



Department for  
**Infrastructure**

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# Attitudes to Electric Vehicles in Northern Ireland 2019/2020

## Findings from the Continuous Household Survey 2019/2020



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Gníomhaireacht Thuaisceart Éireann  
um Staitisticí agus Taighde

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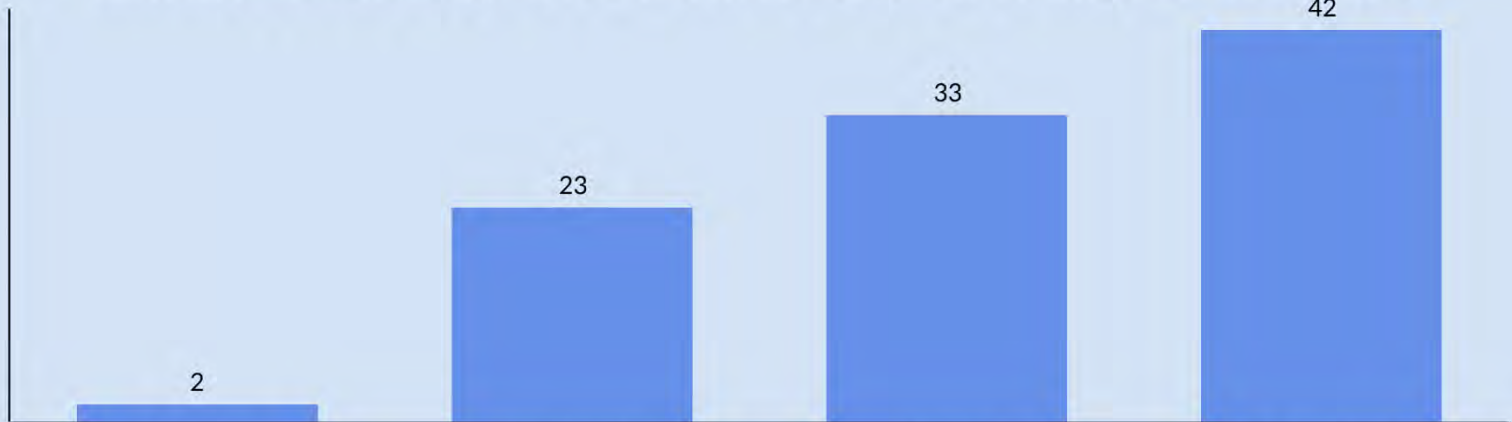
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This publication and extended data tables are also available at [the Department for Infrastructure Electric Vehicles Research webpage](#). (Opens in a new window)

Findings from the Continuous Household Survey 2019/2020

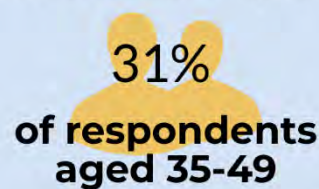
## Likelihood to buy an e-vehicle as your next purchase (%)



If so, when would you be likely to purchase one?



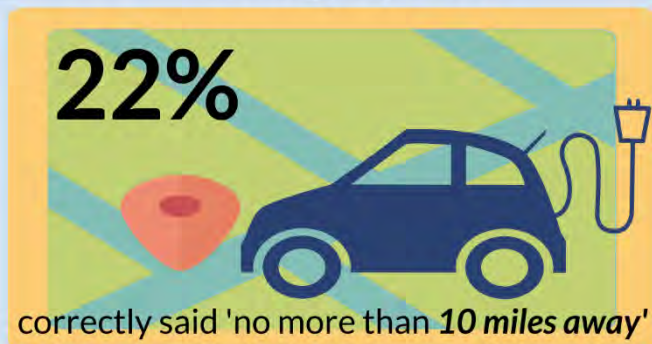
Respondents likely to purchase an e-vehicle



said they would 'definitely' or 'strongly consider' purchasing an e-vehicle

## Distance to the nearest public charge point

## Access to vehicles



own or have access to at least one car or van

## Electric vehicle purchase influencing factors

### Top 3 encouraging factors

Low overall running costs (53%)

Environmentally friendly (45%)

Up to £3,500 grant towards purchase of an electric vehicle (51%)

### Top 3 discouraging factors

Purchase price (64%)

Need to re-charge your vehicle (49%)

Vehicle range from one charge - now up to 250 miles (37%)

## KEY POINTS

- Four fifths (80%) of respondents said they 'own or have access to at least one car or van which they can drive'. Almost a fifth (18%) did not have a driving licence and were not asked any further questions on electric vehicles.
- One in 50 respondents (2%) said their next purchase would 'definitely be an electric vehicle' while almost a quarter (23%) said they would 'strongly consider' an electric vehicle for their next purchase.
- Male respondents (28%) and those aged 35-49 (31%) were more likely than females (23%) and other age groups to say that they would 'definitely' buy or 'strongly consider' an electric vehicle as their next vehicle.
- The proportion who said they would 'definitely' buy or 'strongly consider' an electric vehicle for their next purchase was highest amongst those living in Lisburn and Castlereagh District Council (32%) and lowest amongst those living in Fermanagh and Omagh District Council (16%).
- Of those that said they would 'definitely' buy or consider an electric vehicle for their next purchase, over a fifth (21%) said they would be likely to buy 'within the next 2 years' while more than half (51%) said this would be 'between 2 and 5 years' time.
- The main reasons encouraging respondents to buy electric vehicles were 'Low overall running costs' (cited by 53% of respondents) followed by 'up to £3,500 grant towards purchase of an electric vehicle' (51%).
- The main reasons discouraging respondents from buying electric vehicles were 'purchase price' (64% of respondents), 'need to recharge your vehicle' (49%) and 'vehicle range from one charge' (37% of respondents).

## INTRODUCTION

The Department for Infrastructure is committed to encouraging people to drive Ultra Low Emission Vehicles (ULEVs) and to use other sustainable transport options such as public transport, walking and cycling. These priority areas for the Department are designed to deliver clean public transport and active travel options to build connectivity, reduce emissions and promote health and well-being for all.

