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November 1, 2019

Public Utility Commission of Oregon
Filing Center
201 High Street SE, Suite 100
P.O. Box 1088
Salem, Oregon 97301

RE: UM ___ – Idaho Power Company's Application for Transportation Electrification Plan

Attention Filing Center:

Pursuant to OAR 860-087-0020, Idaho Power Company ("Idaho Power" or "Company") submits the enclosed Transportation Electrification Plan ("TE Plan") for acceptance by the Public Utility Commission of Oregon ("Commission"). Idaho Power's TE Plan contains the Company's long-term strategy to accelerate TE in its Oregon service area. Given the current state of the TE market in Idaho Power's Oregon service area, the Company's TE Plan is largely focused on improving the visibility and awareness of electric vehicles ("EV"). Through education and awareness, Idaho Power aims to accelerate TE by contributing to increased adoption of EVs, and access to electricity as a form of transportation fuel.

Idaho Power respectfully requests that the Commission issue an order finding that the Company's TE Plan meets the requirements of OAR 860-087-0020. The Company also requests that the Commission waive (per OAR 860-087-0001) OAR 860-087-0020(2)(d), which requires Idaho Power to present its TE Plan at a public meeting, if the Commission finds that presentation of the Company's modest TE Plan, reflecting the limited EV penetration in its Oregon service area, would not materially benefit the Commission.

It is respectfully requested that all formal data requests to the Company regarding this filing be addressed to the following:

By email (preferred): dockets@idahopower.com

By regular mail: Lisa Nordstrom
Lead Counsel
Idaho Power Company
1221 W. Idaho Street
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If you have any substantive questions about the plan, please contact Regulatory Analyst Nicole Blackwell at 208-388-5764 or nblackwell@idahopower.com.

Very truly yours,

Lisa D. Nordstrom

Lisa D. Nordstrom

LDN/kkt
Enclosure
cc: AR 609 Service List via email

Transportation Electrification Plan

November 1, 2019

Pursuant to OAR 860-087-0020, Idaho Power Company ("Idaho Power" or "Company") hereby respectfully requests the Public Utility Commission of Oregon ("Commission") accept the Company's Transportation Electrification Plan ("TE Plan"). Idaho Power's TE Plan contains the Company's long-term strategy to accelerate TE in its Oregon service area. The objective of the TE Plan is to integrate all of the Company's TE actions into one document. This includes analyzing Idaho Power's portfolio of near-term and long-term TE actions, including its approved TE program, future TE actions, and other TE-related activities.

PROCEDURAL BACKGROUND

As mandated by Senate Bill 1547 ("SB 1547"), the Commission has directed each Oregon electric utility to file applications for a long-term plan and programs to accelerate TE. The objectives outlined in Section 20 of SB 1547 are as follows:

A. TE is necessary to reduce petroleum use, achieve optimum levels of energy efficiency and carbon reduction, meet federal and state air quality standards, meet Oregon's greenhouse gas ("GHG") emissions reduction goals described in ORS 468A.205 and improve the public health and safety;

B. Widespread TE requires that electric companies increase access to the use of electricity as a transportation fuel;

C. Widespread TE requires that electric companies increase access to the use of electricity as a transportation fuel in low and moderate-income communities;

D. Widespread TE should stimulate innovation and competition, provide consumers with increased options in the use of charging equipment and in procuring services from suppliers of electricity, attract private capital investments and create high quality jobs in this state;

E. TE and the purchase and use of electric vehicles should assist in managing the electrical grid, integrating generation from renewable energy resources and improving electric system efficiency and operational flexibility, including the ability of an electric company to integrate variable generating resources;

F. Deploying TE and electric vehicles creates the opportunity for an electric company to propose, to the Commission, that a net benefit for the customers of the electric company is attainable; and

G. Charging electric vehicles in a manner that provides benefits to electrical grid management and affords fuel cost savings for vehicle drivers.

The Commission opened Docket No. AR 609 to establish a rulemaking regarding utilities' long-term TE Plans. In Order No. 19-134, the Commission adopted OAR 860-087-0020, which requires an electric company to file TE Plans, and identifies the required elements of an electric company's TE Plan. This document presents Idaho Power's first TE plan and addresses the Company's long-term approach to accelerating TE and meeting the objectives of the legislation. This report provides a review of Idaho Power's current TE program and projects, initiatives, and activities being performed by the Company and describes additional projects the Company plans to explore in the next several years. In compliance with Order No. 19-134, the Company will update its TE Plan every two years.

TE PLAN REQUIREMENTS (OAR 860-087-0020(3))

I. Current Conditions of the TE Market in the Company's Oregon Service Area (OAR 860-087-0030(3)(a))

TE[1] is essentially nonexistent in the region of eastern Oregon, and as such there is a general lack of awareness, interest, and acceptance of TE. For purposes of this report, Idaho Power will primarily focus on EVs and EV charging infrastructure in the context of TE.

As of June 2019, the Oregon Department of Environmental Quality ("DEQ") reported that 25 EVs, including 15 Battery Electric Vehicles ("BEV") and 10 Plug-in Hybrid Electric Vehicles ("PHEV"), were registered in Idaho Power's service area, up from 22 EVs as of December 2018.[2]

As of September 2019, Plugshare.com reported four locations to charge EVs in the Company's Oregon service area. Only one of these locations is an actual EV station designed for EV charging. The other locations, including a hotel, RV park, and state park, consist of electrical outlets that EV drivers can use to charge their vehicles.

As of October 2019, none of the auto dealerships located in the Company's Oregon service area carried new EVs. From time to time, they may acquire a used EV as a trade in, but EVs are not consistently available for customers to purchase. Boise, Idaho is the closest location to the Company's Oregon service area that would offer a variety of EVs, including BEVs.

In December 2018, Idaho Power conducted an EV-related survey among the Oregon members of its Empowered Community.[3] Among the responses, 45 percent of respondents said they were "not very familiar" or "not familiar at all" with EVs. Of the

[1] See ORS 757.357(1)(b), TE means: "(A) The use of electricity from external sources to provide power to all or part of a vehicle, (B) Programs related to developing the use of electricity for the purposes described in subparagraph (A) of this paragraph, and (C) Infrastructure investments related to developing the use of electricity for purposes described in subparagraph (A) of this paragraph."

[2] https://www.oregon.gov/deq/FilterDocs/CFP-electicvehicles.pdf

[3] The Empowered Community is an online survey group facilitated by Idaho Power, consisting of Idaho and Oregon customers in various rate classes.

respondents who said they were “somewhat familiar” or “very familiar” with EVs, 55 percent said they had never been in or seen an EV or were unsure if they had ever been in or seen an EV.

These findings on the current state of the market, as well as existing market barriers which will be discussed at length later, illustrate Idaho Power’s distinctly different position with respect to accelerating TE relative to other Oregon investor-owned utilities. The Company expects that the adoption of TE will take longer than that of urban areas.

A. Existing State Policies and Programs (OAR 860-087-0030(3)(a)(A))

The following table includes existing state policies and programs that support SB 1547’s objectives in accelerating TE, including reducing petroleum use, achieving optimum levels of carbon reduction, and meeting Oregon’s GHG emissions reduction goals, among others as described previously.

Oregon State Policies & Programs
SB 1044
SB 1547
Oregon Clean Fuels Program
Oregon Clean Vehicle Rebate Program
Oregon GHG Emission Targets
Volkswagen Environmental Mitigation Plan for the State of Oregon

1. SB 1044

In 2019, SB 1044 was passed by the Oregon Legislature in an effort to promote TE and zero-emission vehicle (“ZEV”) use. At a high level, SB 1044 enacted the following:

- The Oregon Department of Energy (“Oregon DOE”) is required to assess the market for ZEVs and biennially report to the governor and Legislative Assembly information related to ZEVs.

- Establishes requirements for purchases and leases of ZEVs for state fleet purchases or leases.

- Authorizes public utilities to submit public benefit proposals to recover the costs of installing EV charging stations through customer rates. The costs are not to exceed more than $500,000 per year.

- Authorizes school districts to use public purpose charge funds for school district fleet audits, for purchase or lease of ZEVs, and for purchase or installation of EV charging stations.

Idaho Power is supportive of the Legislature’s desire to promote TE and ZEVs. The Company recognizes that SB 1044 provides an avenue specific to public utilities to help accomplish these goals by authorizing potential rate recovery

for EV charging infrastructure. However, given the current state of the EV market in Idaho Power's Oregon service area, its number of Oregon customers, and the income characteristics of those customers, as discussed in Section C(4), Idaho Power is unlikely to make a substantial investment in EV charging infrastructure in the near-term, but will continue to monitor for future opportunities.

2. SB 1547

In 2016, SB 1547 was passed by the Oregon Legislature in an effort to promote clean energy. The cornerstones of SB 1547 include eliminating coal from electricity supply, amending Renewable Portfolio Standards, establishing TE programs, and establishing community solar programs. As it pertains to this docket, SB 1547 requires electric utilities to file applications with the Commission for programs to accelerate TE.

In December 2016, Idaho Power filed an application with the Commission for an EV Awareness and Education Program ("TE Program"), which will be discussed in Section II. The Commission issued Order No. 17-286 in July 2017, approving Idaho Power's TE Program beginning in 2018. The Company filed a report with the Commission concurrent with this TE Plan in Docket No. UM 1815, which evaluates the first-year results of Idaho Power's TE Program.

3. Oregon Clean Fuels Program

In 2009, House Bill 2186 required the DEQ to adopt rules to reduce the average carbon intensity of transportation fuels used in the state by 10 percent over a 10-year period, known as the Oregon Clean Fuels Program ("CFP").

In July 2017, the Commission issued Order No. 17-250, in which it determined that electric utility participation in the CFP as clean fuel credit generators is in the public interest. Portland General Electric and PacifiCorp were ordered to register as clean fuel credit generators with the DEQ. In Order No. 18-376, the Commission adopted Staff's Report dated October 1, 2018, in which Commission Staff determined that Idaho Power does not have sufficient EVs in its Oregon service area to warrant the expense of administering a program using CFP revenues.[4]

4. Oregon Clean Vehicle Rebate Program

The Oregon Clean Vehicle Rebate Program is a DEQ program that offers rebates to Oregon residents for the purchase or lease of EVs. The DEQ designed the program to reduce vehicle emissions by encouraging more Oregonians to purchase or lease EVs rather than gas vehicles. The program contains two rebate options:

[4] *In the Matter of Public Utility Commission of Oregon, Revised Principals and Process for Utility Use of Revenue from Clean Fuels Program*. Order No. 18-376, Appendix A, page 11 (October 11, 2018).

Standard Rebate – for the purchase or lease of a **new** PHEV or a **new** BEV.

- $2,500 towards the purchase or lease of a new PHEV or BEV with a battery capacity of 10 kilowatts or more
- $1,500 towards the purchase or lease of a new PHEV or BEV with a battery capacity of less than 10 kilowatts
- $750 towards the purchase or lease of a zero-emission electric motorcycle

Charge Ahead Rebate – for the purchase or lease of a **new** or **used** BEV or PHEV in some instances. To qualify for the Charge Ahead Rebate, the purchaser or lessee must be from a low- or moderate-income household.

- $2,500 towards the purchase or lease of a new or used BEV. PHEVs purchased on or after September 29, 2019, are also eligible for the Charge Ahead Rebate.

The DEQ receives $12 million annually for the program through funding generated by car dealership taxes. The program ends on January 2, 2024. As of September 2019, the DEQ had issued $6.6 million in rebates. Idaho Power provides information regarding the Oregon Clean Vehicle Rebate Program, as well as available federal tax incentives, on the Company's EV website: idahopower.com/ev. As noted previously, none of the dealerships in Idaho Power's Oregon service area carry new EVs.

5. GHG Emission Targets

Oregon GHG Emission Targets are found in ORS 468A.205 and are implemented through OAR 860-085-0050. Pursuant to OAR 860-085-0050, Idaho Power is required to submit a report biennially that estimates the rate impact for reaching a goal of GHG emissions in 2020 which are 10 percent less than 1990 levels and 15 percent less than 2005 levels.

As reported in the Company's 2018 Oregon Greenhouse Gas Emissions report in Docket No. RE 92, Idaho Power's Oregon jurisdictional estimated carbon emissions for the year 2020 are expected to be 164,384 tons. This amount of carbon emissions is below the targets of 10 percent below 1990 levels (314,597 tons) and 15 percent below 2005 levels (342,878 tons). Consequently, the Company estimates no incremental rate impact associated with reducing carbon emissions.

6. Volkswagen Environmental Mitigation Plan for the State of Oregon

In 2016, the Environmental Protection Agency filed a complaint alleging that Volkswagen violated the Clean Air Act by the sale of approximately 590,000 model years 2009 – 2016 diesel motor vehicles equipped with "defeat devices" that use computer software to cheat on federal emissions tests.[5]

[5] https://www.epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement#mitigation

Per the settlement of that case, Volkswagen is required to provide more than $2.9 billion to an Environmental Mitigation Fund to mitigate previous and current excess emissions of nitrogen oxides by those noncompliant vehicles. The initial allocation to the state of Oregon is approximately $72.9 million to be spent over 10 years on a list of eligible mitigation actions.[6]

In June 2018, the DEQ released a proposal for using the Oregon share of Volkswagen Environmental Mitigation Funds for light-duty EV charging infrastructure and requested public comment.[7] In July 2018, Idaho Power provided comments and expressed its support of DEQ's proposal to invest up to 15 percent of the funds in charging infrastructure across Oregon. Idaho Power emphasized the importance of connecting the eastern and western parts of the state and rural areas to allow long-range EV travel across Oregon and to the intermountain west.

B. Market Barriers (OAR 860-087-0030(3)(a)(B))

Common barriers to EV adoption include driving range, price, access to public charging, and availability. These barriers exist for Idaho Power's Oregon customers, but are exacerbated by the characteristics of the Company's service area.

Idaho Power's Oregon service area spans some of the most remote landscape across eastern Oregon. The service area encompasses 4,744 square miles and is largely comprised of rural communities. The largest town in Idaho Power's Oregon service area is Ontario, which has a population of roughly 11,000. The next largest towns are Nyssa, with a population of approximately 3,000, and Vale with a population of approximately 2,000. The majority of the remaining towns in Idaho Power's Oregon service area have populations of less than 300. As of year-end 2018, Idaho Power's Oregon service area consisted of 19,173 total customers, 13,510 of which are residential customers.

1. Market Barrier: Driving Range

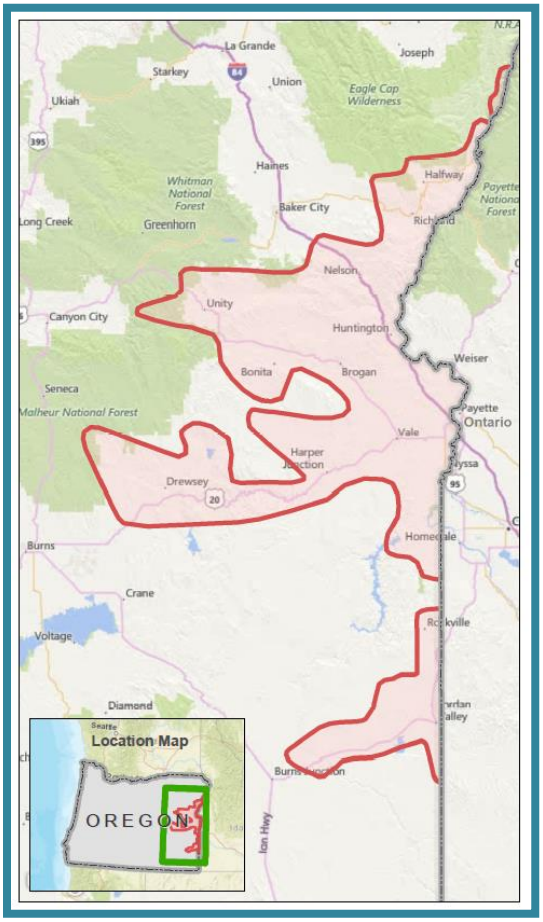
Idaho Power's Oregon service area is located in a remote portion of eastern Oregon. The distance between Ontario and Nyssa, the two largest towns in the Company's Oregon service area, is 13 miles. The closest metropolitan statistical area is Boise, Idaho,[8] which is 56 miles east of Ontario, Oregon. The

[6] https://www.oregon.gov/deq/FilterDocs/VWmitigplan.pdf

[7] https://www.oregon.gov/deq/FilterDocs/vw15VWStrawProp.pdf

[8] "September 2018 Office of Management and Budget Bulletin No. 18-04." U.S. Census Bureau. https://www.whitehouse.gov/wp-content/uploads/2018/09/Bulletin-18-04.pdf.

closest metropolitan statistical area within Oregon is Bend,[9] which is 260 miles west of Ontario. Below is a map of Idaho Power's service area in Oregon:



The rural nature of Idaho Power's Oregon service area presents a challenge to the range capabilities of mid-level EVs. In order to travel outside the rural area, or even between many of the towns within this area, customers would likely need a newer model EV with longer range capabilities, which comes at a higher cost, or access to public charging, which is limited.

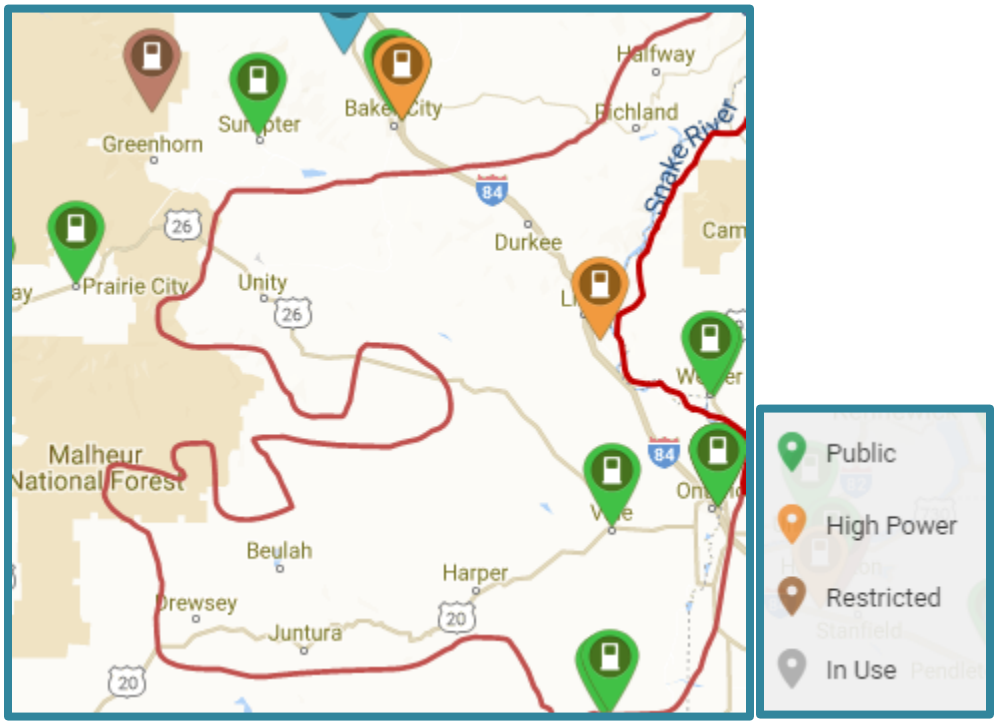
Idaho Power is encouraged by the improvements in battery technology and driving range in newer model EVs. The Company believes continued improvement in this area will ease this market barrier for its Oregon customers so long as it is not cost prohibitive, another market barrier that will be discussed later.

2. Market Barrier: Public Charging

Public charging station availability is limited within Idaho Power's Oregon service area. As mentioned previously, as of September 2019, Plugshare.com, a website that allows users to find and review charging stations, reported four

[9] "September 2018 Office of Management and Budget Bulletin No. 18-04." U.S. Census Bureau. https://www.whitehouse.gov/wp-content/uploads/2018/09/Bulletin-18-04.pdf.

locations to charge EVs in the Company's Oregon service area. Of these four locations, the Electrify America DC Fast Charging site located in Huntington, Oregon, is the only EV station designed for EV charging. The other locations, including a hotel, RV park, and state park, consist of electrical outlets that EV drivers can use. Below is a map of charging station availability in Idaho Power's Oregon service area, provided by PlugShare.com:



3. Market Barrier: Availability

As mentioned previously, as of June 2019, 25 EVs were registered in Idaho Power's Oregon service area. A contributing factor to the absence of EV's in eastern Oregon is the lack of availability. In October 2019, Idaho Power contacted the car dealerships located within its Oregon service area to determine the availability of EVs. None of the dealerships carry new EVs, however, from time to time, they may acquire a used EV as a trade in. Boise, Idaho is the closest location to the Company's Oregon service area that offers a variety of EVs, including BEVs. Boise is 56 miles from Ontario.

4. Market Barrier: Price

Although the range and cost of EVs are improving as technology advances, the price of EVs remains a barrier to adoption. This barrier is amplified when considering the income levels of Idaho Power's Oregon customers. According

to the United States Census Bureau,[10] the median household income for Ontario, Oregon is $31,182, compared to $54,547 for Boise, Idaho and $61,532 for Portland, Oregon. Furthermore, in a report released in January 2018, the Oregon Department of Human Services[11] identified Malheur County, the county in which the majority of the Company's Oregon customers reside, as a "high poverty hotspot,"[12] or a geographic concentration of poor residents. The report states that Malheur County has three high poverty locations: Ontario, Nyssa, and Vale, the three largest towns in Idaho Power's Oregon service area. The report states that 91 percent of Malheur County's poor and 90 percent of the county's Supplemental Nutrition Assistance Program clients live in these three towns.

In evaluating its TE Plan, Idaho Power was mindful of these characteristics, particularly the financial impact that programs and infrastructure investments can have on its 19,173 Oregon customers.

Due to Oregon customers' limited exposure to TE, limited accessibility to EVs and EV charging infrastructure, income levels, and the remote location of the Oregon service area, the Company expects that the adoption of TE will take longer than that of urban areas.

Idaho Power's long-term strategy to addressing the identified barriers primarily involves increasing EV awareness and education. The Company will continue to do so through its TE Program, in addition to other projects and initiatives as described later in this plan. Idaho Power believes a long-term strategy focused on awareness and education is the best way to tackle market barriers to EV adoption.

C. Availability and Usage Patterns of Charging Stations (OAR 860-087-0030(3)(a)(C))

As noted previously, there are four locations to charge EVs in the Company's Oregon service area. Because these are not Company-owned charging stations, Idaho Power cannot report on the usage patterns of these charging stations. Plugshare.com does report the number of voluntary customer "check-ins" at these locations. Since August

[10] Data derived from U.S. Census Bureau American Fact Finder. Median Household Income in the past 12 months (in 2017 inflation-adjusted dollars). 2013-2017 American Community Survey 5-year estimates. Dataset ID: S1901. Analysis derived data for Ontario, and separate analyses derived the same data for the cities of Boise and Portland for comparison purposes.

[11] "High Poverty Hotspots – Malheur County" *Oregon.gov.* Oregon Department of Human Services Office of Forecasting, Research, & Analysis.

[12] Hotspot: The U.S. Census Bureau's definition of a poverty area is a tract with a poverty rate of 20 percent or more. The Oregon Department of Human Services defines a high poverty hotspot as a census tract or contiguous group of tracts with poverty rates of 20 percent or more for two consecutive measurements. Poverty rates were measured in the Census Bureau's 2011-2015 and 2010-2014 American Community Surveys.

17, 2014, there have been 43 customer check-ins at these charging locations, 25 of which occurred in 2019.

