your incentive, please provide your name, mailing address, and postal code and we will send you a cheque within 2-3 weeks.
\begin{tabular}{|c|}
\hline \\
\hline Scripter notes: Set up boxes for Name, Address, Postal code, collect email address for online \\
respondents \\
\hline
\end{tabular}```


[^0]:    ${ }^{1}$ Proportion derived from the average number of sales representatives who have received training and the average number of sales representatives.
    ${ }^{2}$ Self-study includes self-training, self-taught by looking up info on the internet or other sources, studying materials received from manufacturer, long term evaluations and comparative studies

[^1]:    ${ }^{3}$ Derived using the average number of sales representatives (7.86) and the average number who have received training (6.22).

[^2]:    ${ }^{4}$ Note: incentives are only available in Quebec, Ontario and British Columbia and as such only representatives in these regions were asked about incentive training.