In 2012, the e-car NI Project consortium introduced electric vehicle charging infrastructure to Northern Ireland. The e-car public charge point network in Northern Ireland is owned, operated and maintained by the Electricity Supply Board (ESB). It comprises 320 22kWh Fast charge points at 160 locations and a further 17 50kWh DC Rapid charge points. Charge points are now also being provided independently by a range of other organisations to provide workplace access and for customers. These can be found at shopping centres, hotels and at some locations in the public sector estate.

To support the introduction of Electric Vehicles, the Office for Low Emission Vehicles (OLEV) provides a range of UK-wide e-car related grants including grants towards the purchase of plug-in cars and vans and grants for home, workplace and residential charge points.

On 18 November 2020, the Prime Minister confirmed that the UK will end the sale of new petrol and diesel cars and vans by 2030, ten years earlier than planned. However, the sale of hybrid cars and vans that can drive a significant distance with no carbon coming out of the tailpipe will be allowed until 2035.

Question modules on attitudes towards Electric Vehicles were previously included in the CHS in 2014/15 and 2015/16, however trend and comparison data is limited as the question set changed significantly in 2019/20. This report presents data from the 2019/20 Continuous Household Survey (CHS) in relation to the Attitudes towards Electric Vehicles in Northern Ireland.

### **Uses of the Data**

This survey was commissioned to obtain information on people's attitudes towards electric cars. It is planned to use the results to inform policy on how to design measures which would encourage the uptake of Ultra Low Emission Vehicles across Northern Ireland and to address barriers to this uptake.

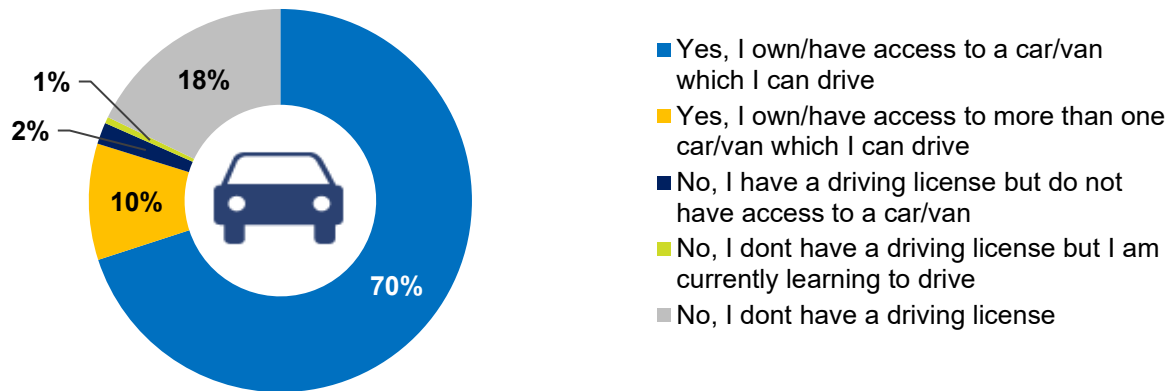
## Part 1: Likelihood to purchase an electric vehicle

### 1.1 Do you currently own or have access to a car or van?

Respondents to the Continuous Household Survey were asked if they 'own or have access to a car or van'. Four fifths (80%) of respondents said they 'own or have access to at least one car or van which they can drive', while 2% stated they had a driving license but no access to a car/van (Figure 1).

Almost a fifth (18%) of respondents said 'no, I don't have a driving license' and were not asked any further questions in this module.

Figure 1: Do you currently own or have access to a car or van?

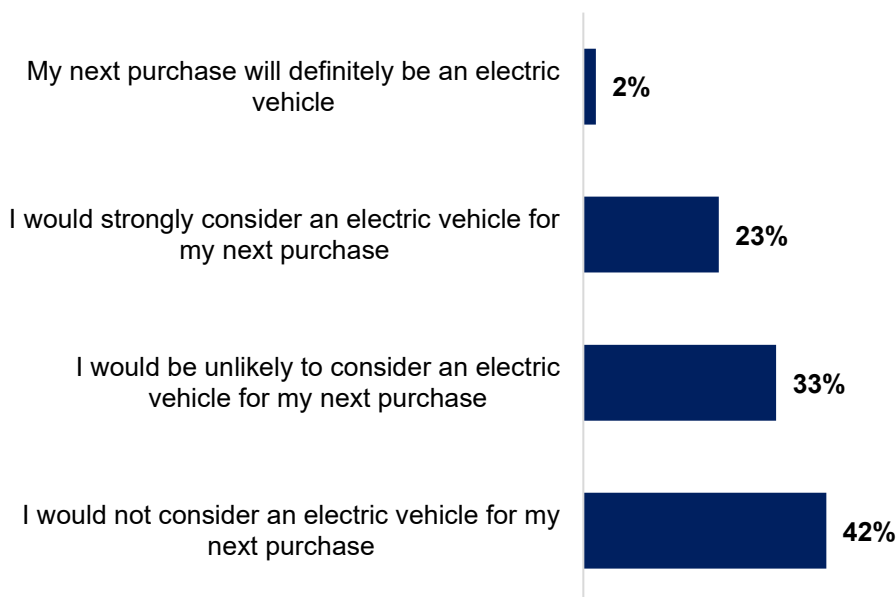


Base: 2,956

### 1.2 Likelihood of purchasing an electric vehicle as your next vehicle?

One in 50 respondents (2%) said their next purchase would 'definitely be an electric vehicle' while almost a quarter (23%) said they would 'strongly consider' purchasing an electric vehicle. One third (33%) said they would be 'unlikely' to consider an electric vehicle and the remaining 42% said they would not consider an electric vehicle as their next purchase (Figure 2).

Figure 2: How likely are you to purchase an electric vehicle as your next vehicle?