To date, Idaho Power has not invested in EV charging infrastructure in its Oregon service area due to the limited number of EVs registered in the area and the potential financial impact on its Oregon customers. However, the Company is currently exploring partnering with a customer to install a public Level 2 fast charger. Idaho Power will determine the possibility of gaining access to the charging data in order to report on usage patterns in future TE Plan updates.

D. Current and Forecast Number of EVs in the Company's Service Area (OAR 860-087-0030(3)(a)(D))

As of June 2019, there were 25 EVs registered in Idaho Power's Oregon service area, up from 22 EVs as of December 2018, a 13.64 percent increase.[13] Due to the current market conditions and the significant barriers to adoption, including dealerships citing no plans to carry EVs in the near future, the Company expects that growth will remain stable for the foreseeable future, maintaining the currently low level of EV penetration. Based on a stable growth rate, Idaho Power forecasts that 37 EVs will be registered in its Oregon service area by December 2020 and approximately 130 EVs by December 2025.

E. Other TE Infrastructure, if Applicable (OAR 860-087-0030(3)(a)(E))

Not applicable.

F. Charging and Vehicle Technology Updates (OAR 860-087-0030(3)(a)(F))

Many facts of EV technology are evolving rapidly, including battery characteristics and driving range, model availability, and charging capabilities; even the types of electric transportation are expanding quickly.

EV battery technology has advanced over the past few years, with current, average priced models enabling a car to travel over 100 miles. According to the U.S. Department of Energy ("U.S. DOE"), the median range of 2018 model year All-Electric Vehicles "(AEV") is 125 miles, up from 73 miles for 2011 model year AEVs.[14]

The market for EV battery advancement is forecasted to continue growing as manufacturers look to develop faster-charging batteries that also enable more miles per charge. The International Energy Agency ("IEA") notes that development in battery characteristics is well underway, including chemistry, energy density and size. According to IEA, it is expected that by 2025 batteries will increasingly use cathode

[13] https://www.oregon.gov/deq/FilterDocs/CFP-electicvehicles.pdf

[14] https://www.energy.gov/eere/vehicles/articles/fotw-1064-january-14-2019-median-all-electric-vehicle-range-grew-73-miles

chemistries that are less dependent on cobalt, leading to increased energy density and decreased cost.[15]

In addition to improvements in battery technology, the variety of EV models available has expanded significantly in recent years. The U.S. DOE reports that the number of AEV models increased from three to 14 between 2011 and 2018. Including AEVs, there were 56 models of electric-drive vehicles in varying size classes available in model year 2018.

Idaho Power is particularly optimistic about the introduction of electric trucks in the future because trucks are very common in Idaho Power's service area, as will be discussed later. Currently there are many types of electric trucks under development with a few models expected to enter the market within the next two years. According to Forbes,[16] the following electric trucks are in development:

Expected Electric Truck Models Coming to Market

Model	*Expected* Model Year	Range (miles)	Price ($)	Towing Capacity (lbs.)
Rivian R1T	2020	400	$69,000	11,000
Bollinger B2	2021-2022	200	$60,000*	7,500
Tesla Pickup	2019-2020	400-500	$49,000	300,000
Ford F-150**	2021	NA	NA	NA

*According to caranddriver.com/bollinger/b2
**Both PHEV and AEV models

Outside of the vehicle itself, charging stations are a vital enabler of the growth in the market for EVs. There is a vast amount of activity happening in the charging world, including efforts to build charging networks across the United States, developments in faster, high-powered chargers, and mergers that could lead to greater access to charging equipment. As noted previously, for violations of the Clean Air Act, Volkswagen will invest $2 billion in ZEV infrastructure access over the next 10 years through Electrify America.

Due to the increasing interest in EVs for heavy-duty applications, including buses, trucks, heavy trucks, shipping, and aviation, advancements are being made in charging technology. According to IEA, standards have been developed for high-power chargers up to 600 kilowatts and there is a growing interest in mega-chargers that can charge at one megawatt or more.

Increasing focus on sustainability and clean energy in the corporate world is also likely to have a positive influence on the evolution of TE. One such example is the January

[15] IEA (2019), "Global EV Outlook 2019", IEA, Paris, www.iea.org/publications/reports/globalevoutlook2019/

[16] Ready or Not, Here Come Electric Pickup Trucks. July 2, 2019. https://www.forbes.com/sites/jimgorzelany/2019/07/02/ready-or-not-here-come-electric-pickup-trucks/#778875fe7280

2019 acquisition of Greenlots by Shell New Energies,[17] the renewable energy investment arm of Royal Dutch Shell, and the likely impact it will have on charging availability. Greenlots is a start-up with a wide reach in the EV charging infrastructure area. It operates a network of public charging stations and an EV charging management platform, and also installs charging stations for automotive brands and utility companies. According to Forbes, the acquisition is part of Shell's diversification into new energy markets, and a hedge on its stake in traditional gasoline stations as more drivers turn towards EVs.[18] Among other things, this acquisition positions Shell gas stations to become EV charging hubs as customers switch away from gasoline-powered cars.

Although it will take time for these new, advanced technologies to make their way into the eastern Oregon market, Idaho Power is encouraged by the technological progress and the potential to address market barriers for the Company's Oregon customers in the future.

G. Distribution System Impacts and Opportunities for Efficient Grid Management (OAR 860-087-0030(3)(a)(G))

Not applicable. Given the current state of TE in the Company's Oregon service area, the Company believes its current TE Plan, TE Program, and TE-related activities are not likely to have distribution system impacts or create material opportunities for grid management for the foreseeable future. Idaho Power will be attentive to this component in future years, as the TE market in its service area expands.

II. The Company's TE Program and Future TE Concepts and Actions in its Oregon Service Area (OAR 860-087-0030(3)(b))

Idaho Power's long-term strategy to accelerating TE in its Oregon service area is primarily focused on education, as this is a logical first step in accelerating TE, and EV adoption. Because the path to EV adoption is expected to take several years, the Company believes that education and awareness are the most efficient and effective channels to concentrate its efforts. In support of this long-term TE initiative, the Company launched its EV Awareness and Education Program in 2018. Idaho Power has also developed several TE concepts that it plans to investigate in future years as TE becomes more prevalent within its Oregon service area.

A. Idaho Power's Existing TE Actions

For several years Idaho Power has been preparing for accelerated consumer adoption of EVs and how the Company could best help customers understand the technology. To get familiar with the emerging technology, Idaho Power has added several

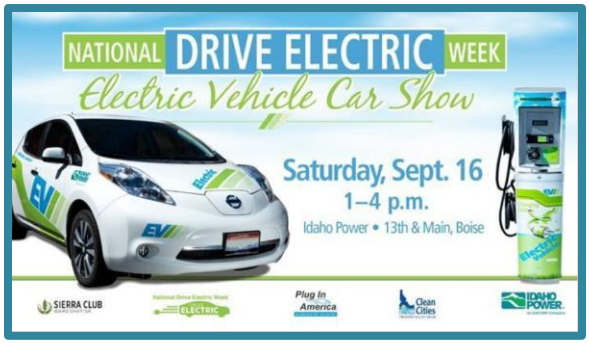
[17] https://greenlots.com/greenlots-announces-acquisition-by-shell-one-of-the-worlds-leading-energy-providers/

[18] https://www.forbes.com/sites/lianeyvkoff/2019/01/31/with-shells-acquisition-of-greenlots-big-oil-extends-its-reach-into-ev-infrastructure/#5ffc47f26372

passenger EVs to its fleet over the last few years, as well as hybrid-electric bucket trucks, electric utility vehicles, and battery-assisted trucks. Below are pictures of some of Idaho Power's all-electric fleet vehicles:

The Company also installed several charging stations of varying makes and models at its regional offices to allow for charging of fleet vehicles, as well as employee workplace charging. The Company's workplace installations provide valuable hands-on experience with multiple types of EV charging equipment. In addition to the regional office charging stations, the Company has installed a charging station showcase at its headquarters in Boise, Idaho to allow residents and businesses to learn about charging technology and available options. The showcase currently includes five types of EV charging stations.

Idaho Power has been a sponsor of National Drive Electric Week for many years and has hosted the regional event at its Boise, Idaho headquarters in the past. National Drive Electric Week is a nationwide celebration in which EV owners showcase their cars and the many benefits EVs have to offer. The event provides the public an opportunity to view EVs in person and talk with drivers and industry experts. With the support of local EV owners and dealers, Boise's National Drive Electric Week 2019 event included five informational booths, 43 EVs, and two vendors of one-wheel electric scooters and e-bikes.



Idaho Power currently has a Workplace Charging Incentive Program in which eligible business customers in the Company's Oregon and Idaho service areas may apply for funding to install Electric Vehicle Supply Equipment ("EVSE") for electric passenger vehicles, forklifts, or other TE technologies. The incentives are funded by Idaho Power shareholders.

1. EVSE Incentive Program for Passenger Vehicles

Idaho Power launched its EVSE Incentive Program for Passenger Vehicles in recognition that the second most useful location for EV charging is at work (after charging at home). Charging at work or in public places can help EV drivers nearly double their all-electric daily commuting range.[19] It also provides a charging location for employees and customers who may not have access to home charging.

The program allows business customers to apply for incentives to offset the costs of installing charging stations for their employees, fleet vehicles, or customers. Eligible business customers may apply to Idaho Power to fund 50 percent of project costs up to $7,500 per site for Level 1 and 2 charging. Funding is limited to $15,000 per customer. Below is a picture of Idaho Power Chief Executive Officer ("CEO") Darrel Anderson presenting an Idaho Power Workplace Charging Incentive check to Dennis Johnson, President and CEO of United Heritage Insurance.

2. EVSE Incentive Program for Forklifts

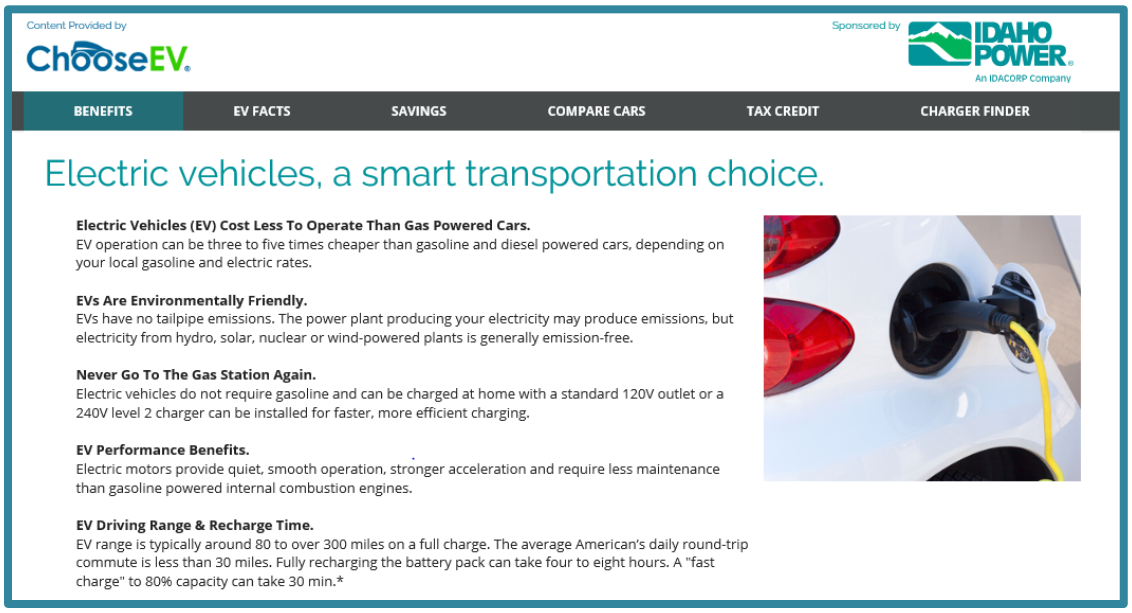
Idaho Power currently has a Workplace Charging Incentive Program specific to electric forklift charging. To help offset the costs of charging equipment for electric forklifts, eligible business customers in the Company's Oregon or Idaho service area may apply to Idaho Power to fund 50 percent of project costs up to $7,500 per customer.

[19] "Workplace Charging Challenge: Join the Challenge." *Energy.gov.* U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy.

3. EVSE Incentive Program for Other TE Technologies

Idaho Power also offers Workplace Charging Incentives for other types of TE technologies, including DC fast charging and EVSE for buses, refrigerated trucking, sanitation trucks, and airport supply equipment. Incentive amounts depend on total project costs, type of project, location, energy use and profile, and promotional opportunity. Incentives are capped at $20,000 per customer.

Idaho Power has also positioned itself to be a reference for customers interested in EVs and EV charging equipment. The Company has a website[20] specifically dedicated to EVs, including information on the technology, benefits, fuel economy, charging, and incentives available to customers.



The Company also has an email address, ev@idahopower.com, providing customers a reference point to ask questions and/or request additional marketing information on EVs.

B. Idaho Power's TE Program

The Company's TE Program is intended to generate EV interest and awareness in order to address the barriers surrounding customer perception of driving range, cost, and vehicle capabilities. Additionally, increased customer interest as a result of awareness and understanding is intended to improve consumer demand in the service area, which in turn would provide greater motivation for local dealers to offer EV options. The Company's TE Program is intended to address market barriers by building a solid foundation of understanding and awareness upon which future efforts may be built. A description of the Company's TE Program is presented below.

[20] https://www.idahopower.com/ev

1. Idaho Power's EV Awareness & Education Program

Idaho Power's strategy to increase awareness is to provide EV education and create more visibility of EVs for its Oregon customers. Specifically, Idaho Power wants customers to be aware of the advancing technology and the increased range capabilities of EVs. The Company also wants to inform customers of the federal and state incentives available for EV purchases, which may help align the cost of an EV with traditional gasoline engine vehicles. Lastly, Idaho Power wants to help customers understand the cost savings of fueling and maintaining an EV versus a traditional gasoline engine vehicle. At this time, Idaho Power believes that through education, it can best help lower the barriers to EV adoption.

Raising awareness of EVs and providing EV education will be achieved through a multi-faceted approach, including increasing the visibility of EVs in the Company's Oregon service area, providing resources to customers interested in learning more about EVs, and providing EV training to trade allies.

a. Increasing the Visibility of EVs

Idaho Power aims to increase the visibility of EVs in the Company's Oregon service area by showcasing its electric fleet vehicles in at least two events per year. In 2018 and 2019, Idaho Power hosted an EV informational booth and showcased its all-electric Chevy Bolt at the Malheur County Fair. The Malheur County Fair is the biggest event in Idaho Power's Oregon service area with an estimated attendance of 23,000 over five days. Attendees had access to a Company EV and information on the benefits of EVs and available incentives. The Company also hosted EV displays at Ontario Alive After Five and the Treasure Valley Community College Block Party. More information on the events held in 2018, as well as other accomplishments is provided in the Company's 2018 TE Program Evaluation Report, filed concurrently with the TE Plan.

b. EV Materials & Resources

The TE Program also consists of providing EV materials and resources to customers interested in learning more about the costs and benefits of EVs. Resources available to interested customers include the Company's EV webpage, EV marketing materials, and access to an EV subject matter expert at ev@idahopower.com. Idaho Power's EV website provides information on EV benefits, charging options and charging station locations, EV models, available incentives, a savings calculator, and workplace charging. Examples of Idaho Power's existing EV marketing materials is provided in Attachment 1.

c. EV Training

Another component of the TE Program includes providing training and education to trade allies. Idaho Power holds at least one training annually to trade ally groups with a role in EV adoption. In 2018, the Company sponsored a training for first responders and firefighters that covered identification of EVs, safety features, identifying the high voltage system, and accident response.

Idaho Power's TE program and TE-related activities have provided the Company with valuable information and takeaways. The Company intends to incorporate these learnings into future TE efforts to improve customer offerings and experience. Primary project learnings include:

- Partnerships are key to advancing EVs. The Treasure Valley Clean Cities Coalition ("TVCCC"), based in Boise, Idaho, serves the greater Treasure Valley region, which includes Idaho Power's Oregon service area. TVCCC provided EVs for the Company's 2018 EV training event. Idaho Power plans to continue leveraging this relationship, as well as others.

- There is currently a lack of access to training for trade allies in the Company's Oregon service area. Participants in Idaho Power's EV training event welcomed and appreciated the opportunity. The Company recognizes this need and will continue to explore meaningful training opportunities.

- Although the Company is a trusted energy advisor to its customers, third-party training events provide an additional valuable perspective appreciated by participants. In Idaho Power's experience, having a professional involved (emergency responder, electrician, manufacturer, etc.) helps break down barriers held by participants by dispelling myths about EVs.

- In its Idaho service area, Idaho Power partnered with environmental groups, cities, and universities to promote EVs and TE. These groups do not typically operate, or in many cases even exist, in rural eastern Oregon. Idaho Power intends to leverage relationships in its Idaho service area to gauge organizations' interest in expanding their reach into the greater Treasure Valley area.

C. Idaho Power's Future TE Concepts

Looking ahead, Idaho Power intends to explore the following TE concepts for potential implementation in future years.

1. Residential Charging Station Incentive

According to the U.S. DOE more than 80 percent of EV charging is done at home. Idaho Power will explore supporting customers who purchase EVs by

helping them defray the costs of home charging equipment, which is where they are likely to do most of their charging.

The average cost for a Level 1 residential home charging station is $500-$700, not including the cost of installation.[21] By offering an incentive, Idaho Power hopes to provide motivation for installation and use of chargers at the home of customers, as well as increase the use of electricity as a transportation fuel. Alternative fuels provide lower GHG emissions and cost less than traditional fuels. As part of a residential charging station incentive program, Idaho Power would also provide information related to the Company's Green Power Program and Time of Day Pricing ("TOD Pricing").

Idaho Power's Green Power Program is a voluntary program for customers who wish to match some or all of their electricity use with renewable energy. This can be a great option for customers who want to ensure that they are fueling their EV with clean energy. The Company's TOD Pricing provides customers an opportunity to potentially lower their EV fueling costs, by charging during off-peak hours.

2. Rest Area Electrification

In the long-term, widespread EV adoption in the Company's Oregon service area may be hindered by a lack of available public charging. As such, Idaho Power plans to research expanding public charging infrastructure. The Company is particularly interested in owning and maintaining charging infrastructure for highway rest areas. Because Idaho Power's customers are located in such a remote area, highway travel is the primary means of travel from one location to another. The Company understands that making highway travel more accessible for EVs will play a key role in expanding EV adoption in its rural service area.

3. Truck Stop Electrification

Similar to rest area electrification, the Company is interested in pursuing truck stop electrification. Truck stop electrification provides truck drivers with necessary services, such as heating, air conditioning, or appliances, without requiring drivers to idle their engine. There are several truck stops located within Idaho Power's Oregon service area as Interstate 84 runs directly through it.

[21] Buying Your First Home EV Charger. April 23, 2019. https://www.plugincars.com/quick-guide-buying-your-first-home-ev-charger-126875.html

4. Charging Station to Support TE Program Events

> Idaho Power is also exploring funding a Level 2 Charging Station in Ontario, Oregon in support of its TE Program events for 2020. Events are typically held at the Treasure Valley Community College or the neighboring Four Rivers Cultural Center. A Level 2 charging station at or near this location would enhance training and educational opportunities, giving participants the chance to see this technology and understand how it connects to the vehicles.

As discussed above, Idaho Power is actively working to support TE and has explored several projects and initiatives to accelerate TE. While Idaho Power has been promoting TE in both its Idaho and Oregon service areas, participation and interest in the Company's Oregon service area is low, which is likely due to the current state of the TE market and market barriers as discussed above. Idaho Power's proposed TE Plan, and its current TE Program and activities are integral in the Company's long-term strategy to address barriers to adoption and ultimately accelerate TE.

III. Expected Acceleration of TE (OAR 860-087-0030(3)(c))

It is difficult to predict how quickly TE will accelerate in Idaho Power's Oregon service area. Based on the market data discussed in previous sections, TE is practically nonexistent. Idaho Power believes that market barriers to adoption for its eastern Oregon customers are significant and it will take years for market transformation to occur in this remote, rural area. Nonetheless, Idaho Power is committed to increasing awareness of the benefits of EVs and ensuring that its customers have access to information and education.

As mentioned above, Idaho Power is particularly optimistic about the introduction of electric light-duty trucks and anticipates that it may have a positive impact on the acceleration of TE in the Company's Oregon service area. However, it will be important for these trucks to be affordable, powerful, and have long-range capabilities. Idaho Power's rural Oregon service area is home to many ranchers and farmers[22] who rely on trucks as their primary vehicle. The rurality and nearby mountain ranges of this area also make it attractive to recreationists that pull trailers, boats, and other recreational equipment.

Below is a sample of comments received in Idaho Power's May 2018 Driving Preferences survey among its Empowered Community. The Company has provided the survey as Attachment 2.

[22] Approximately 11 percent of Idaho Power's Oregon customers are irrigation customers.

Empowered Community Driving Preferences Survey May 14, 2018	
Q.	**What is most important to you in purchasing an EV?**
	A. Hauling capacity
	A. Pulling capability
	A. Power/towing capacity
	A. Power
	A. Towing
Q.	**Why would you be unlikely to purchase an EV even if the price and distance you could drive were comparable to a gas or diesel-powered vehicle?**
	A. Electric cars might work great for city folk, but when you need a truck to haul livestock and heavy loads, we need something with power that we can trust
	A. I need a vehicle that can tow a 30ft trailer. If an EV could do what a heavy-duty diesel can do, I would consider it
	A. You can't take EVs into the mountains
	A. Not interested in off-roading in an EV
	A. Won't tow my camp trailer
	A. Can't tow a horse trailer
	A. EVs make no sense at all in the rural west
	A. No place to charge in the outback or remote towns
	A. We like to go camping and I wouldn't want to haul around a generator just to charge my EV battery
	A. Can't pull a boat or trailer with an electric car

Although there is progress being made in this segment of the EV market, many of the electric truck models in development may not be available to the mass market, and specifically to the Oregon market, for many years.

In an interview with Bloomberg TV, General Motors ("GM") President Mark Reuss discussed the many hurdles that an electric pickup has to overcome before supplanting internal-combustion-engine trucks. Mr. Reuss stated that an electric pickup truck would take some time to come to fruition. He explained that electric pickup trucks will have to reach cost parity with gasoline-powered trucks or be cheaper; that many people buy trucks to earn a living, and no one will pay more for a work truck. Finally, he noted the importance of having an electric pickup perform as reliably as a gas-powered truck stating: "Customers will expect it to haul, tow, and travel great distances reliably without worrying about recharging or other malfunctions." Mr. Reuss gave no indication as to when GM would launch an electric truck.[23]

Idaho Power will be closely monitoring the development and launch of electric trucks so it can promote these vehicles among its customers and local dealerships.

[23] GM Explains Why an Electric Pickup Truck Will Take Time. June 13, 2019. https://www.motor1.com/news/354687/gm-electric-pickup-takes-time/

IV. Supporting Data and Analysis (OAR 860-087-0030(3)(d))

Where available, supporting data for the TE Plan has been provided throughout this document and in the attachments.

V. The Company's Potential Impact on the Competitive EV Supply Equipment Market (OAR 860-087-0030(3)(e))

Given the current state of the eastern Oregon market, it is premature to identify the Company's potential impact on the competitive EV supply equipment market. Idaho Power expects that any material impact on this market will not occur for several years until greater adoption is achieved. Idaho Power will be attentive to this component in future years as the TE market in its service area expands.

VI. System Impacts Resulting from Increased TE (OAR 860-087-0030(3)(f))

Not applicable. It will be many years before the Company's Oregon service area achieves a level of TE that will materially impact the system. Idaho Power will be attentive to this component in future years as the TE market in its Oregon service area expands. The Company expects that it will educate customers on efficient vehicle charging patterns, such as charging during off-peak times, and the opportunities to maximize benefits to the electrical system.