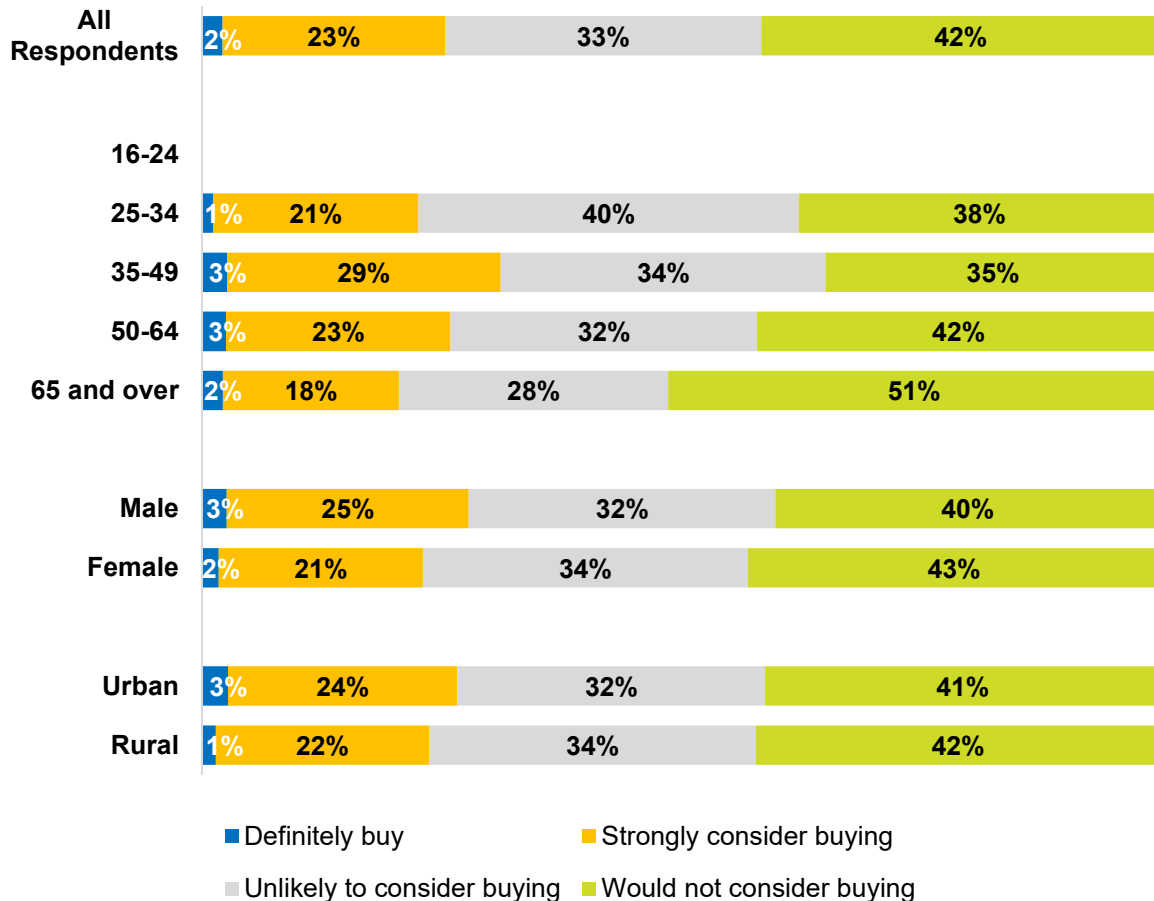


Base: 2,408

## 1.2a Likelihood of purchasing an electric vehicle as your next vehicle? (by age, sex, urban/rural)

Figure 3 presents the proportion of those who answered how likely they would be to purchase an electric vehicle as their next vehicle by age, sex, and urban or rural status.

**Figure 3: How likely are you to purchase an electric vehicle as your next vehicle?+ (by respondent group\*)**



\*due to small sample size, data for those aged 16-24 is not included

+due to rounding percentages may sum to more than 100

Male respondents (28%) were more likely than female respondents (23%) to say they would 'definitely' buy or 'strongly consider' an electric vehicle for their next purchase.

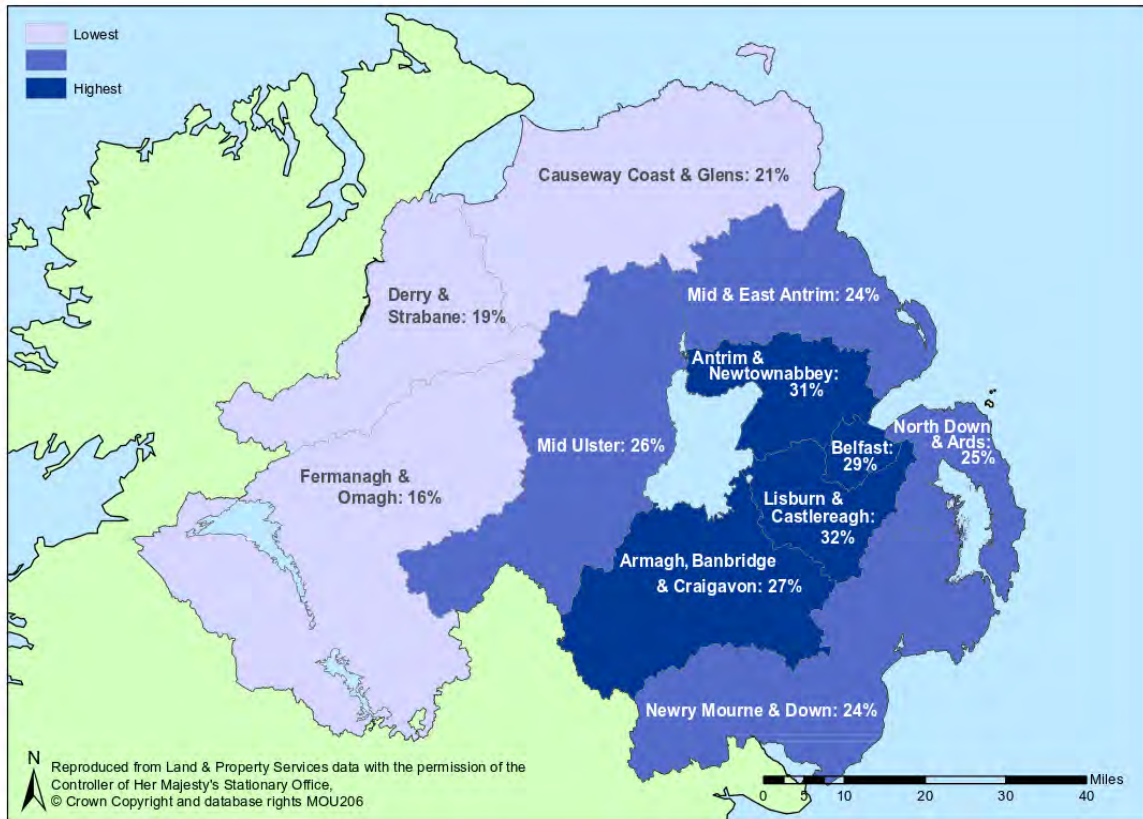
Those aged 35-49 (31%) were more likely to say that they would 'definitely' buy or 'strongly consider' an electric vehicle for their next purchase than any other age group.

There is no difference in likelihood to purchase an electric vehicle between those living in urban and rural areas.



## 1.2b Likelihood of purchasing an electric vehicle as your next vehicle (by local government district)

Figure 4: Likelihood of purchasing an electric vehicle as your next vehicle by local government district

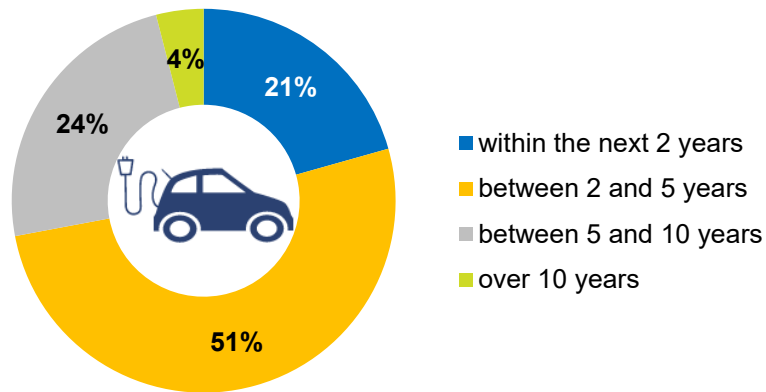


When asked about the likelihood of buying an electric vehicle as their next vehicle, the proportion who said they would 'definitely' buy or 'strongly consider' an electric vehicle for their next purchase was highest amongst those living in Lisburn and Castlereagh District Council (32%) and lowest amongst those living in Fermanagh and Omagh District Council (16%) (Figure 4).

### 1.3 When do you think you would be likely to purchase an electric vehicle?

Respondents who said they would 'definitely' buy or 'strongly consider' an electric vehicle as their next purchase were asked when they would be likely to purchase one (Figure 5).

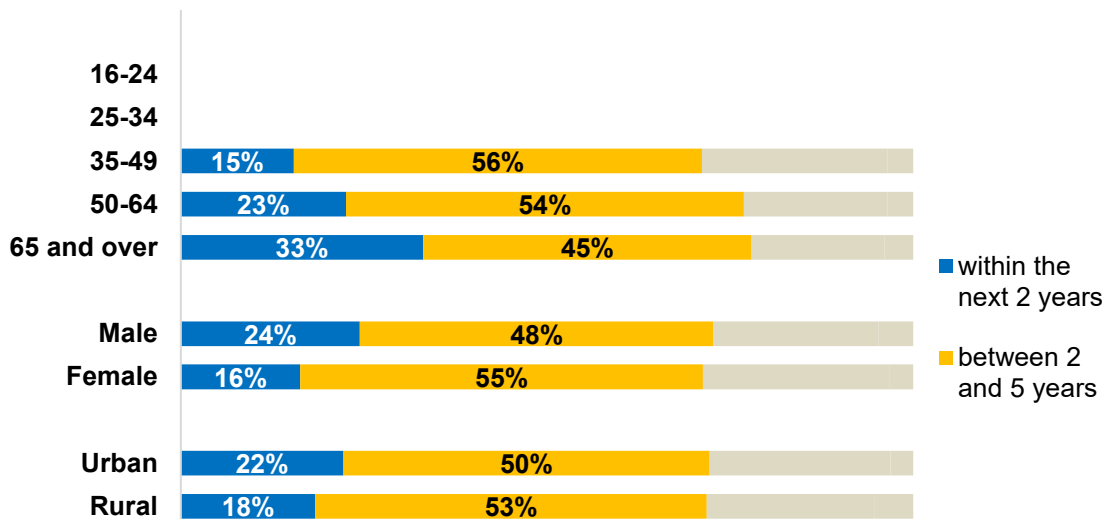
**Figure 5: When do you think you would be likely to purchase an electric vehicle? (all respondents)**



Base: 601

Over a fifth (21%) said they would be likely to purchase an electric vehicle 'within the next 2 years' while more than half (51%) said this would be 'between 2 and 5 years' time. Almost a quarter (24%) said it would be 'between 5 and 10 years' and some (4%) said it would be in 'over 10 years' time.