VII. TE Plan Relation to State Carbon Reduction Goals (OAR 860-087-0030(3)(g))

The current iteration of the Company's TE Plan is not likely to have a significant impact on Oregon's carbon reduction goals. However, Idaho Power will continue to support EV awareness and education in an effort to increase adoption over time. As customers transition to EVs, it is expected that local emissions will decrease and air quality will improve, supporting many of Oregon's state goals and initiatives.

Although the Company's TE Plan is not expected to have a direct impact on Oregon's carbon reduction goals in the near-term, Idaho Power is committed to reducing emissions and has set several goals to reduce its own carbon footprint, including:

- The Company has agreements in place to end its participation in two coal-fired plants and is exploring exiting its third and final coal plant.
- From 2010 to 2017, Idaho Power reduced carbon emissions from its resources by an average of 25 percent compared to 2005 levels. In 2018, Idaho Power's carbon emissions intensity was 46 percent lower than it was in 2005.[24]
- Idaho Power recently set a goal of 100 percent clean energy by 2045.[25]

[24] https://www.idahopower.com/energy-environment/energy/energy-sources/thermal/emissions-data/

[25] https://www.idahopower.com/energy-environment/energy/clean-today-cleaner-tomorrow/

REQUEST FOR ACCEPTANCE & WAIVER

Through the proposed TE Plan, Idaho Power intends to improve visibility and awareness of EVs in its Oregon service area through targeted education. The Company aims to support customers' transition from EV skeptics to EV advocates by providing education on the many benefits of EVs and addressing common misconceptions and barriers. In the long-run Idaho Power's TE Plan is expected to accelerate TE by increasing the adoption of EVs, as well as, increasing access to electricity as a form of transportation fuel. Although, the Company does not feel now is an appropriate time for launching a suite of public charging programs, it is preparing strategies for charging infrastructure investment in future years. Idaho Power will continue to develop its vision and strategy towards the acceleration of TE in its Oregon service area.

Idaho Power respectfully requests that the Commission issue an order finding that the Company's TE Plan meets the requirements of OAR 860-087-0020. The Company also requests that the Commission waive (per OAR 860-087-0001) OAR 860-087-0020(2)(d), which requires Idaho Power to present its TE Plan at a public meeting, if the Commission finds that presentation of the Company's modest TE Plan, reflecting the limited EV penetration in its Oregon service area, would not materially benefit the Commission.

Dated this 1st day of November 2019.

Idaho Power Company

Lisa D. Nordstrom

Lisa D. Nordstrom
Attorney for Idaho Power Company

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

IDAHO POWER COMPANY

Attachment 1
Electric Vehicle Brochures

November 1, 2019

Want to learn more?

Visit **idahopower.com/EV** to:

- / Calculate savings
- / Compare cars
- / Learn about tax credits and incentives
- / Find charging stations
- / Learn about providing charging stations at your business

Chevy Bolt

IDAHO POWERED™

With prices among the lowest in that nation, record reliable service and clean energy sources, Idaho Power proudly supports customer use of EVs. The company even has its own fleet of cost-effective, environmentally friendly EVs. These include passenger cars, pickup trucks, forklifts, bucket trucks and utility vehicles.

Idaho Power will continue to monitor EV technology and work with customers to add new charging stations so EVs can be enjoyed by all.

Nissan Leaf

Chevy Volt

Thinking about adding an
EV TO YOUR FLEET?
Come see ours in **ACTION**

Email us at ev@idahopower.com.

IDAHO POWER
An IDACORP Company

P.O. Box 70
1221 W. Idaho St.
Boise, ID 83702
idahopower.com

IDAHO POWER
An IDACORP Company

Electric Vehicles

What are the benefits of electric vehicles (EV)?

Fuel savings
Mile for mile, it costs less than half to fuel an EV compared to a gas-powered vehicle. And with electricity prices among the lowest in the nation, Idaho Power makes charging EVs affordable.

Better air quality
With low or no tailpipe emissions, EVs reduce air pollution.

Less maintenance
All-electric vehicles have fewer moving parts and fewer fluids, resulting in lower maintenance costs. Also, most EVs come with a manufacturer warranty of up to 10 years or 100,000 miles.

Performance
With instant acceleration, EVs are fun, quiet and easy to drive.

Compare EV options and federal tax credits at **idahopower.com/ev**

What are the types of EVs?

All-electric
All-electric vehicles have a battery and an electric motor instead of a gas tank and an internal combustion engine. They run entirely on electricity and do not produce exhaust from the burning of fossil fuels. They are "fueled" by plugging into an outlet.

Plug-in Hybrid
Hybrid EVs have a battery and an electric motor, as well as a gas-powered internal combustion engine. These EVs can run off the battery, then switch to gas power when the battery is depleted. Like all-electric EVs, hybrid EVs are plugged in to charge the battery.

How far can EVs travel?

Different EVs can travel different distances before needing to be charged (called range), but most EVs can travel well over 100 miles per charge. Some EVs can even travel over 300 miles per charge! This range gets most drivers easily through their typical commute for several days.

TIP: Use the timer on your car or charger to manage when you charge. Charging after 9 p.m. helps keep prices lower for everyone.

How are EVs charged?

EVs can be fueled by simply plugging them into an outlet connected to the power grid. There are different types, or levels, of outlets that charge at different speeds. The time it takes to charge will depend on the size of the battery, how full it is and the type of charger. Since most people drive less than 30 miles a day, it may only take a short time to top off the battery each night.

A standard household 120-volt outlet (called a Level 1 charger) may be used but takes longer to charge — 9 to 24 hours for full charge.

A faster charging outlet (called a Level 2 charger) fully charges in 4 to 6 hours and can be installed in homes but require additional equipment.* More efficient chargers are labeled ENERGY STAR®.

Fast-charging stations (called DC fast chargers) are available along interstate corridors for long-distance travelers. In the time it takes to take a break or stop for lunch (25 to 40 minutes), EVs can fully recharge at these stations.

Where can I charge my EV?

Outside of the home, EV charging stations are available to use throughout the country. You can find these stations by visiting **idahopower.com/EV** or **plugshare.com**.

*Idaho Power recommends talking to an electrician to see if electric-service changes are needed for any electrical work.

Fluctuating gas prices, advancements in battery technology, environmental concerns and federal incentives have all led to an increased interest in electric vehicles (EVs). As your electricity provider, Idaho Power is preparing for accelerated consumer adoption of EVs and wants to help our customers better understand the technology.

How much energy does it take to charge an EV?

It takes about 0.3 kilowatt hours (kWh) to go one mile in an EV. So for example, a 10-mile commute to work would require 3 kWh of electricity.

DOE's eGallon calculator provides up-to-date gasoline vs. electricity prices at: www.energy.gov/maps/egallon.

IDAHO POWERED™

What about Idaho Power's Time of Day plan?

We're encouraging EV owners to consider our Time of Day pricing plan instead of the Standard plan. The Time of Day plan has lower prices weekdays after 9 pm and all day on weekends and holidays. This option could save you money and, by charging during off hours, you'll help even out demand on the power grid. For more information, visit idahopower.com/TOD.

The first step to determining which plan is right for you is to register to use myAccount. Signing up is easy and you'll get access to detailed information about your account and energy use. To enroll, go to idahopower.com/register.

Learn more at
idahopower.com/ev

IDAHO POWER
An IDACORP Company

P.O. Box 70
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Boise, ID 83702
www.idahopower.com

IDAHO POWER
An IDACORP Company

Electric Vehicle HOME CHARGING

IDAHO POWERED™

What is an EV?

EVs run off an electric motor and a battery pack. They're powered entirely by electricity and have low to no emissions. Also referred to as Battery Electric Vehicles (BEVs) or Plug-in Electric Vehicles (PEVs), EVs are charged by plugging into a charging station.

Example: Nissan Leaf

Plug-In Hybrid Electric Vehicles (PHEVs) are hybrids with larger battery packs and an Internal Combustion Engine. PHEVs can be plugged into a charging station to recharge their battery pack(s) or run off gasoline.

Example: Chevy Volt

What are the benefits of owning an EV?

Fuel savings: Electricity as a fuel can be significantly cheaper than gasoline or diesel.

Better air quality: EVs are low to no emissions vehicles, which improves air quality.

Local fuel: More than half of Idaho Power's energy is generated in our service area, meaning your fuel dollars stay at home.

Less maintenance: EVs have far fewer moving parts to be maintained than traditional vehicles.

Performance: Unlike traditional engines, EVs are always "on," meaning instant acceleration.

I'm interested – how do I charge it?

EVs are powered all or in part by electricity. The time it takes for a full charge depends on the type of vehicle, temperature, driving habits and the type of charging station, among other factors.

There are three options for charging:

Level 1 – 120V, dedicated 15-20A circuit.
Used both at home and work, Level 1 charging draws a lower electrical demand but takes longer to charge a car than the other options.

Level 2 – 240V, dedicated 30-40A circuit.
Typically found at businesses and public sites, these units are also available for home use. This type of unit will recharge an EV much faster than Level 1, allowing multiple users throughout the day. Home EV charging stations typically range from $600 to $800 plus installation. Installation costs vary and will be higher if wiring or electrical service upgrades are needed.

DC Fast Charging – 480V.
These units are typically found at public facilities. Note that not all EVs are equipped for fast charging.

Visit **www.PlugShare.com** to find public charging locations in your area.

Charging at Home

EVs all come with a Level 1, 120 Volt charging cord that can be plugged into a standard electric socket, providing a slow charge. While the Level 1 may work well for a plug-in electric hybrid, it may not be sufficient for an all electric vehicle, which can take overnight or longer to fully charge at 120 Volts.

For faster charging, you'll want a Level 2 charging station. Level 2 stations require a dedicated 208/240 Volt circuit, similar to wiring used for electric clothes dryers.

Placement

Consider where you'll park your EV. Make sure the cord is long enough to reach your parking spot. For stations installed outdoors, ensure the unit is rated for outdoor weather.

Compatibility

Make sure the station you choose is compatible with the make, model and year of vehicle and your electrical service. The speed a car can charge is measured in kilowatts (kW) or Amps and can vary depending on the car. The more kilowatts or amps, the faster the charge. If your electrical service panel can handle it, you'll likely want a charging station that can charge as fast as your car can accommodate.

Where to buy a charging station

Charging stations can be purchased online through a variety of retailers. Your vehicle manufacturer may offer recommendations or discounts on specific products.

Idaho Power recommends using a licensed electrician for any home or workplace electrical work.

Fluctuating gas prices, advancements in battery technology, environmental concerns and federal incentives have all led to an increased interest in electric vehicles (EVs). As your electricity provider, Idaho Power is preparing for accelerated consumer adoption of EVs and wants to help our customers better understand the technology.

What is an EV?

EVs run off an electric motor and a battery pack. They're powered entirely by electricity and have zero tailpipe emissions. Also referred to as Battery Electric Vehicles (BEVs) or Plug-in Electric Vehicles (PEVs), EVs are charged by plugging into a charging station. **Example: Nissan Leaf.**

Plug-In Hybrid Electric Vehicles (PHEVs) are hybrids with larger battery packs and an Internal Combustion Engine. PHEVs can be plugged into a charging station to recharge their battery pack(s) or run off gasoline. **Example: Chevy Volt.**

Nissan Leaf

Chevy Volt

IDAHO POWERED™

Idaho Power's leading the way:

To get familiar with the technology, Idaho Power has added several passenger EVs to our fleet, as well as hybrid-electric bucket trucks, electric utility vehicles and battery-assisted trucks. We also installed five charging stations of varying make and model at our Downtown Boise office, specifically for employee workplace charging. We will continue to monitor advancements in EV and charging station technology to make sure our customers have the information they need.

Email **ev@idahopower.com** for information.

Want to see
CHARGING STATIONS
in ACTION?
Schedule a visit.

Learn more at
idahopower.com/ev

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EV WORKPLACE Charging

Charging an EV

EVs are powered all or in part by electricity. The time it takes for a full charge depends on the type of vehicle, temperature, driving habits and the type of charging station, among other factors.

There are three options for charging:

Level 1 – 120V, dedicated 15-20A circuit.
Used both at home and work, Level 1 charging draws a lower electrical demand but takes longer to charge a car than the other options.

Level 2 – 240V, dedicated 30-40A circuit.
Typically found at businesses and public sites, these units are also available for home use. This type of unit will recharge an EV much faster than Level 1, allowing multiple users throughout the day.

DC Fast Charging – 480V.
These units are typically found at public facilities. Note that not all EVs are equipped for fast charging.

Compare EV options and Federal Tax Credits at **www.fueleconomy.gov**

Workplace Charging

Installing workplace charging stations for employee, customer and fleet vehicles offers a low-cost benefit that will expand your business' transportation and parking options. Charging at work or in public places can help EV drivers double their all-electric daily commuting range and provides a charging location for employees and customers without access to home charging. Level 1 and 2 charging stations cost anywhere from $1,000 to over $7,500, depending on the number of ports and functionality. Installation costs are additional.

For employees: Most employees spend 40 hours a week or more at work, and studies show that next to home, work is the preferred place to charge.

For your fleet: Adding EVs to your company fleet demonstrates your company's commitment to sustainability. EVs are fun to drive, easy to maintain, and may even reduce your business' transportation-related operating costs.

For your customers: Installing charging stations for customers with EVs provides a convenient way to recharge while they visit your business, and may encourage them to stay longer or visit more frequently.

Visit **www.PlugShare.com** to find public charging locations in your area.

How much energy does it take to charge an EV?

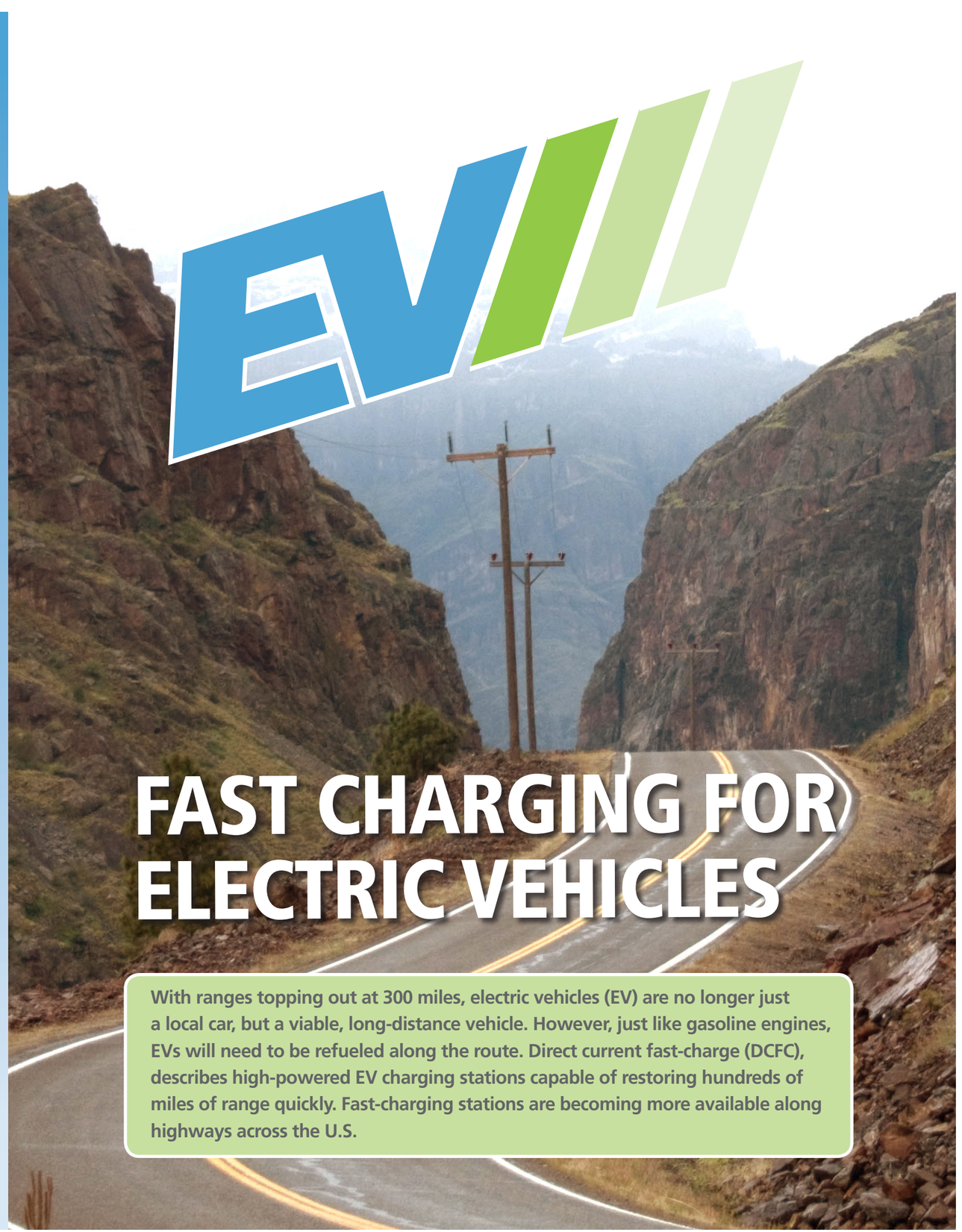
It takes about 0.3 kilowatt hours (kWh) to go one mile in an EV. So for example, a 10-mile commute to work would require 3 kWh of electricity.

DOE's eGallon calculator provides up-to-date gasoline vs. electricity prices at: **www.energy.gov/maps/egallon**.

I'm Ready to Buy – What's Next?

- Choose the EV charging station that best suits your needs.
- Consult with the product manufacturer on any special installation requirements.
- Get bids from contractors and electricians before proceeding.
- Ensure all local, state, and federal codes are met.

Idaho Power recommends using a licensed electrician for any home or workplace electrical work.



FAST CHARGING FOR ELECTRIC VEHICLES

With ranges topping out at 300 miles, electric vehicles (EV) are no longer just a local car, but a viable, long-distance vehicle. However, just like gasoline engines, EVs will need to be refueled along the route. Direct current fast-charge (DCFC), describes high-powered EV charging stations capable of restoring hundreds of miles of range quickly. Fast-charging stations are becoming more available along highways across the U.S.

DIRECT CURRENT FAST CHARGE (DCFC) BASICS

- A DCFC station is equivalent to a fuel pump serving one or two cars at a time.
- There are three standard plug types, 1) CHAdeMO, 2) SAE Combined Charging System (CCS), and 3) Tesla. Tesla vehicles come with adaptors to use the CHAdeMo and CCS systems.
- Not all vehicles can take a fast charge. For some, it's an option at time of purchase.
- DCFC operates at 480 volts and comes in a range of capacities, typically 50 kilowatts (kW), 150 kW and 350 kW.
- The higher the capacity, the faster the charge.
- EV charging time depends on the battery size, how full it is and station's power level (measured in kW). The larger the battery, the longer charging time. The higher the station's power level, the faster charging time. The rate is limited by the capacity of the EV or the capacity of the station, whichever is smaller. Many of today's EV can be filled in as little as 30 minutes. As capacity for both stations and cars increase, DCFC stations are expected to fill a car in 10 minutes or less.
- Many states, including Idaho, allow entities other than the local utility company to sell electricity if used for EV charging. Station operators may set the price for charging. Many EV station suppliers offer management services, including setting real-time market pricing.

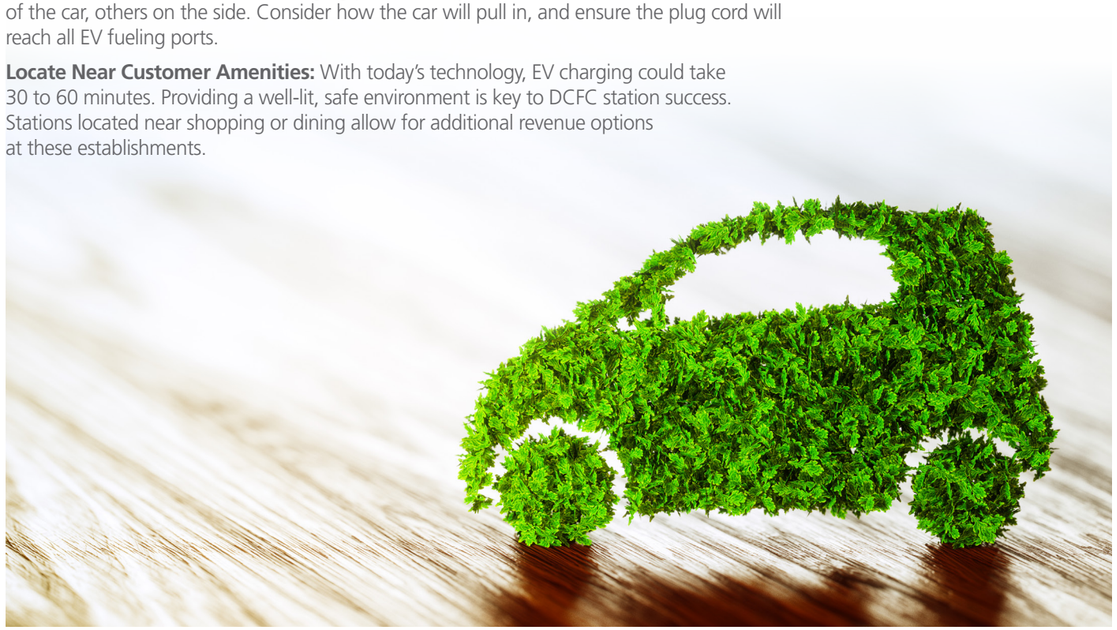
THINKING OF INSTALLING DCFC?

Plan to Expand: DCFC and EV technologies are evolving rapidly. Although today's vehicles typically take less than 100 kW at one time, battery range should catch up to current DCFC station technology and pull electricity at 150 – 350 kW.

- When developing the site, consider sizing conduit and electrical needs to accommodate for future expansion.
- Ensure there is enough space to expand.
- Look for modular charging systems that allow you to connect two smaller stations into one faster one.

Placement: The location of the charging port varies by vehicle. Some ports are on the front of the car, others on the side. Consider how the car will pull in, and ensure the plug cord will reach all EV fueling ports.

Locate Near Customer Amenities: With today's technology, EV charging could take 30 to 60 minutes. Providing a well-lit, safe environment is key to DCFC station success. Stations located near shopping or dining allow for additional revenue options at these establishments.



DCFC INSTALLATION COSTS

Installation Costs: Installation costs depend on several factors, including number of stations, electrical equipment and transformers, distance from electrical source and associated boring, trenching and conduit. Expect costs ranging from $100,000 to $200,000 or more depending on the number and capacity of stations.

Item	Range	Description
Station Hardware and Software	$35,000 to $50,000 per station	Cost increases based on capacity (kW), and features, such as credit card processing and communications software
Onsite Electrical Upgrades	$20,000 to $45,000	Cost for transformer, trenching and conduit. Does not include permits, engineering or unusual site conditions.
Off-site Electrical Upgrades	Varies	In some cases, off-site upgrades to the distribution system may be required. These can include feeder or substation upgrades.
Other Costs*	$20,000 to $40,000	May include site acquisition, permits, electrical gear, installation, engineering and site improvements
*From denvergov.org/content/dam/denvergov/Portals/771/documents/EQ/EV/EVFinalReport.pdf		

To minimize installation costs:

- Site carefully. Costs vary depending on the location of the station to the current electrical infrastructure.
- Consider future expansion when designing the site, laying conduit and selecting equipment.
- Work with your local electric utility.
  - Will the size of the system move you to a different electric rate?
  - Will your proposal need electric infrastructure upgrades, such as a new transformer? Who pays that costs?
  - What if I expand in the future? What can be done now to minimize costs?