**Figure 6: When do you think you would be likely to purchase an electric vehicle?+ (by respondent group\*)**



\*due to small sample size, data for those aged 16-24 and 25-34 are not shown

+due to rounding, percentages may sum to more than 100

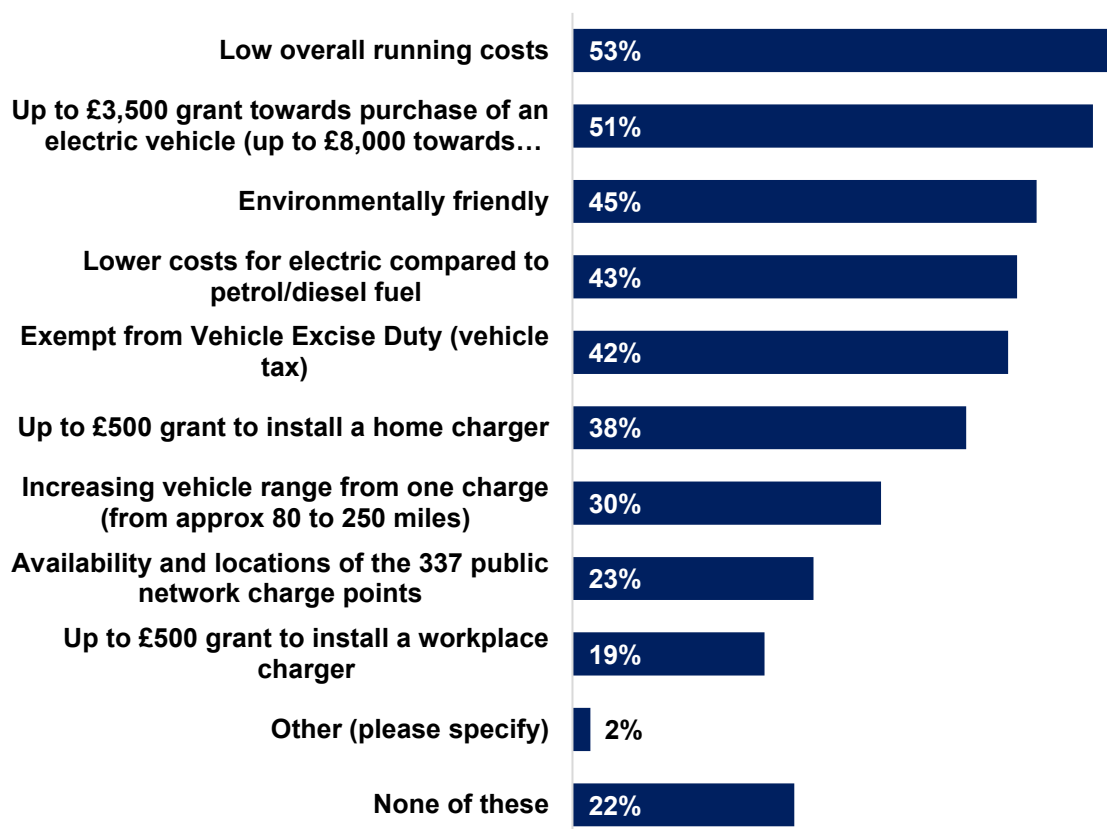
Looking at this data by respondent group (figure 6), a third (33%) of those aged 65 and over said they would likely purchase an electric vehicle 'within the next 2 years', almost a quarter (24%) of male respondents said the same, and over a fifth (22%) of respondents in urban areas said they would likely purchase an electric vehicle within the next 2 years.

## Part 2: Electric car purchase influencing factors and awareness of

Respondents were asked to indicate which factors would encourage them to purchase an electric vehicle and which factors would discourage them from doing so.

### 2.1 Which factors would encourage you to buy an electric vehicle?

Figure 7: Factors that would encourage you to purchase an electric vehicle\*



\*respondents could choose more than one answer

Base: 2,415

'Low overall running costs' (53%) was the most common factor that would encourage respondents to purchase an electric vehicle, followed by 'up to £3,500 grant towards purchase of an electric vehicle' (51%). 45% said that being 'environmentally friendly' would encourage them to purchase an electric vehicle, 43% said 'lower costs of electric compared to petrol/diesel fuel' and 42% said being 'exempt from vehicle excise duty' would encourage them to purchase an electric vehicle.

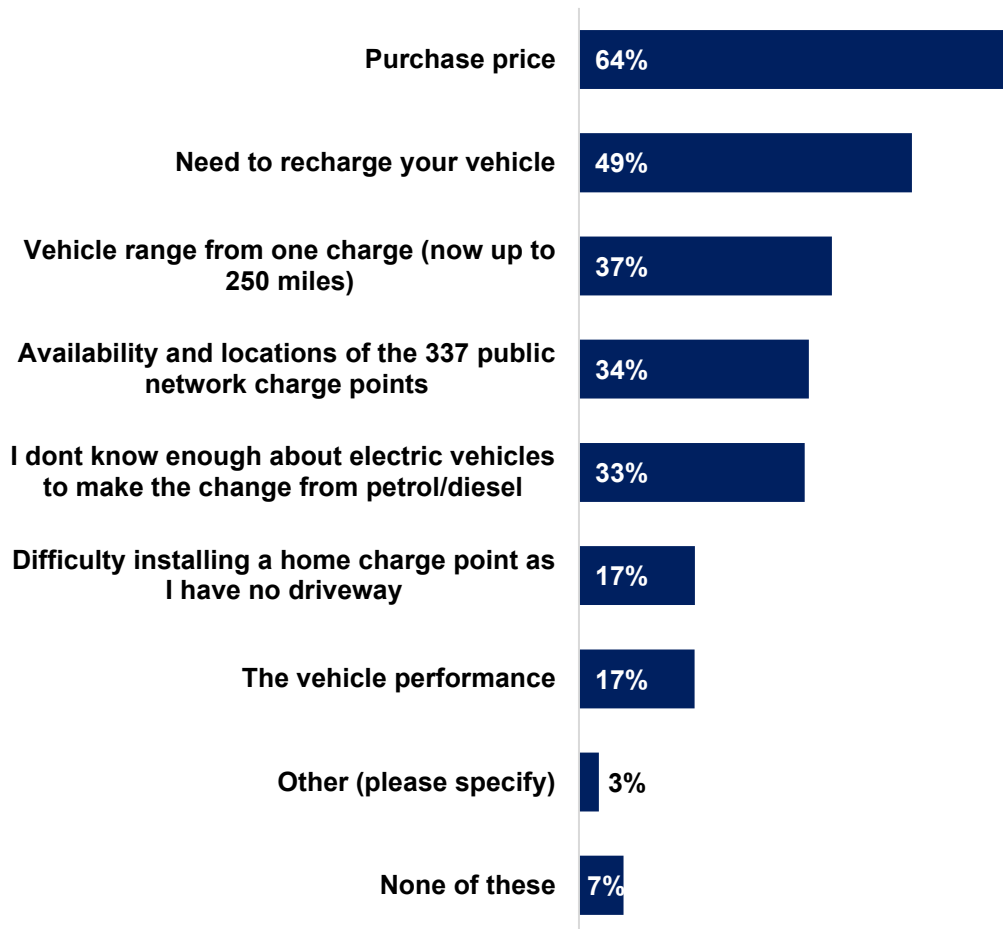
While not directly comparable, 'low running costs' was the most commonly given factor that influenced the purchase of electric cars in 2015/16.

Please see table 3.1 of the associated data tables <sup>1</sup>for responses by respondent group.

<sup>1</sup> [DfI E-cars research webpage \(opens in a new window\)](#)

## 2.2 Which factors would discourage you from buying an electric vehicle?

Figure 8: Factors that would discourage you from purchasing an electric vehicle\*



\*respondents could choose more than one answer

Base: 2,412

Just under two-thirds (64%) of respondents said that ‘purchase price’ would discourage them from purchasing an electric vehicle, while over half (49%) said the ‘need to recharge your vehicle’ would discourage them. 37% of respondents said ‘vehicle range from one charge’ would discourage them from purchasing an electric vehicle.

‘Difficulty installing a home charge point as I have no driveway’ (17%) and ‘vehicle performance’ (17%) were the least common factors that would discourage respondents from purchasing an electric vehicle.

Please see table 3.2 of the associated data tables <sup>2</sup>for responses by respondent group.

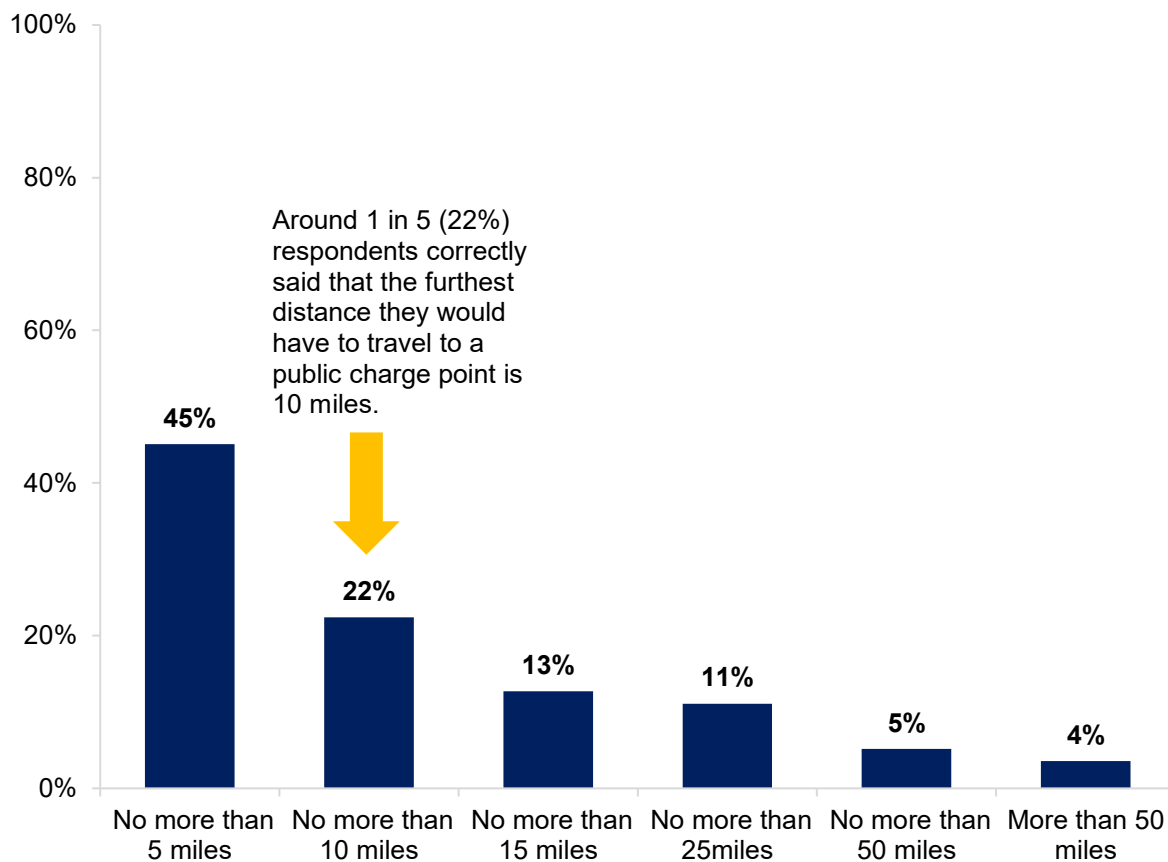
<sup>2</sup> [DfI E-cars research webpage \(opens in a new window\)](#)

### 2.3 What do you think is the furthest you would ever have to travel to reach one of the public charge points?

While most electric vehicle drivers charge their car at home, there is a network of 337 public charge points across Northern Ireland and these public charge points help extend a vehicle's range by providing the chance to charge it when driving long distances.

Respondents were asked what they thought is the furthest distance that they would have to travel to reach one of these public charge points. In Northern, Ireland, no one should have to travel further than 10 miles in order to reach a public charge point.