ON-GOING OPERATING COSTS

Monthly Operating Costs: Operating a DCFC station generally involves two on-going costs: 1) Electricity purchase and 2) operation and maintenance. Station owners can charge drivers for the use of the station. As EV adoption increases, station use may become high enough to cover these costs.

Electricity: Typical utility billing rates for businesses are broken down into two components 1) an energy charge based on how much energy is used measured in kilowatt-hours (kWh) and 2) a demand charge, based on the highest rate of electrical flow or current used that month, measured in kW. The demand charge is set as soon as a single vehicle plugs in for 15 minutes.

Total Capacity	Estimated Monthly Electricity Costs Low Use (2 cars/month)	Estimated Monthly Electricity Costs High Use (100 cars/month)
One 50-kW DCFC	$270	$500
One 150-kW DCFC	$770	$1,000
One 300-kW DCFC or two 150-kW stations used at the same time	$1,520	$1,750
Assumes: $5/kW demand charge and 4¢/kWh energy charge and full-use capacity of station. Check with your local utility for rates.		

To minimize electric costs: Talk to the station manufacturer about ways to mitigate the demand charge. Look for stations that can be set to limit the total capacity. For example, a 150-kW station could be set to only allow 50 or 100 kW of charge. The EV charging time will be longer, but this option allows the site to minimize the demand charge when low use is expected. Stations can stay competitive by increasing output as usage rates increase.

Operation and Management: Talk to the station providers about fees for software and networking services. Services include warranty services, remote management, maintenance and troubleshooting, credit card processing and data management. These services are needed to charge drivers for station use and display station on mobile apps.

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

IDAHO POWER COMPANY

Attachment 2
May 2018 Empowered Community
Driving Preferences Survey

November 1, 2019

empowered community

Driving Preferences Survey

May 14, 2018

Driving Preferences Survey

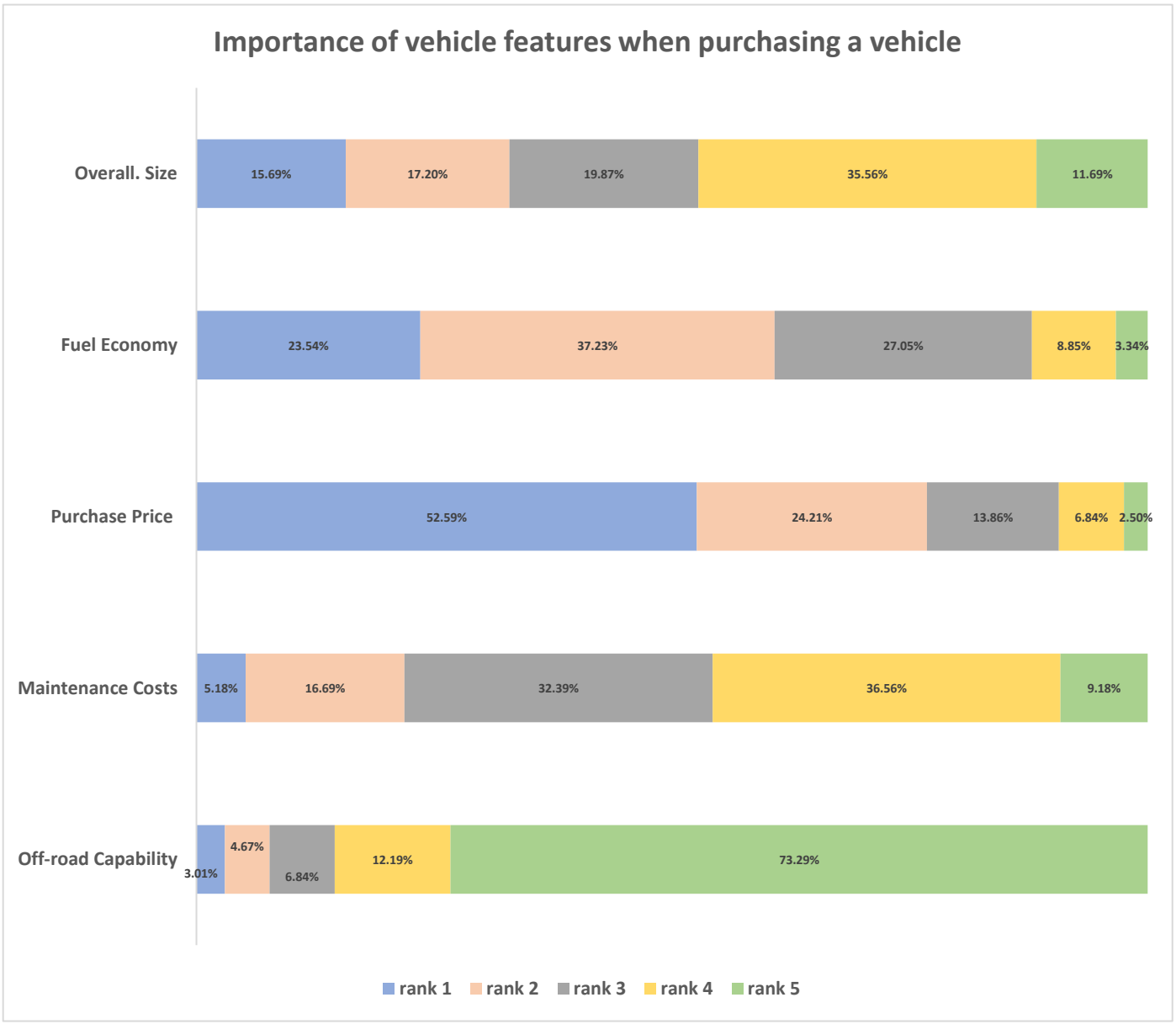
- Survey was sent to 1,096 em**powered** community members.
- 599 community members completed the survey for a 55% response rate.
- 25% of respondents were from the CanyonWest region, 52% from the Capital region and 23% from the SouthEast Region.
- 44% of respondents were Male and 56% Female.
- 13% of respondents were 34 or younger, 37% were between the ages of 35 and 54, 45% were between the ages of 55 and 74 and 5% were 75 or older.
- 34% of respondents have been an Idaho Power customer for 10 years or less, 34% have been customers between 10 and 25 years and 32% have been customers for more than 25 years.
- 5% of respondents have some high school education or a high school diploma, 24% have some college education 45% are college graduates and 27% have some graduate education or a graduate
- 77% of respondents own their home and 12% rent.

Importance of vehicle features when purchasing a vehicle.

QUESTION TOTAL: 599

DID NOT ANSWER: 0

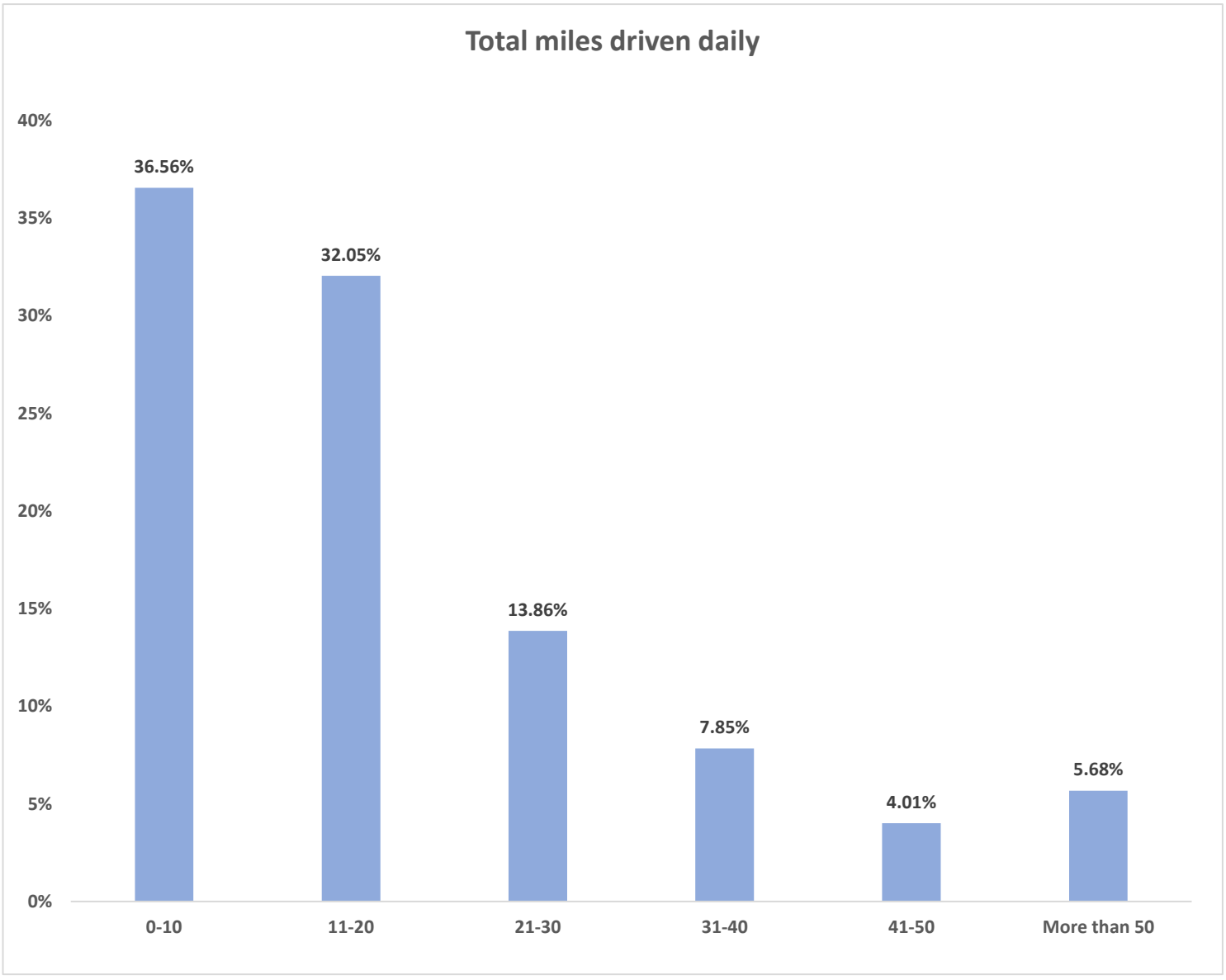
	Overall. Size	Fuel Economy	Purchase Price	Maintenance Costs	Off-road Capability
rank 1	15.69%	23.54%	52.59%	5.18%	3.01%
rank 2	17.20%	37.23%	24.21%	16.69%	4.67%
rank 3	19.87%	27.05%	13.86%	32.39%	6.84%
rank 4	35.56%	8.85%	6.84%	36.56%	12.19%
rank 5	11.69%	3.34%	2.50%	9.18%	73.29%



How many total miles do you typically drive per day (including any daily commute)?

QUESTION TOTAL:	599
DID NOT ANSWER:	0

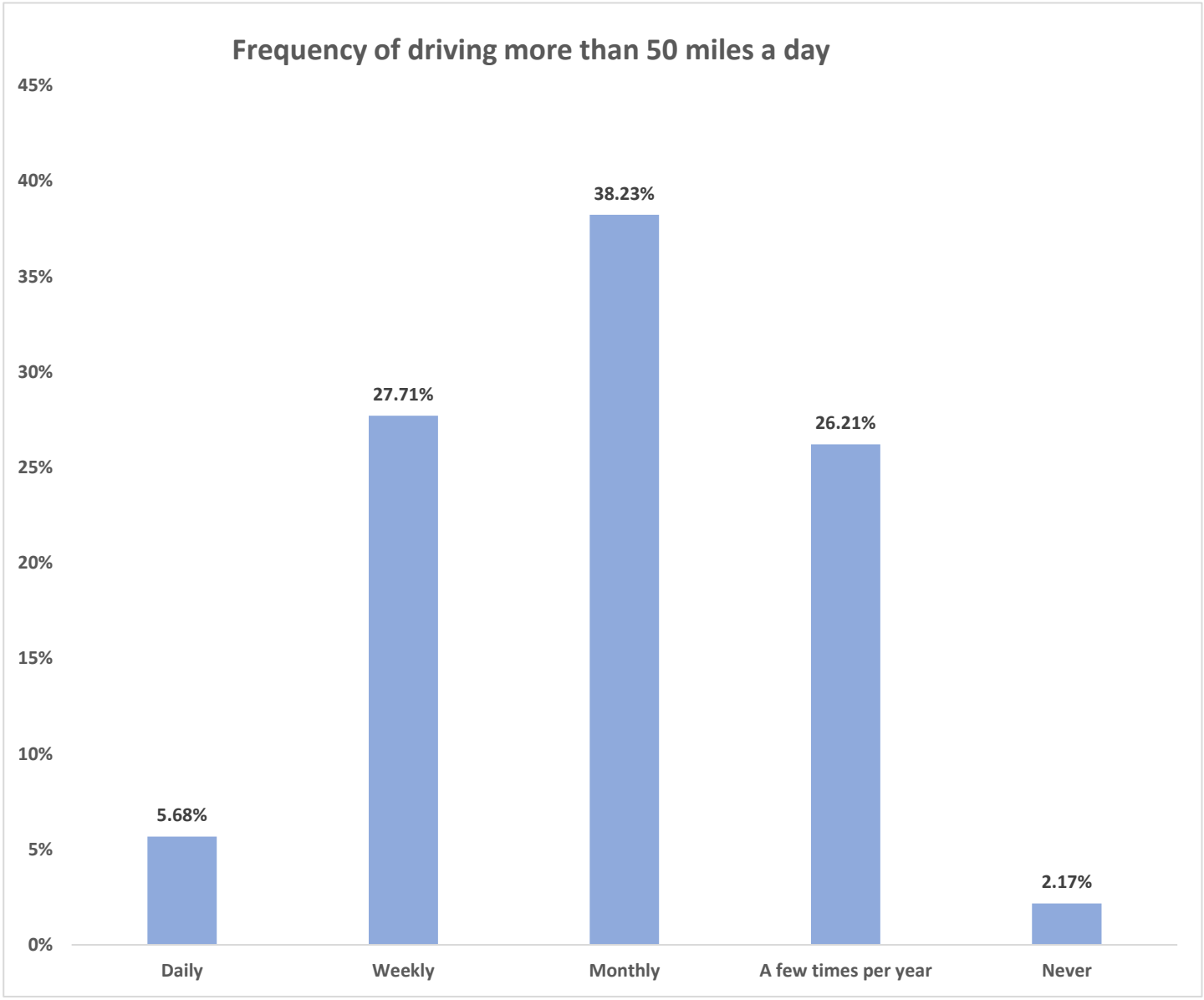
	TOTAL	PERCENT
0-10	219	36.56%
11-20	192	32.05%
21-30	83	13.86%
31-40	47	7.85%
41-50	24	4.01%
More than 50	34	5.68%



Overall, considering all driving you do, how often would you say you drive more than 50 miles in a day?

QUESTION TOTAL:	599
DID NOT ANSWER:	0

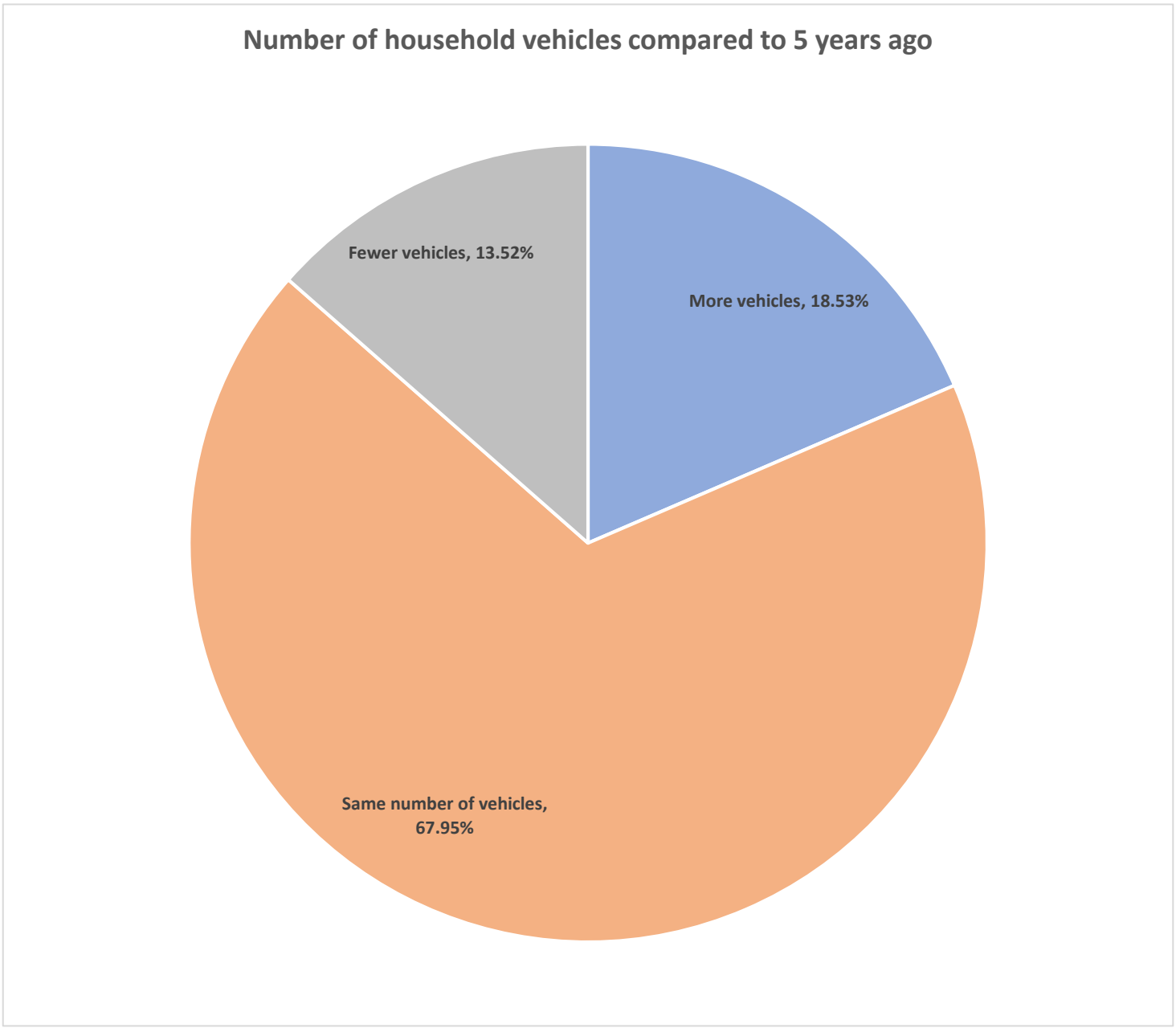
OPTIONS	TOTAL	PERCENT
Daily	34	5.68%
Weekly	166	27.71%
Monthly	229	38.23%
A few times per year	157	26.21%
Never	13	2.17%



Does your household own more or fewer vehicles than you did 5 years ago?

QUESTION TOTAL:	599
DID NOT ANSWER:	0

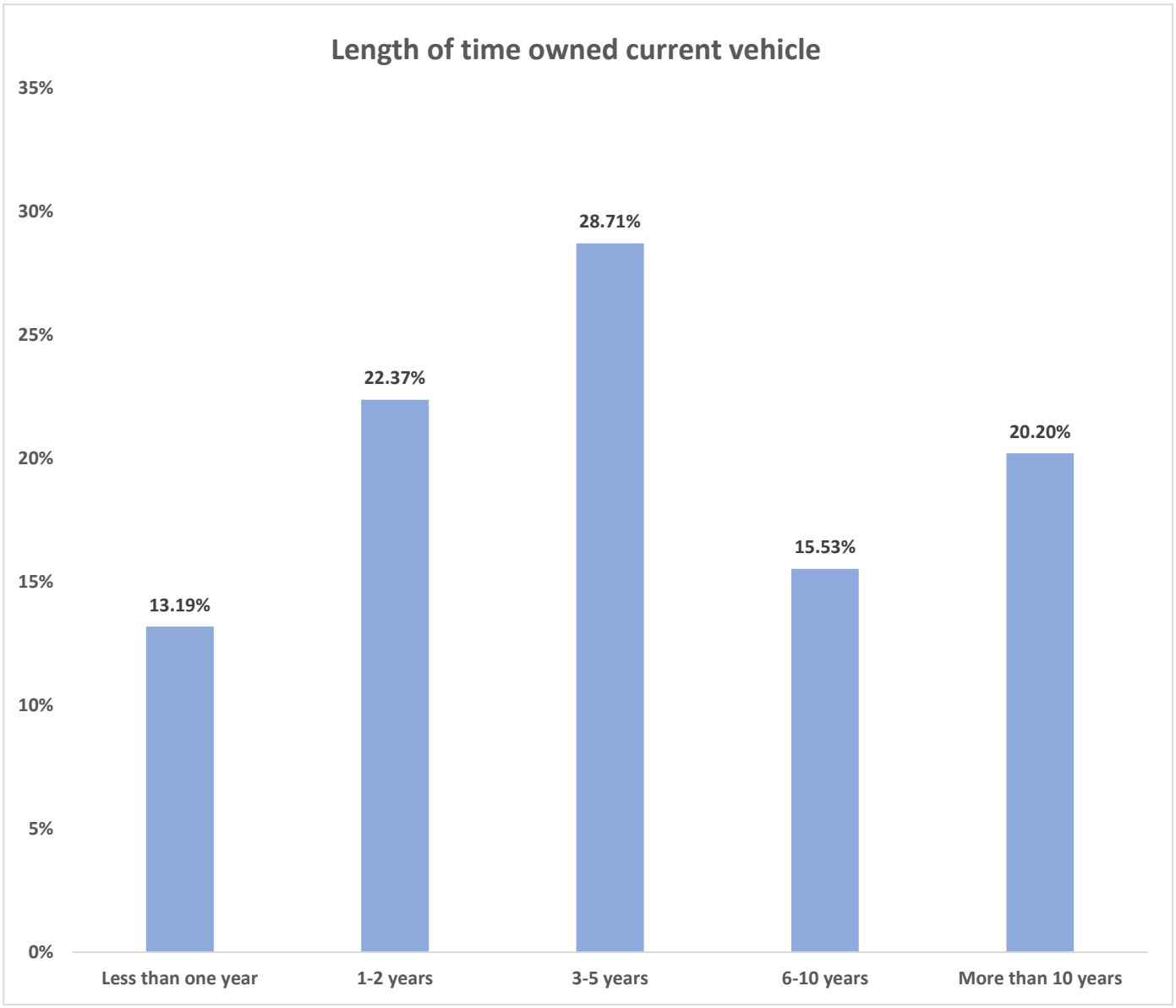
OPTIONS	TOTAL	PERCENT
More vehicles	111	18.53%
Same number of vehicles	407	67.95%
Fewer vehicles	81	13.52%



How long have you owned your current vehicle (the one you drive most often)?

QUESTION TOTAL:	599
DID NOT ANSWER:	0

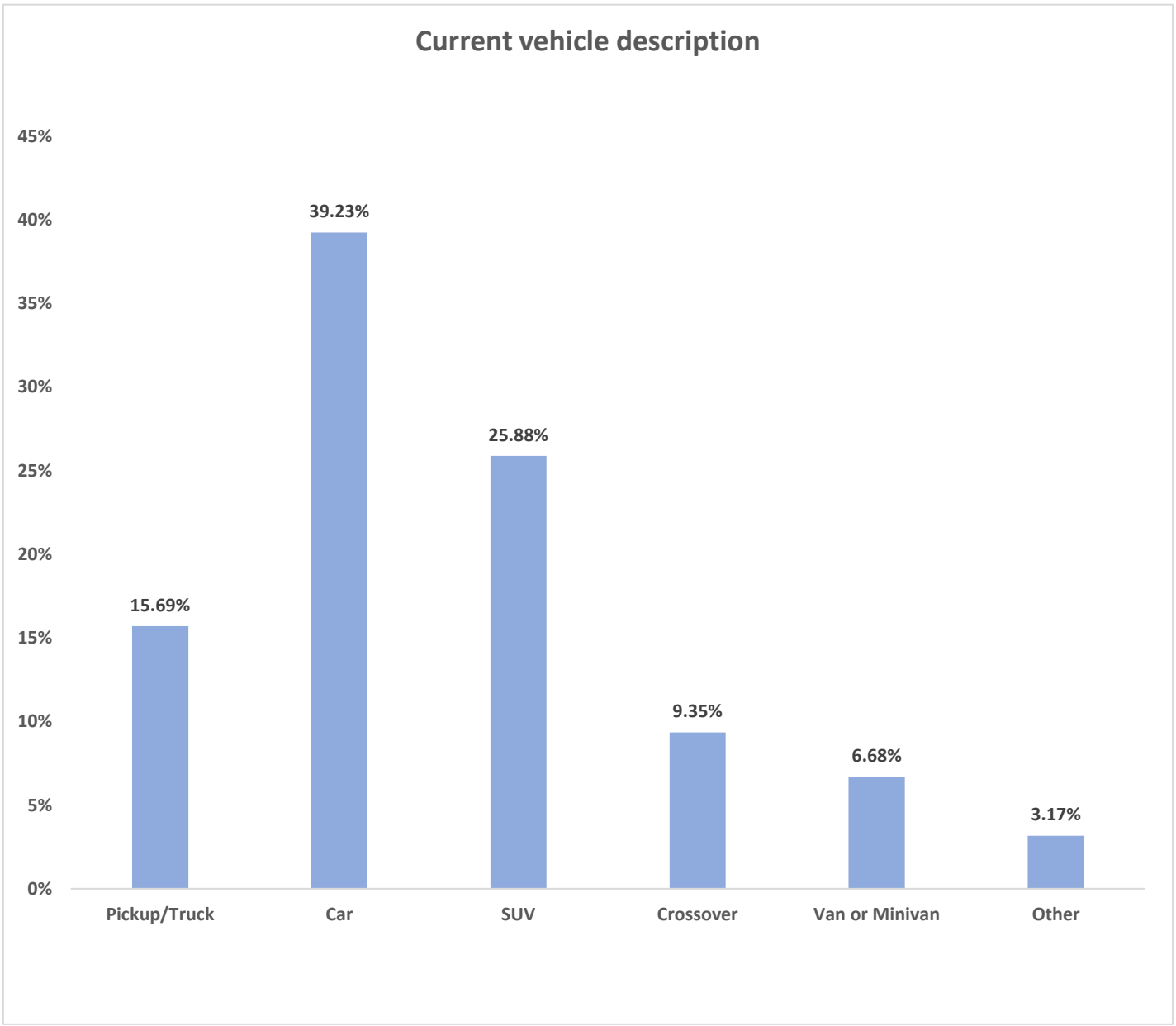
OPTIONS	TOTAL	PERCENT
Less than one year	79	13.19%
1-2 years	134	22.37%
3-5 years	172	28.71%
6-10 years	93	15.53%
More than 10 years	121	20.20%



Which of the following would best describe your current vehicle (the one you drive most often)?

QUESTION TOTAL:	599
DID NOT ANSWER:	0

OPTIONS	TOTAL	PERCENT
Pickup/Truck	94	15.69%
Car	235	39.23%
SUV	155	25.88%
Crossover	56	9.35%
Van or Minivan	40	6.68%
Other	19	3.17%



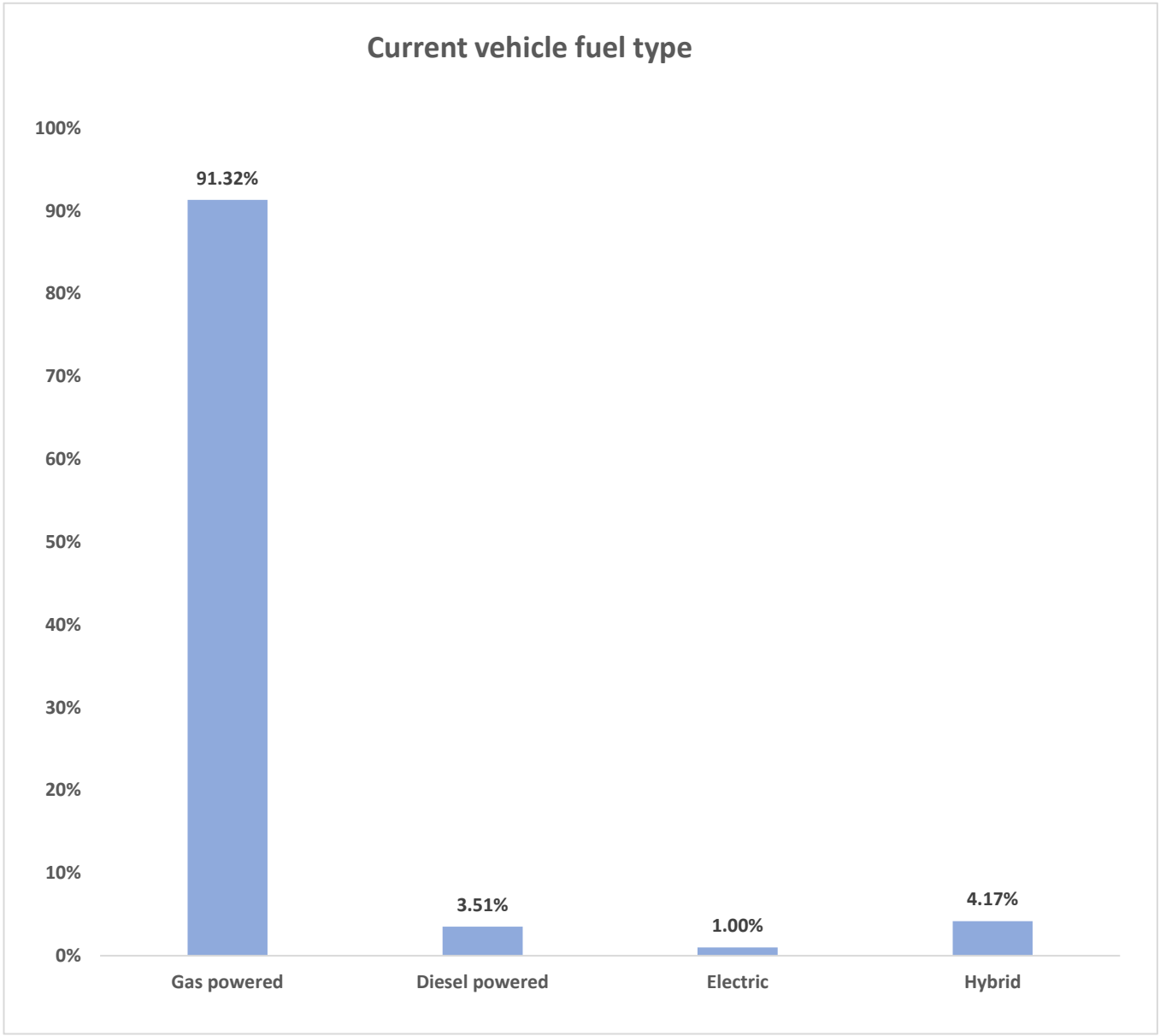
Other (please specify)
Jeep
station wagon
I don't own a vehicle.
Hybrid car
All Wheel Drive
Hybrid
Wagon
Accessible minivan
Outback wagon
awd
Bicycle. I have not owned a car for 7 years.
none
sports car Audi TT
dont own a vehicle
Wagon
Wagon
Jeep
Hybrid crossover
wagon

Which of the following would best describe how your current vehicle (the one you drive most often) is powered ?

QUESTION TOTAL: 599

DID NOT ANSWER: 0

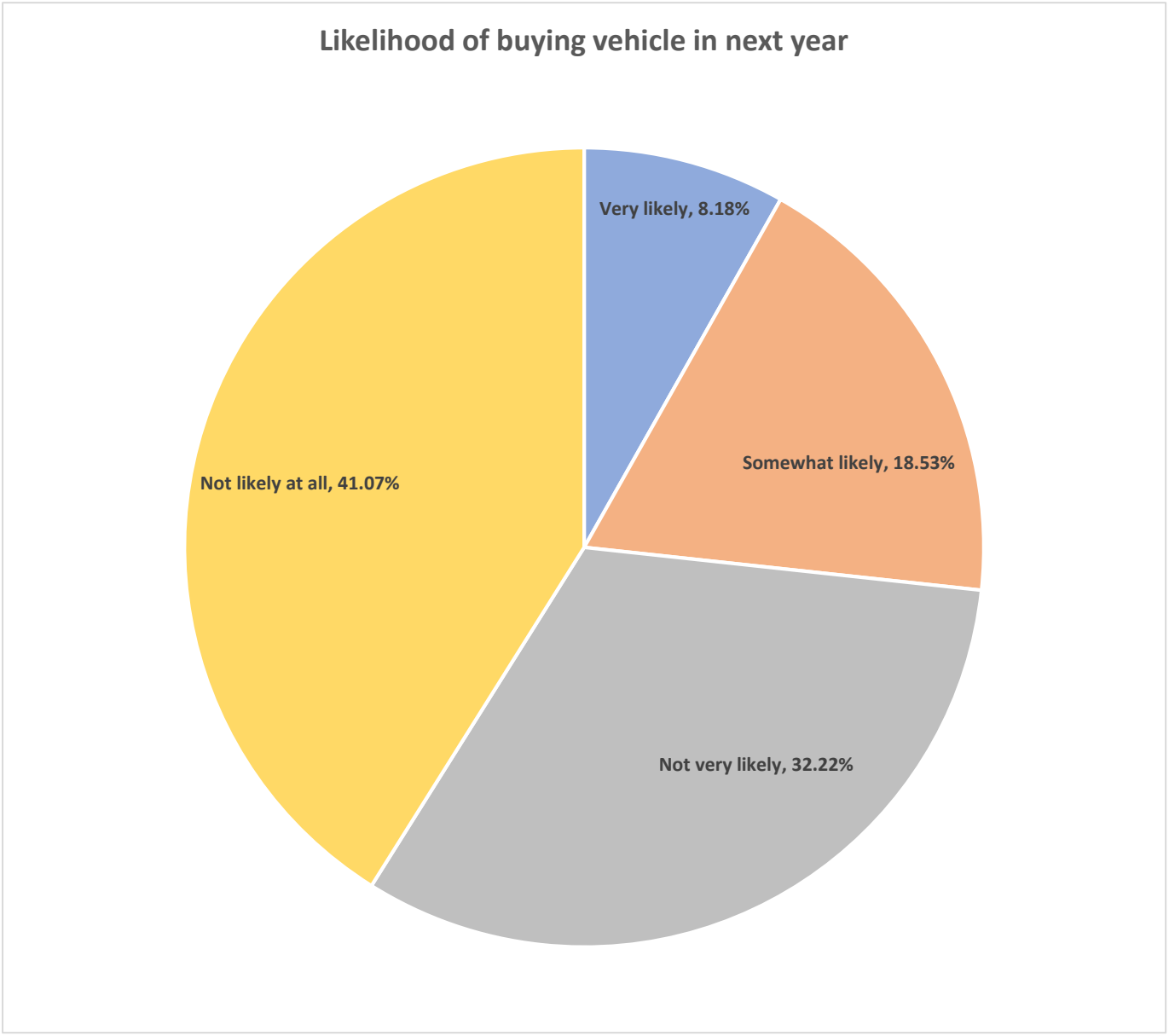
OPTIONS	TOTAL	PERCENT
Gas powered	547	91.32%
Diesel powered	21	3.51%
Electric	6	1.00%
Hybrid	25	4.17%



How likely are you to buy a vehicle within the next year?

QUESTION TOTAL:	599
DID NOT ANSWER:	0

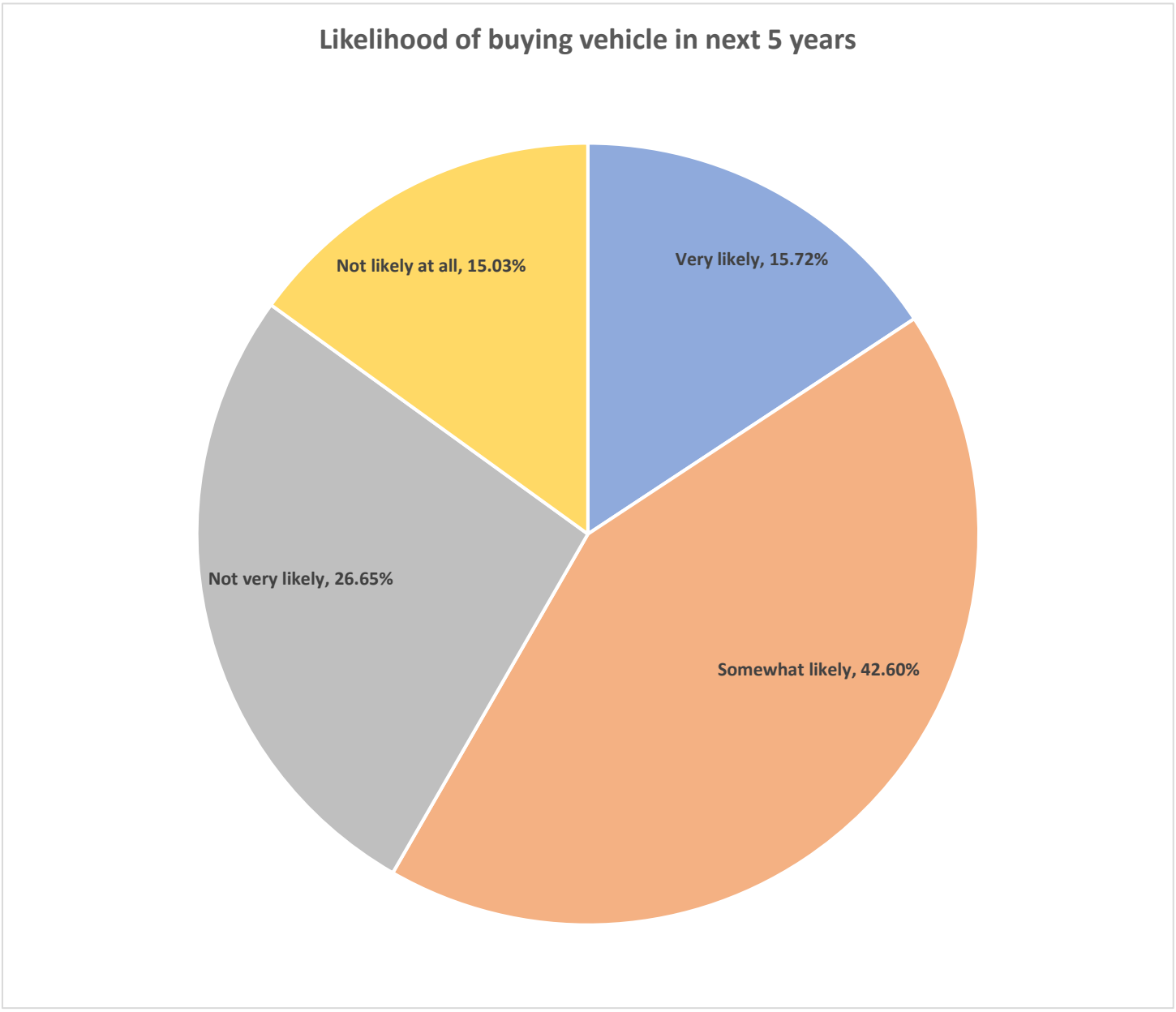
OPTIONS	TOTAL	PERCENT
Very likely	49	8.18%
Somewhat likely	111	18.53%
Not very likely	193	32.22%
Not likely at all	246	41.07%



How likely are you to buy a vehicle within the next 5 years?

QUESTION TOTAL:	439
DID NOT ANSWER:	0

OPTIONS	TOTAL	PERCENT
Very likely	69	15.72%
Somewhat likely	187	42.60%
Not very likely	117	26.65%
Not likely at all	66	15.03%

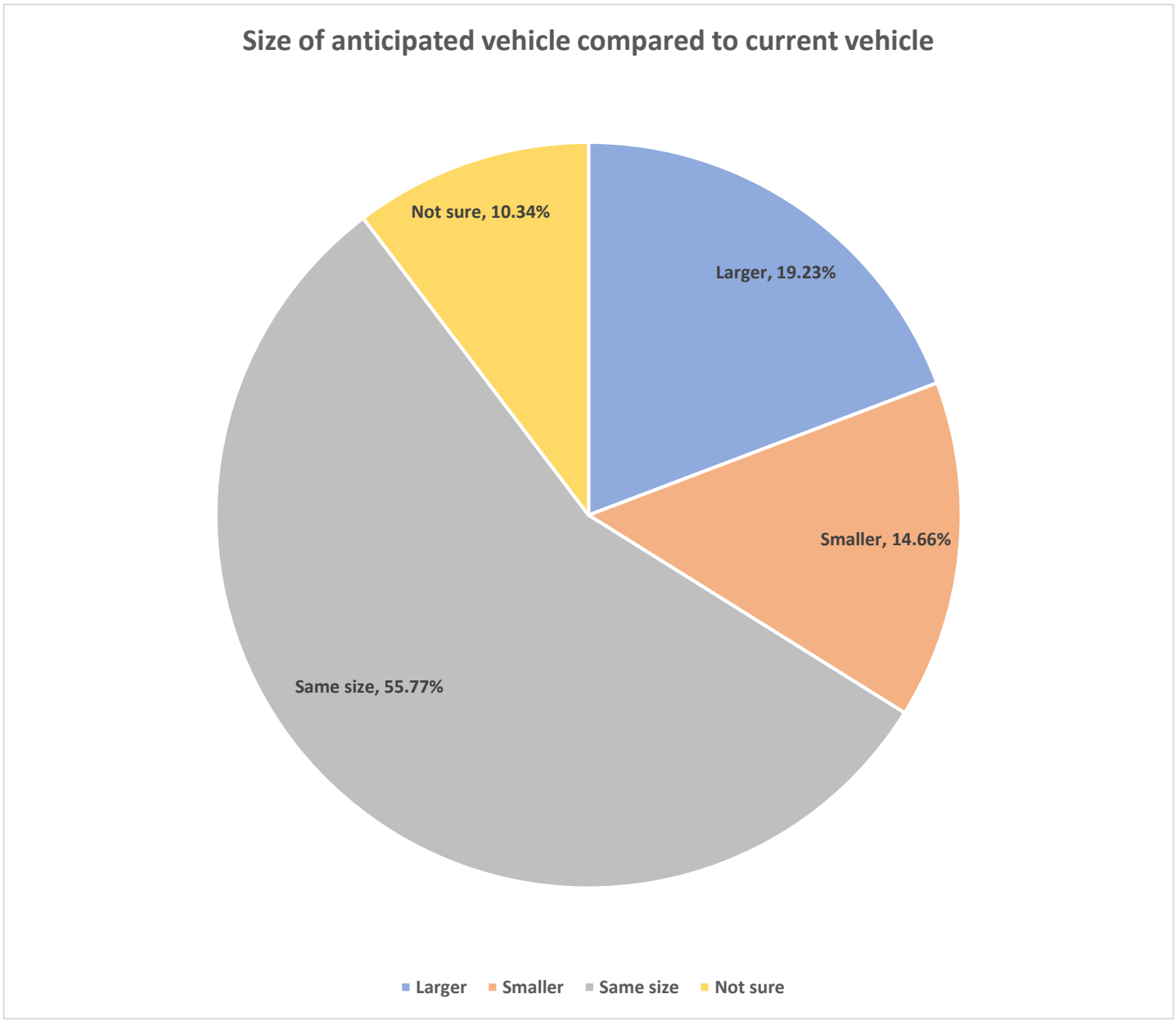


Do you anticipate the new vehicle you buy will be smaller, larger or the same size as the current vehicle you drive most often?

QUESTION TOTAL: 416

DID NOT ANSWER: 0

OPTIONS	TOTAL	PERCENT
Larger	80	19.23%
Smaller	61	14.66%
Same size	232	55.77%
Not sure	43	10.34%



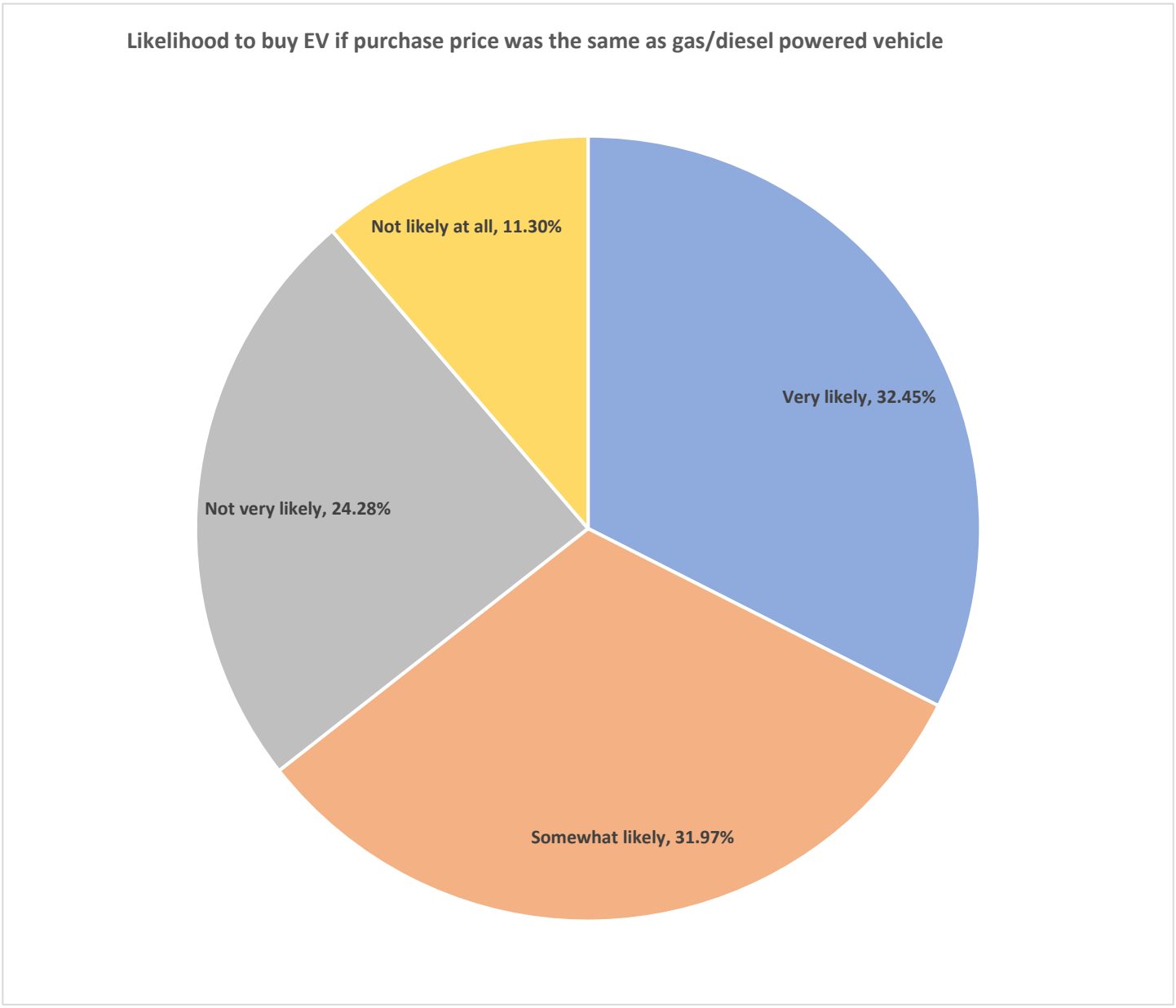
asked only of respondents who will buy a new vehicle in the next year or next 5 years

If the purchase price of a new vehicle of your choice was the same for an electric and a traditional gas or diesel powered vehicle, how likely would you be to purchase the electric powered version of the vehicle?