**Figure 9: What do you think is the furthest you would travel to reach one of the public charge points?**



Base: 2,213

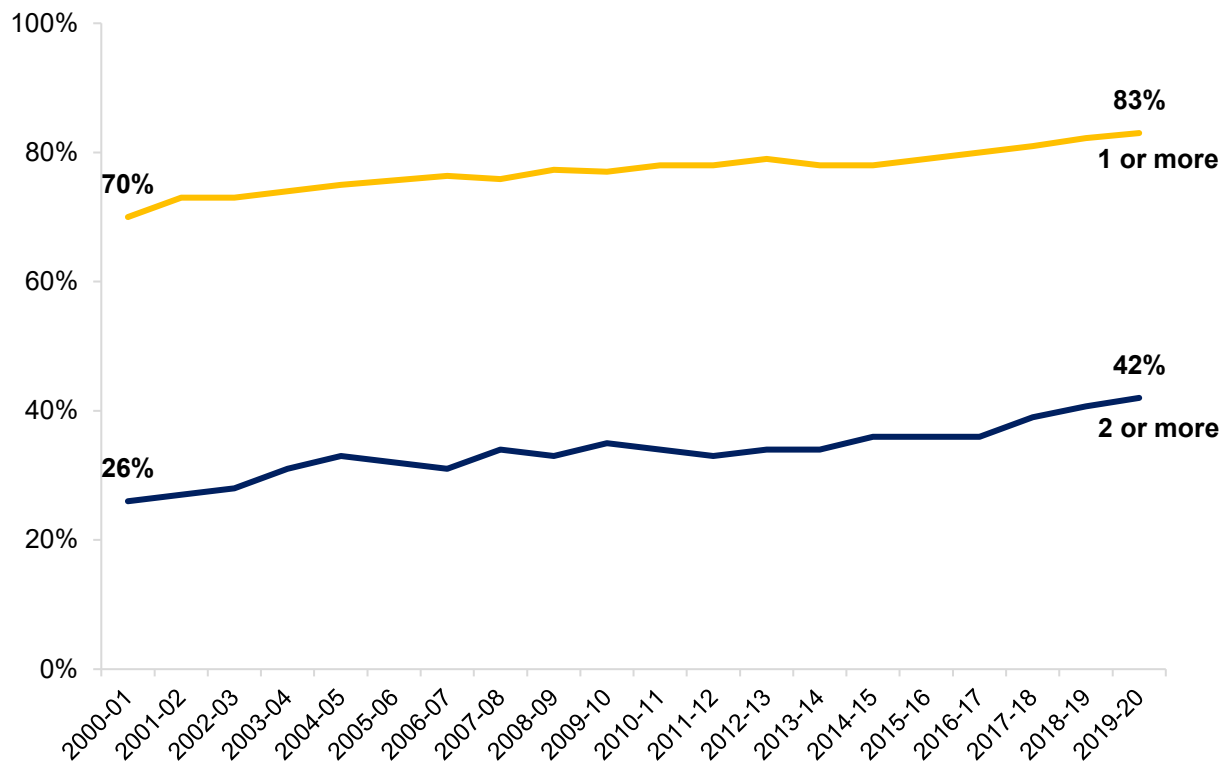
Almost half (45%) of respondents said they would have to travel 'no more than 5 miles' to the nearest one. Around a fifth (22%) of respondents correctly said 'no more than 10 miles', and 13% said they would have to travel 'no more than 15 miles' to reach the nearest public charge point.

4% of respondents thought they would have to travel 'more than 50 miles' to the nearest public charge point.

## Part 3: Trends in household car access from 2000/01 to 2019/20

### 3.1 Household access to one or more cars 2000/01 to 2019/20

Figure 10: Trends in Household Car Access 2000/01 to 2019/20



It is clear from the chart above that household access to at least 1 car has been steadily increasing since 2000/01 when seven in ten (70%) of households had access to at least 1 car. In 2019/20, this increased to 83% of households in NI. (Figure 10).

Households with access to 2 or more cars has increased from 26% in 2000/01 to over two-fifths (42%) in 2019/20 (Figure 10).

## **Appendix A: Technical Notes**

### **Data Collection**

The information presented in this publication derives from the Northern Ireland Continuous Household Survey (CHS), a Northern Ireland wide household survey administered by Central Survey Unit (CSU), Northern Ireland Statistics and Research Agency (NISRA).

It is based on a sample of the general population resident in private households and has been running since 1983. The survey is designed to provide a regular source of information on a wide range of social and economic issues relevant to Northern Ireland. The nature and aims of CHS are similar to those of the General Household Survey (GHS), which is carried out by the Office for National Statistics (ONS) in Great Britain. The Walking, Cycling and Public Transport in Northern Ireland questions which were commissioned by DfI are included in Appendix C of this report.

### **Data Quality**

Data were collected by CSU and various validation checks were carried out as part of the processing. CSU is the leading social survey research organisation in Northern Ireland and is one of the main business areas of NISRA, an Agency within the Department of Finance. CSU has a long track record and a wealth of experience in the design, management and analysis of behavioural and attitude surveys in the context of a wide range of social policy issues. CSU procedures are consistent with the Code of Practice for Statistics<sup>3</sup>.

The CHS sample was assessed and considered to be a representative sample of the Northern Ireland population at household level.

Whilst data quality is considered to be very good, note that all survey estimates are subject to a degree of error and this must be taken account of when considering results. This error will be reasonably small for the majority of Northern Ireland level results but care should be taken when looking at results based on smaller breakdowns.

### **Respondents**

The 2019/20 CHS was based on a random sample of 9,000 domestic addresses drawn from the Land and Property Services list of addresses and interviews were sought with all adults aged 16 and over in these households. The survey is split into two versions with each version is distributed to around 4500 addresses. This dataset contains the records for 2,962 adults aged 16 and over.

The number of respondents who answered each question, i.e. the base number, is stated in the commentary and/or the associated chart. The base number is the unweighted count.

Some questions were only asked if the respondent had answered 'yes' to a previous question. The base number may also vary between questions due to some respondents not answering certain questions.

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<sup>3</sup> [Code of Practice for Statistics](#)

## **Weighting**

Statistical tests have been carried out on these results and have determined that weighting is not required for this module.

## **Confidence Intervals**

No sample is likely to reflect precisely the characteristics of the population it is drawn from because of both sampling and non-sampling errors. An estimate of the amount of error due to the sampling process can be calculated. For a simple random sample design, in which every member of the sampled population has an equal and independent chance of inclusion in the sample, the sampling error of any percentage,  $p$ , can be calculated by the formula:

$$\text{s.e. } (p) = \sqrt{(p*(100 - p)/n)}$$

where  $n$  is the number of respondents on which the percentage is based. The sample for the Continuous Household Survey is drawn as a random sample, and thus this formula can be used to calculate the sampling error of any percentage estimate from the survey.

## **Multiple Response Questions**

Multiple response questions are those for which respondents can give more than one response if they wish. In such questions, when individual percentages are summed they may add to more than 100%.

## **Rounding Conventions**

Percentages have been rounded to whole numbers and as a consequence some percentages may not sum to 100. 0% may reflect rounding down of values under 0.5.