QUESTION TOTAL: 416

DID NOT ANSWER: 0

OPTIONS	TOTAL	PERCENT
Very likely	135	32.45%
Somewhat likely	133	31.97%
Not very likely	101	24.28%
Not likely at all	47	11.30%



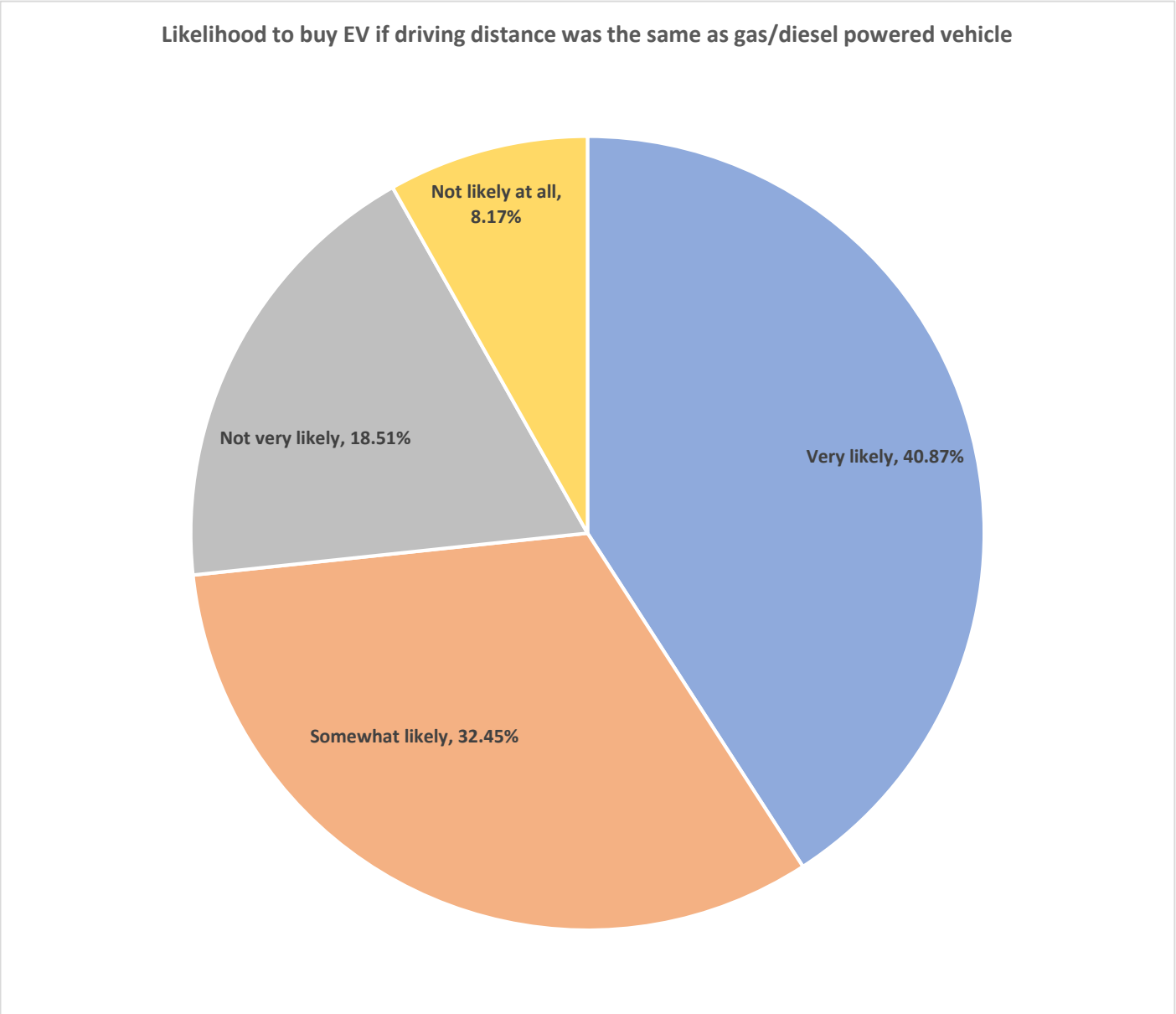
asked only of respondents who will buy a new vehicle in the next year or next 5 years

If the distance you could drive on a tank of gas or battery charge was the same for an electric and a traditional gas or diesel powered vehicle, how likely would you be to purchase the electric powered version of the vehicle of your choice?

QUESTION TOTAL: 416

DID NOT ANSWER: 0

OPTIONS	TOTAL	PERCENT
Very likely	170	40.87%
Somewhat likely	135	32.45%
Not very likely	77	18.51%
Not likely at all	34	8.17%



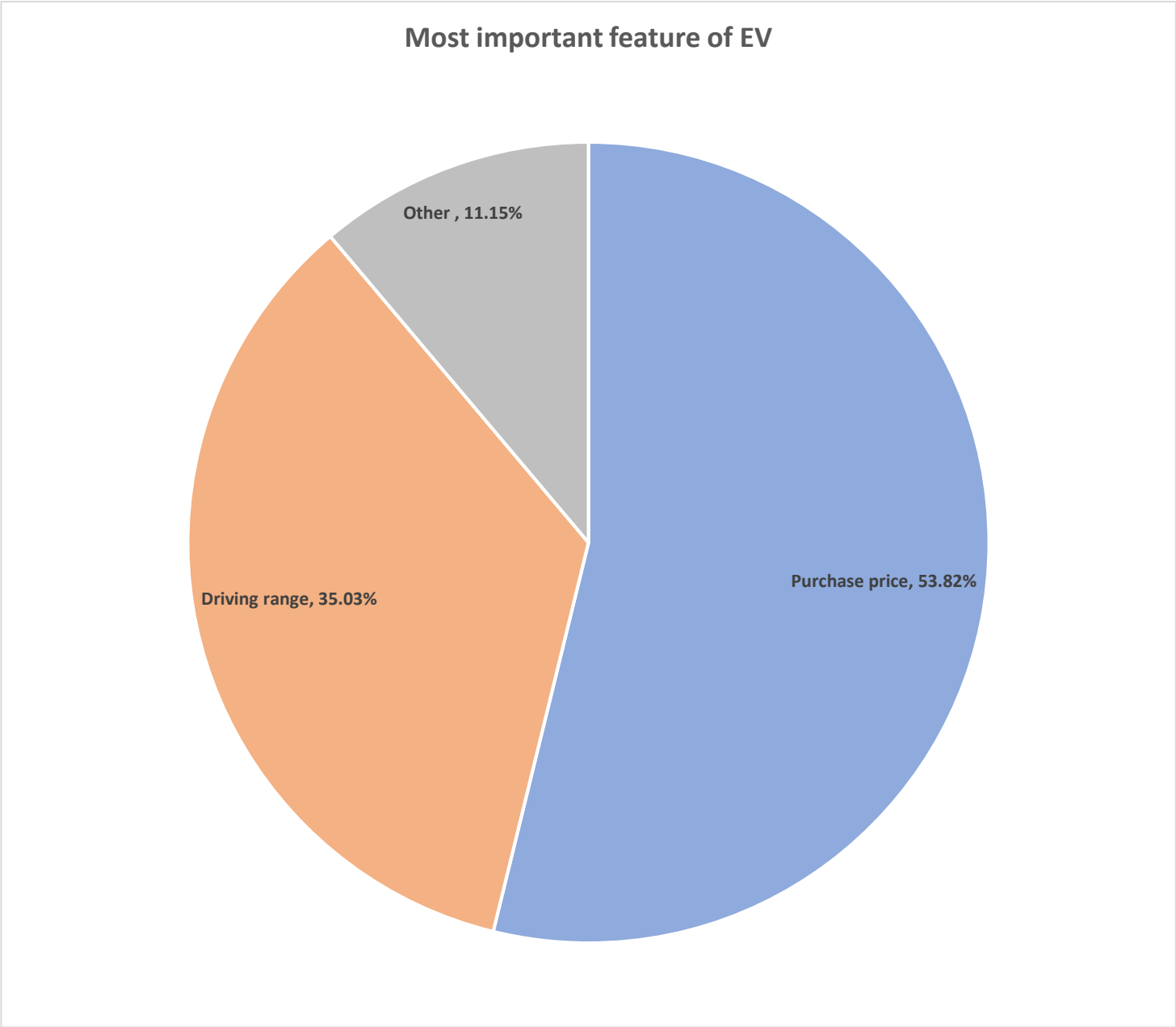
asked only of respondents who indicated they would be somewhat or very likely to purchase to purchase an EV if the price or driving distance is the same as a gas or diesel powered vehicle.

Which of the following would be most important to you in purchasing an electric vehicle?

QUESTION TOTAL: 314

DID NOT ANSWER: 0

OPTIONS	TOTAL	PERCENT
Purchase price	169	53.82%
Driving range	110	35.03%
Other	35	11.15%



Other (please specify)
Reliability, maintenance costs, life of car
How often I would have to replace the battery/cost of the battery
Both purchase price and driving range
Cost of electricity vs gas.
Cost per Kwh of electricity including the possibility of solar for recharging.
Pulling capabilities
cost of recharging
Reliability
over all operational cost
Availability of charging stations
maintenance
whether it is capable of being charged by a solar generator
Reliability
Hauling Capacity
Both price and range
Ease of recharging batteries
Ability to recharge
Accessibility to charging stations.
Maintenance costs
both purchase price, driving range and maintenance cost
Power/towing capacity
driving range and maintince
Increase in cost to my electric bill to keep vehicle charged.
consumer report, reliability, etc
total cost of ownership 20 yrs
the "get up and go" ability
Cost to operate/maintain
Power
Battery replacement price, horsepower
Availability of rapid charge stations
towing
charging stations
charging stations
power in snowy conditions
My husband is a mechanic - so fixing non-electric cars is something he can do... electric cars require special tools and trianing to fix, but if I knew someoene that could, I'd LOVE to have an electric car..

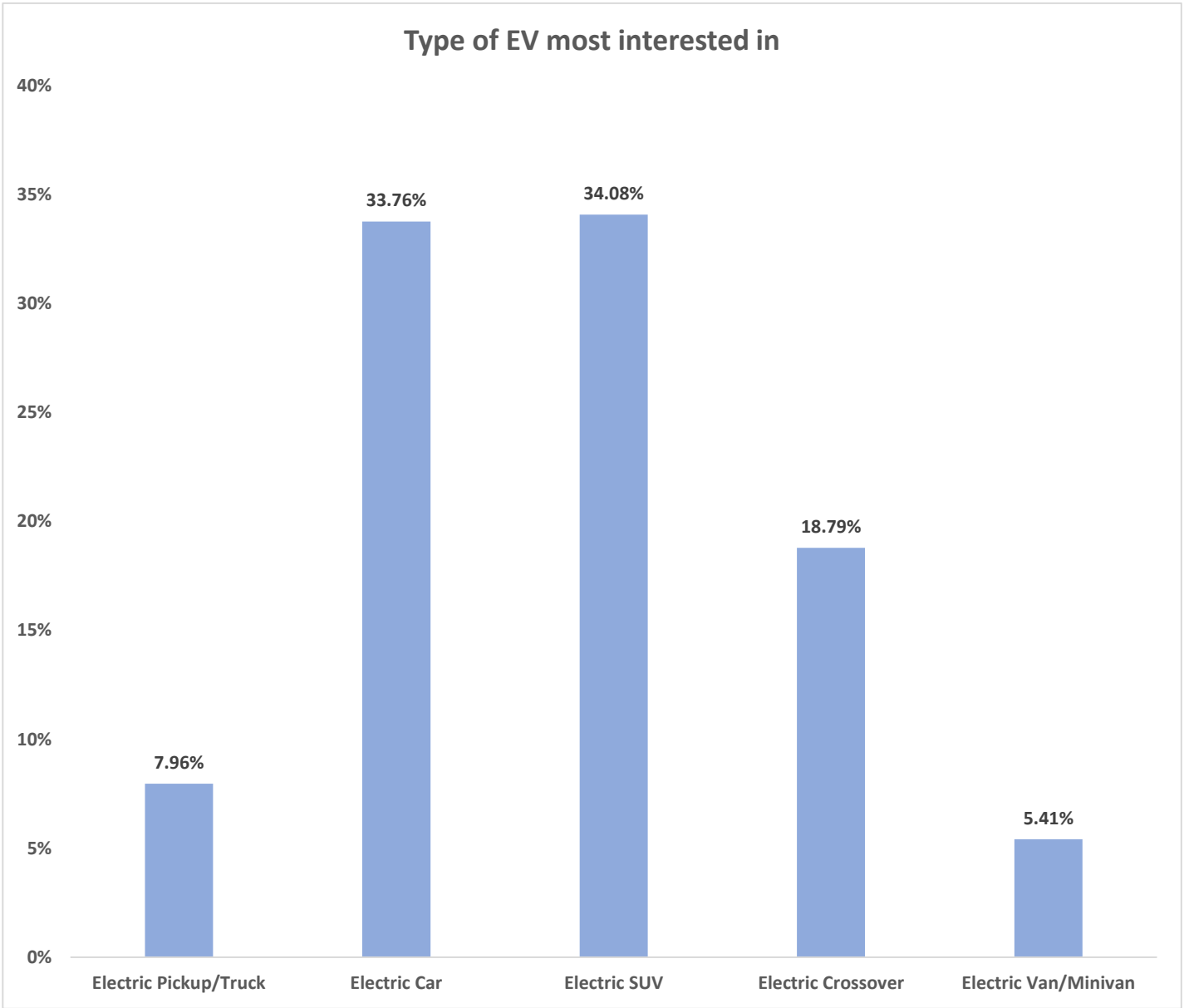
asked only of respondents who indicated they would be somewhat or very likely to purchase to purchase an EV if the price or driving distance is the same as a gas or diesel powered vehicle.

Which of the following would best describe the electric vehicle you would be most interested in purchasing?

QUESTION TOTAL: 314

DID NOT ANSWER: 0

OPTIONS	TOTAL	PERCENT
Electric Pickup/Truck	25	7.96%
Electric Car	106	33.76%
Electric SUV	107	34.08%
Electric Crossover	59	18.79%
Electric Van/Minivan	17	5.41%

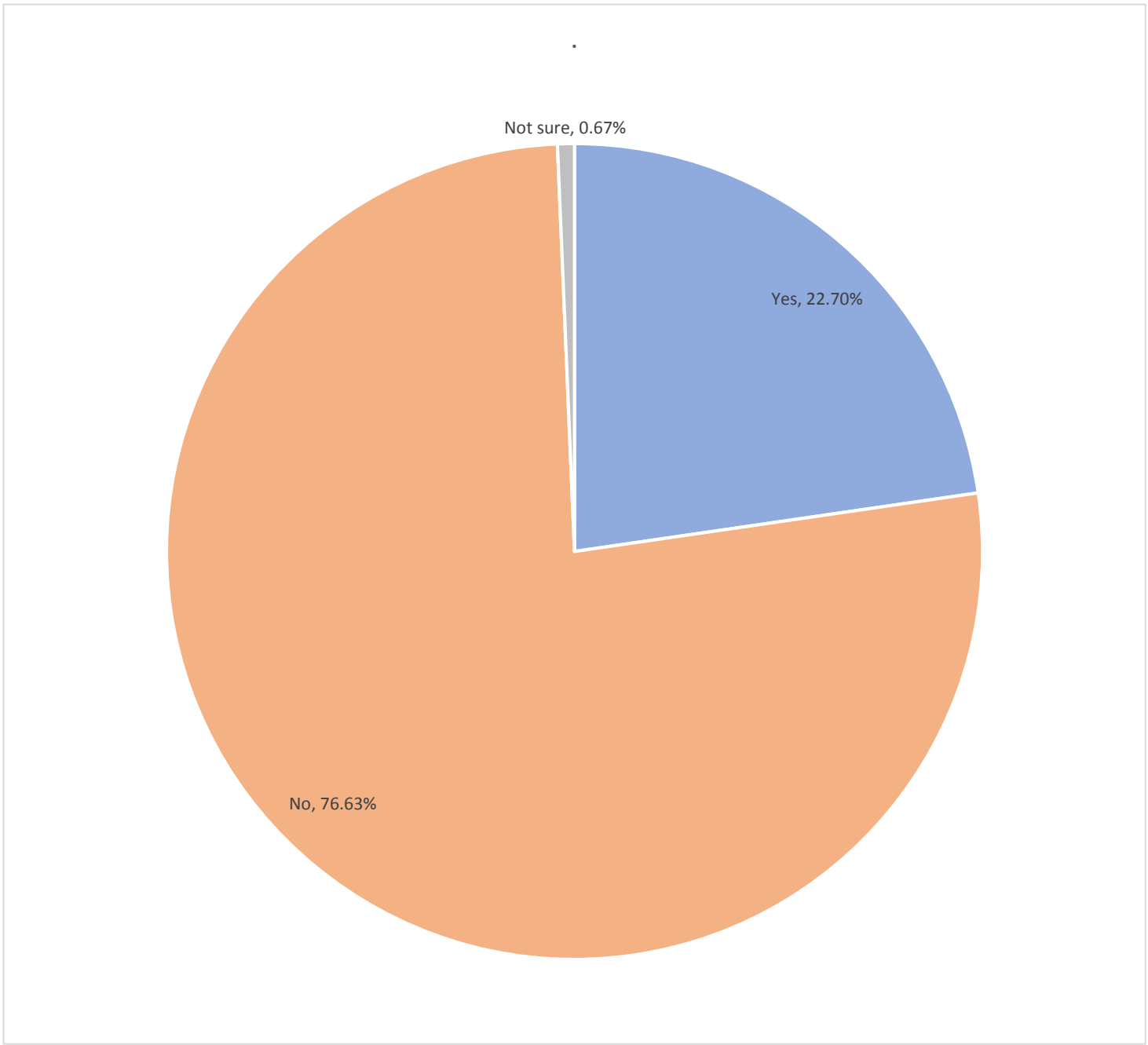


Do you own a voice-activated smart speaker like an Amazon Echo, Google Home or Apple HomePod device?

QUESTION TOTAL: 599

DID NOT ANSWER: 0

OPTIONS	TOTAL	PERCENT
Yes	136	22.70%
No	459	76.63%
Not sure	4	0.67%



asked only of respondents who indicated they would be somewhat or very unlikely to purchase an EV if the price or driving distance is the same as a gas or diesel powered vehicle.

Why would you be unlikely to purchase an electric vehicle even if the price and distance you could drive were comparable to a gas or diesel powered vehicle?
Power
Under powered
I do not trust the electric cars.
I don't like the way vehicles are becoming more and more computerized, as well as more and more cheaply built, with higher price tags. I would not be likely to purchase anything beyond a 2007 model.
Having never owned an electric vehicle myself I do not think I am knowledgable enough for maintenance & "what ifs."
I need a vehicle that can tow a 30ft travel trailer. If an electric vehicle could do what heavy duty deisel can do I would consider it.
I don't think I'll be moving to an electric vehicle any time in the next decade or two... I think about crisis times when there is no electricity... then I am stranded. I can stockpile fuel, and in emergency situations, fuel is not all that difficult to come by. But if the power grid goes down... well, there's no quick fix to that.
We still go on an occasional long trip and filling with gas is a lot easier than finding a plug and waiting for it to charge.
Lack of power
I'm uninterested in electric cars. Put more demand on electricity, the price of electricty increases. Which affects my house as well.
I am just a old fashioned guy. I like gas powered vehicles.
I'm not crazy about the electric cars
I like road trips, so charging an electric vehicle would be a challenge
You can't take them into the mountains
I haven’t researched them.
unsure of maintenance and resale value
I feel that for long-distance drives, the batteries are not reliable and the power of the car is limited. I also feel that disposal of batteries is worse on the environment than fossil fuels.
Delay in recharge and availability of recharge stations on road.trips.
I take long distance trips 2-3 times per year
I prefer to have a gas powered vehicle
I don't know enough about electric getr yet: i.e. where and how you recharge, cost of recharge, time to recharge, location of recharging, cost of batteries, etc..
No. Electric cars are worse for the enviroment than gas
I've heard battery replacement costs are high.
I AM NOT BUYING AN ELECTRIC VEHICLE FOR PERSONAL USE. i FEEL THAT AS FLEET CARS THEY MAY HAVE A PLACE BUT NOT AS PERSONAL CARS.
possibly more expensive to fix, don't know enough about electirc cars
Not really interested in off roading in a electric vehicle
As a female in her 70's I don't know how to operate one or do even minor maintenance.
Gas is the better solution for vehicles.
They are to small of my needs and drive alot for work and would prefer a gasoline car
Worry about where to re charge the vehicle!
Because I don't believe that statement.
Not enough access to charging stations. Or harder to find a charging station than a gas station
Couldn't take it on road trips. Charging stations aren't like gas stations yet.
We are too remote for me to be comfortable driving an electric car
I am not educated enough on them and if I can not fix minor issues I'm not sure I'd own one. I guess I'd have to research the maintenance and stuff that it involves in owning one.
Don't know anything about electric vehicles

Not interested
Don't know enough about an electric car. Concerns about it breaking down
I'm very comfortable in a traditional fossil fuel vehicle.
not my style, you should enjoy what you drive, electric vehicles have too many issues. more cons then pros of owning one.
My husband said the stations for an electric car would be super expensive
Won't tow camp trailer etc.
PEOPLE DON'T REALIZE (BECAUSE THEY DON'T DO THE RESEARCH) THAT MAKING THE BATTERIES FOR ELECTRIC VEHICLES ARE WORSE FOR THE ENVIRONMENT THAN USING GAS
too expensive
Because electric vehicles require power, which comes from gas
Do not like the thought of electric vehicle
Recharging
take longer to charge and the availability of charging stations is not very available and cost of making the cars is higher
I don't trust this type of vehicle yet. I also don't believe they help the environment because of the disposal of the batteries.
Confidence
We like to go camping and I would not be comfortable with the possibility of being stranded if the battery were to die in the electric vehicle and I wouldn't want to haul around a generator just for that scenario.
No place to charge when in the outback or remote towns
I drive a pickup to haul and tow. The wife's car maybe a consideration for more efficiency.
Don't like them!
their fooling people. their not green.
I've heard too many negative comments.
The safety of Lithium Batteries and the cost of Lithium.
I don't buy into the Politically Correct electric car crap
green is not really green
what if you don't have a place to plug it in and it dies on you.
would not
They're not well built or strong vehicles
Lack of charging stations on long trips.
Long distances between charging stations
Having to find a charging station would limit us as there are very few charging stations nationwide or even locally
change
old school
You can carry extra fuel. Current bushes don't work.:)
lack of knowledge of electric vehicle.
Concerns over life of battery/disposable/replacement
Tow a horse trailer
electric vehicles do not seem as well made/safe to drive in the event of a crash
electric vehicles make no sense at all in rural west!
Electric vehicles seem unsafe in a collision
I am not familiar with them and don't trust them yet.
They (and the infrastructure) need major improvement first.
places to plug in are limited
I don't trust them. My uncle has a hybrid and it doesn't get him very far before it needs recharged.
Too far between fueling stations & too long a fueling period
I pull a trailer a lot

Electric cars might work great for city folk, but when you need a truck to haul livestock and heavy loads, we need something with power that we can trust.
nuisance of waiting to re-charge
power/cant pull a power boat or travel trailer with and electric car
Environmental reasons. Electric vehicles are very inefficient. Getting electricity to a vehicle from the generator to the transmission system to the distribution system to local distribution the into the house is very inefficient compared to using traditional fuels. Also there is a very limited amount of lithium discovered at this point. The mining and processing of lithium is very un-green
Unless electric charging stations get more universal and faster, I wouldn't be able to go where I do now.
less access to power stations; unfamiliar
I spend time in the mountains, no charging ports in rural areas. Also, repair costs on an electric vehicle are more expensive than traditional gas powered vehicles.
Travel back to midwest looking for electric stations would cause stress
Recharge time when traveling
Unfamiliarity with electric automotive systems.
Just not interested
dont want the hassle of electric vehicle
Just not a fan
I prefer gas powered.
Uncertainty and lack of knowledge of technology
Low availability of charging stations. Lack of mechanics. Expense of parts. No inexpensive used ones.
I like to burn fossil fuels. I like the look and feel of the gas powered vehicles
it would be harder to go on road trips to charge it
Power for hauling, size for whole family, battery life and charging time, cost to rewire for plug, off roading
Travel a lot where could not charge vehicle
LACK OF CHARGING STATIONS
Just not interested

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
Overall size	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
	rank 1	COUNT	94	27	47	20	0	6	24	14	22	25	3	35	59	30	34	30	0
		COL %	15.7 %	17.2 %	14.9 %	15.7 %	0 %	8.7 %	22.6 %	15.1 %	15 %	18.4 %	7 %	13.8 %	17.1 %	14.6 %	17.1 %	15.8 %	0 %
	rank 2	COUNT	103	25	62	16	0	13	23	21	18	25	3	46	57	34	37	31	1
		COL %	17.2 %	15.9 %	19.7 %	12.6 %	0 %	18.8 %	21.7 %	22.6 %	12.2 %	18.4 %	7 %	18.1 %	16.5 %	16.5 %	18.6 %	16.3 %	25 %
	rank 3	COUNT	119	28	67	24	1	15	18	17	29	30	9	52	67	40	44	35	0
		COL %	19.9 %	17.8 %	21.3 %	18.9 %	20 %	21.7 %	17 %	18.3 %	19.7 %	22.1 %	20.9 %	20.5 %	19.4 %	19.4 %	22.1 %	18.4 %	0 %
	rank 4	COUNT	213	60	106	47	4	20	30	29	63	43	24	92	121	79	67	66	1
		COL %	35.6 %	38.2 %	33.7 %	37 %	80 %	29 %	28.3 %	31.2 %	42.9 %	31.6 %	55.8 %	36.2 %	35.1 %	38.3 %	33.7 %	34.7 %	25 %
	rank 5	COUNT	70	17	33	20	0	15	11	12	15	13	4	29	41	23	17	28	2
		COL %	11.7 %	10.8 %	10.5 %	15.7 %	0 %	21.7 %	10.4 %	12.9 %	10.2 %	9.6 %	9.3 %	11.4 %	11.9 %	11.2 %	8.5 %	14.7 %	50 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
Fuel economy	rank 1	COUNT	141	42	65	34	1	22	13	20	43	35	7	54	87	48	41	50	2
		COL %	23.5 %	26.8 %	20.6 %	26.8 %	20 %	31.9 %	12.3 %	21.5 %	29.3 %	25.7 %	16.3 %	21.3 %	25.2 %	23.3 %	20.6 %	26.3 %	50 %
	rank 2	COUNT	223	59	121	43	3	23	35	37	55	51	19	90	133	82	79	61	1
		COL %	37.2 %	37.6 %	38.4 %	33.9 %	60 %	33.3 %	33 %	39.8 %	37.4 %	37.5 %	44.2 %	35.4 %	38.6 %	39.8 %	39.7 %	32.1 %	25 %
	rank 3	COUNT	162	38	85	39	1	17	40	22	31	36	15	75	87	53	50	58	1
		COL %	27 %	24.2 %	27 %	30.7 %	20 %	24.6 %	37.7 %	23.7 %	21.1 %	26.5 %	34.9 %	29.5 %	25.2 %	25.7 %	25.1 %	30.5 %	25 %
	rank 4	COUNT	53	11	36	6	0	4	15	9	11	12	2	26	27	16	22	15	0
		COL %	8.8 %	7 %	11.4 %	4.7 %	0 %	5.8 %	14.2 %	9.7 %	7.5 %	8.8 %	4.7 %	10.2 %	7.8 %	7.8 %	11.1 %	7.9 %	0 %
	rank 5	COUNT	20	7	8	5	0	3	3	5	7	2	0	9	11	7	7	6	0
		COL %	3.3 %	4.5 %	2.5 %	3.9 %	0 %	4.3 %	2.8 %	5.4 %	4.8 %	1.5 %	0 %	3.5 %	3.2 %	3.4 %	3.5 %	3.2 %	0 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
Purchase price	rank 1	COUNT	315	78	176	61	4	35	62	50	72	68	24	135	180	114	109	91	1
		COL %	52.6 %	49.7 %	55.9 %	48 %	80 %	50.7 %	58.5 %	53.8 %	49 %	50 %	55.8 %	53.1 %	52.2 %	55.3 %	54.8 %	47.9 %	25 %
	rank 2	COUNT	145	39	63	43	1	16	25	15	40	37	11	63	82	42	49	54	0
		COL %	24.2 %	24.8 %	20 %	33.9 %	20 %	23.2 %	23.6 %	16.1 %	27.2 %	27.2 %	25.6 %	24.8 %	23.8 %	20.4 %	24.6 %	28.4 %	0 %
	rank 3	COUNT	83	22	47	14	0	11	10	19	22	17	4	31	52	31	23	27	2
		COL %	13.9 %	14 %	14.9 %	11 %	0 %	15.9 %	9.4 %	20.4 %	15 %	12.5 %	9.3 %	12.2 %	15.1 %	15 %	11.6 %	14.2 %	50 %
	rank 4	COUNT	41	13	22	6	0	6	5	7	10	9	4	19	22	14	13	14	0
		COL %	6.8 %	8.3 %	7 %	4.7 %	0 %	8.7 %	4.7 %	7.5 %	6.8 %	6.6 %	9.3 %	7.5 %	6.4 %	6.8 %	6.5 %	7.4 %	0 %
	rank 5	COUNT	15	5	7	3	0	1	4	2	3	5	0	6	9	5	5	4	1
		COL %	2.5 %	3.2 %	2.2 %	2.4 %	0 %	1.4 %	3.8 %	2.2 %	2 %	3.7 %	0 %	2.4 %	2.6 %	2.4 %	2.5 %	2.1 %	25 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
Maintenance costs	rank 1	COUNT	31	3	21	7	0	3	5	6	6	4	7	20	11	8	10	12	1
		COL %	5.2 %	1.9 %	6.7 %	5.5 %	0 %	4.3 %	4.7 %	6.5 %	4.1 %	2.9 %	16.3 %	7.9 %	3.2 %	3.9 %	5 %	6.3 %	25 %
	rank 2	COUNT	100	28	52	20	1	12	19	16	28	15	9	38	62	39	27	33	1
		COL %	16.7 %	17.8 %	16.5 %	15.7 %	20 %	17.4 %	17.9 %	17.2 %	19 %	11 %	20.9 %	15 %	18 %	18.9 %	13.6 %	17.4 %	25 %
	rank 3	COUNT	194	55	97	42	3	18	30	27	58	43	15	79	115	67	69	58	0
		COL %	32.4 %	35 %	30.8 %	33.1 %	60 %	26.1 %	28.3 %	29 %	39.5 %	31.6 %	34.9 %	31.1 %	33.3 %	32.5 %	34.7 %	30.5 %	0 %
	rank 4	COUNT	219	51	117	51	1	31	41	31	45	60	10	85	134	76	72	70	1
		COL %	36.6 %	32.5 %	37.1 %	40.2 %	20 %	44.9 %	38.7 %	33.3 %	30.6 %	44.1 %	23.3 %	33.5 %	38.8 %	36.9 %	36.2 %	36.8 %	25 %
	rank 5	COUNT	55	20	28	7	0	5	11	13	10	14	2	32	23	16	21	17	1
		COL %	9.2 %	12.7 %	8.9 %	5.5 %	0 %	7.2 %	10.4 %	14 %	6.8 %	10.3 %	4.7 %	12.6 %	6.7 %	7.8 %	10.6 %	8.9 %	25 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
Off-road capability	rank 1	COUNT	18	7	6	5	0	3	2	3	4	4	2	10	8	6	5	7	0
		COL %	3 %	4.5 %	1.9 %	3.9 %	0 %	4.3 %	1.9 %	3.2 %	2.7 %	2.9 %	4.7 %	3.9 %	2.3 %	2.9 %	2.5 %	3.7 %	0 %
	rank 2	COUNT	28	6	17	5	0	5	4	4	6	8	1	17	11	9	7	11	1
		COL %	4.7 %	3.8 %	5.4 %	3.9 %	0 %	7.2 %	3.8 %	4.3 %	4.1 %	5.9 %	2.3 %	6.7 %	3.2 %	4.4 %	3.5 %	5.8 %	25 %
	rank 3	COUNT	41	14	19	8	0	8	8	8	7	10	0	17	24	15	13	12	1
		COL %	6.8 %	8.9 %	6 %	6.3 %	0 %	11.6 %	7.5 %	8.6 %	4.8 %	7.4 %	0 %	6.7 %	7 %	7.3 %	6.5 %	6.3 %	25 %
	rank 4	COUNT	73	22	34	17	0	8	15	17	18	12	3	32	41	21	25	25	2
		COL %	12.2 %	14 %	10.8 %	13.4 %	0 %	11.6 %	14.2 %	18.3 %	12.2 %	8.8 %	7 %	12.6 %	11.9 %	10.2 %	12.6 %	13.2 %	50 %
	rank 5	COUNT	439	108	239	92	5	45	77	61	112	102	37	178	261	155	149	135	0
		COL %	73.3 %	68.8 %	75.9 %	72.4 %	100 %	65.2 %	72.6 %	65.6 %	76.2 %	75 %	86 %	70.1 %	75.7 %	75.2 %	74.9 %	71.1 %	0 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
How many total miles do you typically drive per day (including any daily commute)?	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
	0-10	COUNT	219	58	114	47	2	24	29	30	57	56	21	79	140	76	68	74	1
		COL %	36.6 %	36.9 %	36.2 %	37 %	40 %	34.8 %	27.4 %	32.3 %	38.8 %	41.2 %	48.8 %	31.1 %	40.6 %	36.9 %	34.2 %	38.9 %	25 %
	11-20	COUNT	192	47	102	43	1	23	32	23	51	47	15	83	109	71	63	57	1
		COL %	32.1 %	29.9 %	32.4 %	33.9 %	20 %	33.3 %	30.2 %	24.7 %	34.7 %	34.6 %	34.9 %	32.7 %	31.6 %	34.5 %	31.7 %	30 %	25 %
	21-30	COUNT	83	23	48	12	2	7	19	20	18	11	6	35	48	27	31	25	0
		COL %	13.9 %	14.6 %	15.2 %	9.4 %	40 %	10.1 %	17.9 %	21.5 %	12.2 %	8.1 %	14 %	13.8 %	13.9 %	13.1 %	15.6 %	13.2 %	0 %
	31-40	COUNT	47	14	27	6	0	5	11	7	9	15	0	30	17	10	13	22	2
		COL %	7.8 %	8.9 %	8.6 %	4.7 %	0 %	7.2 %	10.4 %	7.5 %	6.1 %	11 %	0 %	11.8 %	4.9 %	4.9 %	6.5 %	11.6 %	50 %
	41-50	COUNT	24	10	11	3	0	3	8	4	6	2	1	12	12	6	11	7	0
		COL %	4 %	6.4 %	3.5 %	2.4 %	0 %	4.3 %	7.5 %	4.3 %	4.1 %	1.5 %	2.3 %	4.7 %	3.5 %	2.9 %	5.5 %	3.7 %	0 %
	More than 50	COUNT	34	5	13	16	0	7	7	9	6	5	0	15	19	16	13	5	0
		COL %	5.7 %	3.2 %	4.1 %	12.6 %	0 %	10.1 %	6.6 %	9.7 %	4.1 %	3.7 %	0 %	5.9 %	5.5 %	7.8 %	6.5 %	2.6 %	0 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
Overall, considering all driving you do, how often would you say you drive more than 50 miles in a day?	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
	Daily	COUNT	34	5	13	16	0	9	7	9	6	3	0	15	19	16	14	4	0
		COL %	5.7 %	3.2 %	4.1 %	12.6 %	0 %	13 %	6.6 %	9.7 %	4.1 %	2.2 %	0 %	5.9 %	5.5 %	7.8 %	7 %	2.1 %	0 %
	Weekly	COUNT	166	71	64	31	1	18	31	31	38	38	9	77	89	52	54	60	0
		COL %	27.7 %	45.2 %	20.3 %	24.4 %	20 %	26.1 %	29.2 %	33.3 %	25.9 %	27.9 %	20.9 %	30.3 %	25.8 %	25.2 %	27.1 %	31.6 %	0 %
	Monthly	COUNT	229	53	124	52	2	26	40	27	62	53	19	94	135	78	83	66	2
		COL %	38.2 %	33.8 %	39.4 %	40.9 %	40 %	37.7 %	37.7 %	29 %	42.2 %	39 %	44.2 %	37 %	39.1 %	37.9 %	41.7 %	34.7 %	50 %
	A few times per year	COUNT	157	27	104	26	1	15	27	25	37	39	13	62	95	58	43	54	2
		COL %	26.2 %	17.2 %	33 %	20.5 %	20 %	21.7 %	25.5 %	26.9 %	25.2 %	28.7 %	30.2 %	24.4 %	27.5 %	28.2 %	21.6 %	28.4 %	50 %
	Never	COUNT	13	1	10	2	1	1	1	1	4	3	2	6	7	2	5	6	0
		COL %	2.2 %	0.6 %	3.2 %	1.6 %	20 %	1.4 %	0.9 %	1.1 %	2.7 %	2.2 %	4.7 %	2.4 %	2 %	1 %	2.5 %	3.2 %	0 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
Does your household own more or fewer vehicles than you did 5 years ago?	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
	More vehicles	COUNT	111	33	51	27	0	22	28	25	19	14	3	41	70	53	34	24	0
		COL %	18.5 %	21 %	16.2 %	21.3 %	0 %	31.9 %	26.4 %	26.9 %	12.9 %	10.3 %	7 %	16.1 %	20.3 %	25.7 %	17.1 %	12.6 %	0 %
	Same number of vehicles	COUNT	407	101	230	76	5	42	69	56	99	101	35	183	224	131	137	135	4
		COL %	67.9 %	64.3 %	73 %	59.8 %	100 %	60.9 %	65.1 %	60.2 %	67.3 %	74.3 %	81.4 %	72 %	64.9 %	63.6 %	68.8 %	71.1 %	100 %
	Fewer vehicles	COUNT	81	23	34	24	0	5	9	12	29	21	5	30	51	22	28	31	0
		COL %	13.5 %	14.6 %	10.8 %	18.9 %	0 %	7.2 %	8.5 %	12.9 %	19.7 %	15.4 %	11.6 %	11.8 %	14.8 %	10.7 %	14.1 %	16.3 %	0 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
How long have you owned your current vehicle (the one you drive most often)?	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
	Less than one year	COUNT	79	23	39	17	0	16	16	13	18	12	4	26	53	34	23	21	1
		COL %	13.2 %	14.6 %	12.4 %	13.4 %	0 %	23.2 %	15.1 %	14 %	12.2 %	8.8 %	9.3 %	10.2 %	15.4 %	16.5 %	11.6 %	11.1 %	25 %
	1-2 years	COUNT	134	42	69	23	3	22	27	16	29	28	9	54	80	54	45	35	0
		COL %	22.4 %	26.8 %	21.9 %	18.1 %	60 %	31.9 %	25.5 %	17.2 %	19.7 %	20.6 %	20.9 %	21.3 %	23.2 %	26.2 %	22.6 %	18.4 %	0 %
	3-5 years	COUNT	172	42	82	48	1	19	31	29	42	37	13	72	100	60	59	53	0
		COL %	28.7 %	26.8 %	26 %	37.8 %	20 %	27.5 %	29.2 %	31.2 %	28.6 %	27.2 %	30.2 %	28.3 %	29 %	29.1 %	29.6 %	27.9 %	0 %
	6-10 years	COUNT	93	17	58	18	1	6	16	18	23	22	7	43	50	26	35	32	0
		COL %	15.5 %	10.8 %	18.4 %	14.2 %	20 %	8.7 %	15.1 %	19.4 %	15.6 %	16.2 %	16.3 %	16.9 %	14.5 %	12.6 %	17.6 %	16.8 %	0 %
	More than 10 years	COUNT	121	33	67	21	0	6	16	17	35	37	10	59	62	32	37	49	3
		COL %	20.2 %	21 %	21.3 %	16.5 %	0 %	8.7 %	15.1 %	18.3 %	23.8 %	27.2 %	23.3 %	23.2 %	18 %	15.5 %	18.6 %	25.8 %	75 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
Which of the following would best describe your current vehicle (the one you drive most often)?	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
	Pickup/Truck	COUNT	94	30	44	20	0	8	18	17	20	25	6	63	31	24	32	38	0
		COL %	15.7 %	19.1 %	14 %	15.7 %	0 %	11.6 %	17 %	18.3 %	13.6 %	18.4 %	14 %	24.8 %	9 %	11.7 %	16.1 %	20 %	0 %
	Car	COUNT	235	61	126	48	3	32	38	31	58	57	16	87	148	79	77	75	4
		COL %	39.2 %	38.9 %	40 %	37.8 %	60 %	46.4 %	35.8 %	33.3 %	39.5 %	41.9 %	37.2 %	34.3 %	42.9 %	38.3 %	38.7 %	39.5 %	100 %
	SUV	COUNT	155	43	79	33	1	9	29	19	43	39	15	57	98	54	55	46	0
		COL %	25.9 %	27.4 %	25.1 %	26 %	20 %	13 %	27.4 %	20.4 %	29.3 %	28.7 %	34.9 %	22.4 %	28.4 %	26.2 %	27.6 %	24.2 %	0 %
	Crossover	COUNT	56	7	34	15	1	12	5	11	15	8	4	23	33	22	15	19	0
		COL %	9.3 %	4.5 %	10.8 %	11.8 %	20 %	17.4 %	4.7 %	11.8 %	10.2 %	5.9 %	9.3 %	9.1 %	9.6 %	10.7 %	7.5 %	10 %	0 %
	Van or Minivan	COUNT	40	13	20	7	0	6	10	10	8	4	2	13	27	20	14	6	0
		COL %	6.7 %	8.3 %	6.3 %	5.5 %	0 %	8.7 %	9.4 %	10.8 %	5.4 %	2.9 %	4.7 %	5.1 %	7.8 %	9.7 %	7 %	3.2 %	0 %
	Other (please specify)	COUNT	19	3	12	4	0	2	6	5	3	3	0	11	8	7	6	6	0
		COL %	3.2 %	1.9 %	3.8 %	3.1 %	0 %	2.9 %	5.7 %	5.4 %	2 %	2.2 %	0 %	4.3 %	2.3 %	3.4 %	3 %	3.2 %	0 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
Which of the following would best describe how your current vehicle (the one you drive most often) is powered ?	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
	Gas powered	COUNT	547	142	289	116	4	65	102	82	133	121	40	223	324	190	184	170	3
		COL %	91.3 %	90.4 %	91.7 %	91.3 %	80 %	94.2 %	96.2 %	88.2 %	90.5 %	89 %	93 %	87.8 %	93.9 %	92.2 %	92.5 %	89.5 %	75 %
	Diesel powered	COUNT	21	7	9	5	0	0	2	5	6	7	1	15	6	5	8	8	0
		COL %	3.5 %	4.5 %	2.9 %	3.9 %	0 %	0 %	1.9 %	5.4 %	4.1 %	5.1 %	2.3 %	5.9 %	1.7 %	2.4 %	4 %	4.2 %	0 %
	Electric	COUNT	6	2	4	0	0	2	0	0	2	2	0	5	1	2	0	4	0
		COL %	1 %	1.3 %	1.3 %	0 %	0 %	2.9 %	0 %	0 %	1.4 %	1.5 %	0 %	2 %	0.3 %	1 %	0 %	2.1 %	0 %
	Hybrid	COUNT	25	6	13	6	1	2	2	6	6	6	2	11	14	9	7	8	1
		COL %	4.2 %	3.8 %	4.1 %	4.7 %	20 %	2.9 %	1.9 %	6.5 %	4.1 %	4.4 %	4.7 %	4.3 %	4.1 %	4.4 %	3.5 %	4.2 %	25 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
How likely are you to buy a vehicle within the next year?	Very likely	COUNT	49	10	30	9	0	4	11	7	19	5	3	20	29	16	16	17	0
		COL %	8.2 %	6.4 %	9.5 %	7.1 %	0 %	5.8 %	10.4 %	7.5 %	12.9 %	3.7 %	7 %	7.9 %	8.4 %	7.8 %	8 %	8.9 %	0 %
	Somewhat likely	COUNT	111	31	57	23	1	16	27	18	23	23	3	44	67	40	40	31	0
		COL %	18.5 %	19.7 %	18.1 %	18.1 %	20 %	23.2 %	25.5 %	19.4 %	15.6 %	16.9 %	7 %	17.3 %	19.4 %	19.4 %	20.1 %	16.3 %	0 %
	Not very likely	COUNT	193	53	100	40	2	23	29	33	44	47	15	89	104	63	62	65	3
		COL %	32.2 %	33.8 %	31.7 %	31.5 %	40 %	33.3 %	27.4 %	35.5 %	29.9 %	34.6 %	34.9 %	35 %	30.1 %	30.6 %	31.2 %	34.2 %	75 %
	Not likely at all	COUNT	246	63	128	55	2	26	39	35	61	61	22	101	145	87	81	77	1
		COL %	41.1 %	40.1 %	40.6 %	43.3 %	40 %	37.7 %	36.8 %	37.6 %	41.5 %	44.9 %	51.2 %	39.8 %	42 %	42.2 %	40.7 %	40.5 %	25 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
How likely are you to buy a vehicle within the next 5 years?	Base		439	116	228	95	4	49	68	68	105	108	37	190	249	150	143	142	4
			--	26.42%	51.94%	21.64%	0.91%	11.16%	15.49%	15.49%	23.92%	24.60%	8.43%	43.28%	56.72%	34.17%	32.57%	32.35%	0.91%
	Very likely	COUNT	69	14	37	18	0	9	18	9	16	15	2	25	44	21	27	21	0
		COL %	15.7 %	12.1 %	16.2 %	18.9 %	0 %	18.4 %	26.5 %	13.2 %	15.2 %	13.9 %	5.4 %	13.2 %	17.7 %	14 %	18.9 %	14.8 %	0 %
	Somewhat likely	COUNT	187	50	93	44	2	22	25	40	45	41	12	93	94	63	59	64	1
		COL %	42.6 %	43.1 %	40.8 %	46.3 %	50 %	44.9 %	36.8 %	58.8 %	42.9 %	38 %	32.4 %	48.9 %	37.8 %	42 %	41.3 %	45.1 %	25 %
	Not very likely	COUNT	117	33	61	23	1	12	16	11	26	35	16	51	66	45	35	34	3
		COL %	26.7 %	28.4 %	26.8 %	24.2 %	25 %	24.5 %	23.5 %	16.2 %	24.8 %	32.4 %	43.2 %	26.8 %	26.5 %	30 %	24.5 %	23.9 %	75 %
	Not likely at all	COUNT	66	19	37	10	1	6	9	8	18	17	7	21	45	21	22	23	0
		COL %	15 %	16.4 %	16.2 %	10.5 %	25 %	12.2 %	13.2 %	11.8 %	17.1 %	15.7 %	18.9 %	11.1 %	18.1 %	14 %	15.4 %	16.2 %	0 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
Do you anticipate the new vehicle you buy will be smaller, larger or the same size as the current vehicle you drive most often?	Base		416	105	217	94	3	51	81	74	103	84	20	182	234	140	142	133	1
			--	25.24%	52.16%	22.60%	0.72%	12.26%	19.47%	17.79%	24.76%	20.19%	4.81%	43.75%	56.25%	33.65%	34.13%	31.97%	0.24%
	Larger	COUNT	80	26	34	20	0	20	24	12	12	10	2	26	54	31	29	20	0
		COL %	19.2 %	24.8 %	15.7 %	21.3 %	0 %	39.2 %	29.6 %	16.2 %	11.7 %	11.9 %	10 %	14.3 %	23.1 %	22.1 %	20.4 %	15 %	0 %
	Smaller	COUNT	61	17	35	9	1	4	15	7	17	15	2	30	31	24	20	17	0
		COL %	14.7 %	16.2 %	16.1 %	9.6 %	33.3 %	7.8 %	18.5 %	9.5 %	16.5 %	17.9 %	10 %	16.5 %	13.2 %	17.1 %	14.1 %	12.8 %	0 %
	Same size	COUNT	232	49	125	58	1	22	37	45	61	51	15	105	127	70	81	80	1
		COL %	55.8 %	46.7 %	57.6 %	61.7 %	33.3 %	43.1 %	45.7 %	60.8 %	59.2 %	60.7 %	75 %	57.7 %	54.3 %	50 %	57 %	60.2 %	100 %
	Not sure	COUNT	43	13	23	7	1	5	5	10	13	8	1	21	22	15	12	16	0
		COL %	10.3 %	12.4 %	10.6 %	7.4 %	33.3 %	9.8 %	6.2 %	13.5 %	12.6 %	9.5 %	5 %	11.5 %	9.4 %	10.7 %	8.5 %	12 %	0 %