## **Significant Difference**

Any statements in this report regarding differences between groups such as males and females, different age groups, etc., are statistically significant at the 95% confidence level. This means that we can be 95% confident that the differences between groups are actual differences and have not just arisen by chance. Both the base numbers and the sizes of the percentages have an effect on statistical significance. Therefore on occasion, a difference between two groups may be statistically significant while the same difference in percentage points between two other groups may not be statistically significant. The reason for this is because the larger the base numbers or the closer the percentages are to 0 or 100, the smaller the standard errors. This leads to increased precision of the estimates which increases the likelihood that the difference between the proportions is actually significant and did not just arise by chance.



## **Respondent Groups**

The following respondent groups were considered:

### **Age group**

The age of the respondent is grouped into the following age bands; 16-24, 25-34, 35-49, 50-64, 65 and over.

### **Sex**

Sex of respondent is defined as whether the respondent is male or female.

### **Urban and rural areas**

Urban and rural areas have been classified using the statistical classification of settlements defined by the Inter-Departmental Urban-Rural Definition Group.

- Bands A to E are classified as Urban. This includes Belfast Metropolitan Urban Area (Band A), Derry Urban Area (Band B) and large, medium and small towns (Bands C-E) with populations greater than or equal to 5,000 people.
- Bands F to H are classified as rural. This includes intermediate settlements (Band F), villages (Band G) and small villages, hamlets and open countryside (Band H) with populations of less than 5,000 people and including open countryside.

### **Local Government District**

Local Government Districts include the 11 district council areas;

Antrim and Newtownabbey  
Armagh, Banbridge and Craigavon  
Belfast  
Causeway Coast and Glens  
Derry and Strabane  
Fermanagh and Omagh  
Lisburn and Castlereagh  
Mid and East Antrim  
Mid Ulster  
Newry, Mourne and Down  
North Down and Ards

## Appendix B: Confidence Intervals

A confidence interval represents the range of values in which the true population value is likely to lie. It is based on the sample estimate and the confidence level. As the percentages are calculated from a representative sample of the Northern Ireland population (aged 16 and over), a confidence interval can be calculated to estimate the level of uncertainty in the sample estimate.

95% confidence intervals were calculated for the headline figures. Table B1 summarizes the confidence intervals for likelihood to purchase an electric vehicle in Northern Ireland.

**Table B1: Confidence Intervals for Likelihood to Purchase an Electric Vehicle in Northern Ireland**

	<b>Estimate (%)</b>	<b>Sample (n)</b>	<b>95% Confidence Range +/-</b>	<b>Confidence Interval</b>
% who would 'definitely' or 'strongly consider' an electric vehicle as their next purchase	25	2,408	2	23-27%

- The 95% confidence interval for respondents who would 'definitely' or 'strongly consider' an electric vehicle as their next purchase at present is 25% +/- 2%. This means that there is a 95% probability that the proportion of the Northern Ireland adult population who would 'definitely' or 'strongly consider' an electric vehicle as their next purchase at present lies between 23% and 27%.

## **Appendix C: Attitudes to Electric Vehicles in Northern Ireland Questionnaire**

**[INTROeCAR]** There are now many models of cars and vans which are fully electric or a combination of electric and petrol/diesel known as hybrids. The following questions are about the likelihood of you purchasing either a fully electric or hybrid vehicle and your knowledge about electric vehicles and how they charge.

### **[ECAR1] SHOWCARD (ACCESS TO CAR OR VAN)**

Do you currently own or have access to a car or van?

INCLUDE ANY PROVIDED BY EMPLOYERS IF NORMALLY AVAILABLE FOR PRIVATE USE.

EXCLUDE ANY USED SOLELY FOR THE CARRIAGE OF GOODS.

1. Yes, own/have access to a car/van which I can drive
2. Yes, own/have access to more than one car/van which I can drive
3. No, I have a driving license but do not have access to car/van
4. No, I don't have a driving licence but I am currently learning to drive
5. No, I don't have a driving license ->[end of module]

**[ECAR2]** How likely are you to buy an electric vehicle as your next vehicle?

### ***RUNNING PROMPT***

1. My next purchase will definitely be an electric vehicle-> [ECAR3]
2. I would strongly consider an electric vehicle for my next purchase-> [ECAR3]
3. I would be unlikely to consider an electric vehicle for my next purchase-> [ECAR4]
4. I would not consider an electric vehicle for my next purchase-> [ECAR4]

**[ECAR3]** If so, when do you think you would be likely to purchase an electric vehicle?

### ***RUNNING PROMPT***

1. Within the next 2 years?
2. Between 2 and 5 years?
3. Between 5 and 10 years?
4. Over 10 years?

**[ECAR4] SHOWCARD XX**

Please indicate which of these options, if any, would encourage you to buy an electric vehicle **CODE ALL THAT APPLY**

1. Environmentally friendly
2. Up to £3,500 grant towards purchase of an electric vehicle (up to £8,000 towards purchase of an electric van)
3. Low overall running costs
4. Exempt from Vehicle Excise Duty (vehicle tax)
5. Availability and locations of the 337 public network charge points
6. Lower costs for electric compared to petrol/diesel fuel
7. Increasing vehicle range from one charge (from approx. 80 to 250 miles)
8. Up to £500 grant to install a home charger
9. Up to £500 grant to install a workplace charger
10. Other->**[ECAR4oth]**
11. None

**[ECAR4oth]** Please specify any other reasons

**[ECAR5] SHOWCARD XX**

Please indicate which of these options, if any, would discourage you from buying an electric vehicle? **CODE ALL THAT APPLY**

1. Need to recharge your vehicle
2. Vehicle range from one charge (now up to 250 miles)
3. Purchase price
4. The vehicle performance
5. Availability and locations of the 337 public network charge points
6. Difficulty installing a home charge point as I have no driveway
7. I don't know enough about electric vehicles to make the change from petrol/diesel
8. Other->**[ECAR5oth]**
9. None

**[ECAR5oth]** Please specify any other reasons

**[ECAR6]** In addition to the option of installing a home charge point when purchasing an electric vehicle, there are also 337 public charge points across Northern Ireland. From anywhere in NI, what do you think is the furthest you would ever have to travel to reach one of these public charge points?

1. No more than 5 miles
2. No more than 10 miles
3. No more than 15 miles
4. No more than 25miles
5. No more than 50 miles
6. More than 50 miles