for an electric and a traditional gas or diesel powered vehicle, how likely would you be to purchase the electric [powered version of the			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
	Base		416	105	217	94	3	51	81	74	103	84	20	182	234	140	142	133	1
			--	25.24%	52.16%	22.60%	0.72%	12.26%	19.47%	17.79%	24.76%	20.19%	4.81%	43.75%	56.25%	33.65%	34.13%	31.97%	0.24%
	Very likely	COUNT	135	19	92	24	2	22	28	19	38	25	1	55	80	52	40	43	0
		COL %	32.5 %	18.1 %	42.4 %	25.5 %	66.7 %	43.1 %	34.6 %	25.7 %	36.9 %	29.8 %	5 %	30.2 %	34.2 %	37.1 %	28.2 %	32.3 %	0 %
	Somewhat likely	COUNT	133	42	62	29	1	12	31	33	28	25	3	58	75	45	56	32	0
		COL %	32 %	40 %	28.6 %	30.9 %	33.3 %	23.5 %	38.3 %	44.6 %	27.2 %	29.8 %	15 %	31.9 %	32.1 %	32.1 %	39.4 %	24.1 %	0 %
	Not very likely	COUNT	101	29	45	27	0	12	16	13	28	22	10	41	60	27	29	44	1
		COL %	24.3 %	27.6 %	20.7 %	28.7 %	0 %	23.5 %	19.8 %	17.6 %	27.2 %	26.2 %	50 %	22.5 %	25.6 %	19.3 %	20.4 %	33.1 %	100 %
	Not likely at all	COUNT	47	15	18	14	0	5	6	9	9	12	6	28	19	16	17	14	0
		COL %	11.3 %	14.3 %	8.3 %	14.9 %	0 %	9.8 %	7.4 %	12.2 %	8.7 %	14.3 %	30 %	15.4 %	8.1 %	11.4 %	12 %	10.5 %	0 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
the same for an electric and a traditional gas or diesel powered vehicle, how likely would you be to purchase the electric powered	Base		416	105	217	94	3	51	81	74	103	84	20	182	234	140	142	133	1
			--	25.24%	52.16%	22.60%	0.72%	12.26%	19.47%	17.79%	24.76%	20.19%	4.81%	43.75%	56.25%	33.65%	34.13%	31.97%	0.24%
	Very likely	COUNT	170	31	107	32	2	26	35	28	43	32	4	71	99	66	52	52	0
		COL %	40.9 %	29.5 %	49.3 %	34 %	66.7 %	51 %	43.2 %	37.8 %	41.7 %	38.1 %	20 %	39 %	42.3 %	47.1 %	36.6 %	39.1 %	0 %
	Somewhat likely	COUNT	135	38	64	33	0	15	26	30	32	29	3	57	78	38	55	41	1
		COL %	32.5 %	36.2 %	29.5 %	35.1 %	0 %	29.4 %	32.1 %	40.5 %	31.1 %	34.5 %	15 %	31.3 %	33.3 %	27.1 %	38.7 %	30.8 %	100 %
	Not very likely	COUNT	77	27	31	19	1	6	17	9	22	16	6	38	39	27	20	30	0
		COL %	18.5 %	25.7 %	14.3 %	20.2 %	33.3 %	11.8 %	21 %	12.2 %	21.4 %	19 %	30 %	20.9 %	16.7 %	19.3 %	14.1 %	22.6 %	0 %
	Not likely at all	COUNT	34	9	15	10	0	4	3	7	6	7	7	16	18	9	15	10	0
		COL %	8.2 %	8.6 %	6.9 %	10.6 %	0 %	7.8 %	3.7 %	9.5 %	5.8 %	8.3 %	35 %	8.8 %	7.7 %	6.4 %	10.6 %	7.5 %	0 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
Which of the following would be most important to you in purchasing an electric vehicle?	Base		314	72	174	68	3	41	65	58	78	61	8	131	183	107	110	96	1
			--	22.93%	55.41%	21.66%	0.96%	13.06%	20.70%	18.47%	24.84%	19.43%	2.55%	41.72%	58.28%	34.08%	35.03%	30.57%	0.32%
	Purchase price	COUNT	169	40	97	32	2	25	37	37	38	27	3	62	107	67	61	41	0
		COL %	53.8 %	55.6 %	55.7 %	47.1 %	66.7 %	61 %	56.9 %	63.8 %	48.7 %	44.3 %	37.5 %	47.3 %	58.5 %	62.6 %	55.5 %	42.7 %	0 %
	Driving range	COUNT	110	24	56	30	0	13	22	15	31	26	3	53	57	30	40	39	1
		COL %	35 %	33.3 %	32.2 %	44.1 %	0 %	31.7 %	33.8 %	25.9 %	39.7 %	42.6 %	37.5 %	40.5 %	31.1 %	28 %	36.4 %	40.6 %	100 %
	Other (please specify)	COUNT	35	8	21	6	1	3	6	6	9	8	2	16	19	10	9	16	0
		COL %	11.1 %	11.1 %	12.1 %	8.8 %	33.3 %	7.3 %	9.2 %	10.3 %	11.5 %	13.1 %	25 %	12.2 %	10.4 %	9.3 %	8.2 %	16.7 %	0 %

			Total	REGION_ROLLUP			AGE_ROLLUP							Q7_GENDER		Q4_LENGTH_OF_SERVICE			
				Canyon West	Capital	South East	less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than 10 years	10-25 years	More than 25 years	Don't know
Amazon Echo, Google Home or Apple HomePod device?	Base		599	157	315	127	5	69	106	93	147	136	43	254	345	206	199	190	4
			--	26.21%	52.59%	21.20%	0.83%	11.52%	17.70%	15.53%	24.54%	22.70%	7.18%	42.40%	57.60%	34.39%	33.22%	31.72%	0.67%
	Yes	COUNT	136	35	76	25	1	17	31	27	34	21	5	60	76	49	49	37	1
		COL %	22.7 %	22.3 %	24.1 %	19.7 %	20 %	24.6 %	29.2 %	29 %	23.1 %	15.4 %	11.6 %	23.6 %	22 %	23.8 %	24.6 %	19.5 %	25 %
	No	COUNT	459	121	237	101	4	51	75	66	112	113	38	193	266	155	150	151	3
		COL %	76.6 %	77.1 %	75.2 %	79.5 %	80 %	73.9 %	70.8 %	71 %	76.2 %	83.1 %	88.4 %	76 %	77.1 %	75.2 %	75.4 %	79.5 %	75 %
	Not sure	COUNT	4	1	2	1	0	1	0	0	1	2	0	1	3	2	0	2	0
		COL %	0.7 %	0.6 %	0.6 %	0.8 %	0 %	1.4 %	0 %	0 %	0.7 %	1.5 %	0 %	0.4 %	0.9 %	1 %	0 %	1.1 %	0 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
Overall size	rank 1	COUNT	94	2	9	23	39	21	79	6
		COL %	15.7 %	100 %	22.5 %	14.7 %	15.1 %	14.7 %	16.9 %	8.7 %
	rank 2	COUNT	103	0	3	23	49	28	81	10
		COL %	17.2 %	0 %	7.5 %	14.7 %	19 %	19.6 %	17.3 %	14.5 %
	rank 3	COUNT	119	0	7	33	54	25	93	10
		COL %	19.9 %	0 %	17.5 %	21.2 %	20.9 %	17.5 %	19.9 %	14.5 %
	rank 4	COUNT	213	0	17	58	83	55	159	34
		COL %	35.6 %	0 %	42.5 %	37.2 %	32.2 %	38.5 %	34 %	49.3 %
	rank 5	COUNT	70	0	4	19	33	14	56	9
		COL %	11.7 %	0 %	10 %	12.2 %	12.8 %	9.8 %	12 %	13 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
Fuel economy	rank 1	COUNT	141	0	4	39	63	35	104	19
		COL %	23.5 %	0 %	10 %	25 %	24.4 %	24.5 %	22.2 %	27.5 %
	rank 2	COUNT	223	0	23	57	91	52	174	29
		COL %	37.2 %	0 %	57.5 %	36.5 %	35.3 %	36.4 %	37.2 %	42 %
	rank 3	COUNT	162	2	9	38	75	38	129	14
		COL %	27 %	100 %	22.5 %	24.4 %	29.1 %	26.6 %	27.6 %	20.3 %
	rank 4	COUNT	53	0	2	15	20	16	44	5
		COL %	8.8 %	0 %	5 %	9.6 %	7.8 %	11.2 %	9.4 %	7.2 %
	rank 5	COUNT	20	0	2	7	9	2	17	2
		COL %	3.3 %	0 %	5 %	4.5 %	3.5 %	1.4 %	3.6 %	2.9 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
Purchase price	rank 1	COUNT	315	0	25	74	137	79	244	39
		COL %	52.6 %	0 %	62.5 %	47.4 %	53.1 %	55.2 %	52.1 %	56.5 %
	rank 2	COUNT	145	1	7	44	63	30	115	11
		COL %	24.2 %	50 %	17.5 %	28.2 %	24.4 %	21 %	24.6 %	15.9 %
	rank 3	COUNT	83	0	4	22	35	22	64	11
		COL %	13.9 %	0 %	10 %	14.1 %	13.6 %	15.4 %	13.7 %	15.9 %
	rank 4	COUNT	41	0	4	11	16	10	34	4
		COL %	6.8 %	0 %	10 %	7.1 %	6.2 %	7 %	7.3 %	5.8 %
	rank 5	COUNT	15	1	0	5	7	2	11	4
		COL %	2.5 %	50 %	0 %	3.2 %	2.7 %	1.4 %	2.4 %	5.8 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
Maintenance costs	rank 1	COUNT	31	0	2	14	12	3	28	1
		COL %	5.2 %	0 %	5 %	9 %	4.7 %	2.1 %	6 %	1.4 %
	rank 2	COUNT	100	0	5	24	45	26	76	15
		COL %	16.7 %	0 %	12.5 %	15.4 %	17.4 %	18.2 %	16.2 %	21.7 %
	rank 3	COUNT	194	0	14	49	78	53	151	28
		COL %	32.4 %	0 %	35 %	31.4 %	30.2 %	37.1 %	32.3 %	40.6 %
	rank 4	COUNT	219	2	14	57	98	48	167	20
		COL %	36.6 %	100 %	35 %	36.5 %	38 %	33.6 %	35.7 %	29 %
	rank 5	COUNT	55	0	5	12	25	13	46	5
		COL %	9.2 %	0 %	12.5 %	7.7 %	9.7 %	9.1 %	9.8 %	7.2 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
Base			599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
Off-road capability	rank 1	COUNT	18	0	0	6	7	5	13	4
		COL %	3 %	0 %	0 %	3.8 %	2.7 %	3.5 %	2.8 %	5.8 %
	rank 2	COUNT	28	1	2	8	10	7	22	4
		COL %	4.7 %	50 %	5 %	5.1 %	3.9 %	4.9 %	4.7 %	5.8 %
	rank 3	COUNT	41	0	6	14	16	5	31	6
		COL %	6.8 %	0 %	15 %	9 %	6.2 %	3.5 %	6.6 %	8.7 %
	rank 4	COUNT	73	0	3	15	41	14	64	6
		COL %	12.2 %	0 %	7.5 %	9.6 %	15.9 %	9.8 %	13.7 %	8.7 %
	rank 5	COUNT	439	1	29	113	184	112	338	49
		COL %	73.3 %	50 %	72.5 %	72.4 %	71.3 %	78.3 %	72.2 %	71 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
How many total miles do you typically drive per day (including any daily commute)?	0-10	COUNT	219	1	14	54	89	61	171	31
		COL %	36.6 %	50 %	35 %	34.6 %	34.5 %	42.7 %	36.5 %	44.9 %
	11-20	COUNT	192	0	16	49	87	40	155	16
		COL %	32.1 %	0 %	40 %	31.4 %	33.7 %	28 %	33.1 %	23.2 %
	21-30	COUNT	83	0	4	28	32	19	63	10
		COL %	13.9 %	0 %	10 %	17.9 %	12.4 %	13.3 %	13.5 %	14.5 %
	31-40	COUNT	47	1	4	12	18	12	39	1
		COL %	7.8 %	50 %	10 %	7.7 %	7 %	8.4 %	8.3 %	1.4 %
	41-50	COUNT	24	0	1	6	13	4	18	4
		COL %	4 %	0 %	2.5 %	3.8 %	5 %	2.8 %	3.8 %	5.8 %
	More than 50	COUNT	34	0	1	7	19	7	22	7
		COL %	5.7 %	0 %	2.5 %	4.5 %	7.4 %	4.9 %	4.7 %	10.1 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
Overall, considering all driving you do, how often would you say you drive more than 50 miles in a day?	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
	Daily	COUNT	34	0	2	8	15	9	21	6
		COL %	5.7 %	0 %	5 %	5.1 %	5.8 %	6.3 %	4.5 %	8.7 %
	Weekly	COUNT	166	1	13	46	65	41	132	22
		COL %	27.7 %	50 %	32.5 %	29.5 %	25.2 %	28.7 %	28.2 %	31.9 %
	Monthly	COUNT	229	0	11	57	109	52	182	20
		COL %	38.2 %	0 %	27.5 %	36.5 %	42.2 %	36.4 %	38.9 %	29 %
	A few times per year	COUNT	157	1	13	42	64	37	124	18
		COL %	26.2 %	50 %	32.5 %	26.9 %	24.8 %	25.9 %	26.5 %	26.1 %
	Never	COUNT	13	0	1	3	5	4	9	3
		COL %	2.2 %	0 %	2.5 %	1.9 %	1.9 %	2.8 %	1.9 %	4.3 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
How long have you owned your current vehicle (the one you drive most often)?	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
	Less than one year	COUNT	79	0	9	23	36	11	58	16
		COL %	13.2 %	0 %	22.5 %	14.7 %	14 %	7.7 %	12.4 %	23.2 %
	1-2 years	COUNT	134	0	12	42	50	30	103	18
		COL %	22.4 %	0 %	30 %	26.9 %	19.4 %	21 %	22 %	26.1 %
	3-5 years	COUNT	172	1	8	44	84	35	139	18
		COL %	28.7 %	50 %	20 %	28.2 %	32.6 %	24.5 %	29.7 %	26.1 %
	6-10 years	COUNT	93	0	7	20	37	29	73	7
		COL %	15.5 %	0 %	17.5 %	12.8 %	14.3 %	20.3 %	15.6 %	10.1 %
	More than 10 years	COUNT	121	1	4	27	51	38	95	10
		COL %	20.2 %	50 %	10 %	17.3 %	19.8 %	26.6 %	20.3 %	14.5 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
Which of the following would best describe your current vehicle (the one you drive most often)?	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
	Pickup/Truck	COUNT	94	0	7	28	38	21	73	11
		COL %	15.7 %	0 %	17.5 %	17.9 %	14.7 %	14.7 %	15.6 %	15.9 %
	Car	COUNT	235	0	13	57	100	65	191	22
		COL %	39.2 %	0 %	32.5 %	36.5 %	38.8 %	45.5 %	40.8 %	31.9 %
	SUV	COUNT	155	1	13	40	76	25	120	22
		COL %	25.9 %	50 %	32.5 %	25.6 %	29.5 %	17.5 %	25.6 %	31.9 %
	Crossover	COUNT	56	1	5	12	22	16	40	5
		COL %	9.3 %	50 %	12.5 %	7.7 %	8.5 %	11.2 %	8.5 %	7.2 %
	Van or Minivan	COUNT	40	0	2	13	18	7	29	5
		COL %	6.7 %	0 %	5 %	8.3 %	7 %	4.9 %	6.2 %	7.2 %
	Other (please specify)	COUNT	19	0	0	6	4	9	15	4
		COL %	3.2 %	0 %	0 %	3.8 %	1.6 %	6.3 %	3.2 %	5.8 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
Which of the following would best describe how your current vehicle (the one you drive most often) is powered?	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
	Gas powered	COUNT	547	2	39	145	229	132	423	66
		COL %	91.3 %	100 %	97.5 %	92.9 %	88.8 %	92.3 %	90.4 %	95.7 %
	Diesel powered	COUNT	21	0	1	6	11	3	18	1
		COL %	3.5 %	0 %	2.5 %	3.8 %	4.3 %	2.1 %	3.8 %	1.4 %
	Electric	COUNT	6	0	0	0	5	1	4	1
		COL %	1 %	0 %	0 %	0 %	1.9 %	0.7 %	0.9 %	1.4 %
	Hybrid	COUNT	25	0	0	5	13	7	23	1
		COL %	4.2 %	0 %	0 %	3.2 %	5 %	4.9 %	4.9 %	1.4 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
How likely are you to buy a vehicle within the next year?	Very likely	COUNT	49	0	5	10	23	11	32	12
		COL %	8.2 %	0 %	12.5 %	6.4 %	8.9 %	7.7 %	6.8 %	17.4 %
	Somewhat likely	COUNT	111	0	6	28	52	25	90	9
		COL %	18.5 %	0 %	15 %	17.9 %	20.2 %	17.5 %	19.2 %	13 %
	Not very likely	COUNT	193	1	16	58	75	43	151	22
		COL %	32.2 %	50 %	40 %	37.2 %	29.1 %	30.1 %	32.3 %	31.9 %
	Not likely at all	COUNT	246	1	13	60	108	64	195	26
		COL %	41.1 %	50 %	32.5 %	38.5 %	41.9 %	44.8 %	41.7 %	37.7 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
How likely are you to buy a vehicle within the next 5 years?	Base		439	2	29	118	183	107	346	48
			--	0.46%	6.61%	26.88%	41.69%	24.37%	78.82%	10.93%
	Very likely	COUNT	69	1	3	12	32	21	57	4
		COL %	15.7 %	50 %	10.3 %	10.2 %	17.5 %	19.6 %	16.5 %	8.3 %
	Somewhat likely	COUNT	187	1	12	51	84	39	148	22
		COL %	42.6 %	50 %	41.4 %	43.2 %	45.9 %	36.4 %	42.8 %	45.8 %
	Not very likely	COUNT	117	0	8	36	42	31	90	17
		COL %	26.7 %	0 %	27.6 %	30.5 %	23 %	29 %	26 %	35.4 %
	Not likely at all	COUNT	66	0	6	19	25	16	51	5
		COL %	15 %	0 %	20.7 %	16.1 %	13.7 %	15 %	14.7 %	10.4 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
Do you anticipate the new vehicle you buy will be smaller, larger or the same size as the current vehicle you drive most often?	Base		416	2	26	101	191	96	327	47
			--	0.48%	6.25%	24.28%	45.91%	23.08%	78.61%	11.30%
	Larger	COUNT	80	1	7	24	30	18	67	7
		COL %	19.2 %	50 %	26.9 %	23.8 %	15.7 %	18.8 %	20.5 %	14.9 %
	Smaller	COUNT	61	0	1	14	36	10	43	11
		COL %	14.7 %	0 %	3.8 %	13.9 %	18.8 %	10.4 %	13.1 %	23.4 %
	Same size	COUNT	232	1	13	50	108	60	184	26
		COL %	55.8 %	50 %	50 %	49.5 %	56.5 %	62.5 %	56.3 %	55.3 %
	Not sure	COUNT	43	0	5	13	17	8	33	3
		COL %	10.3 %	0 %	19.2 %	12.9 %	8.9 %	8.3 %	10.1 %	6.4 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
If the purchase price of a new vehicle of your choice was the same for an electric and a traditional gas or diesel powered vehicle, how likely would you be to purchase the electric powered version of the vehicle?	Base		416	2	26	101	191	96	327	47
			--	0.48%	6.25%	24.28%	45.91%	23.08%	78.61%	11.30%
	Very likely	COUNT	135	0	4	28	60	43	102	19
		COL %	32.5 %	0 %	15.4 %	27.7 %	31.4 %	44.8 %	31.2 %	40.4 %
	Somewhat likely	COUNT	133	0	8	31	62	32	103	15
		COL %	32 %	0 %	30.8 %	30.7 %	32.5 %	33.3 %	31.5 %	31.9 %
	Not very likely	COUNT	101	1	11	30	42	17	82	8
		COL %	24.3 %	50 %	42.3 %	29.7 %	22 %	17.7 %	25.1 %	17 %
	Not likely at all	COUNT	47	1	3	12	27	4	40	5
		COL %	11.3 %	50 %	11.5 %	11.9 %	14.1 %	4.2 %	12.2 %	10.6 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
If the distance you could drive on a tank of gas or battery charge was the same for an electric and a traditional gas or diesel powered vehicle, how likely would you be to purchase the electric powered version of the vehicle?	Base		416	2	26	101	191	96	327	47
			--	0.48%	6.25%	24.28%	45.91%	23.08%	78.61%	11.30%
	Very likely	COUNT	170	1	6	37	77	49	130	22
		COL %	40.9 %	50 %	23.1 %	36.6 %	40.3 %	51 %	39.8 %	46.8 %
	Somewhat likely	COUNT	135	0	8	35	60	32	106	14
		COL %	32.5 %	0 %	30.8 %	34.7 %	31.4 %	33.3 %	32.4 %	29.8 %
	Not very likely	COUNT	77	1	8	21	36	11	64	6
		COL %	18.5 %	50 %	30.8 %	20.8 %	18.8 %	11.5 %	19.6 %	12.8 %
	Not likely at all	COUNT	34	0	4	8	18	4	27	5
		COL %	8.2 %	0 %	15.4 %	7.9 %	9.4 %	4.2 %	8.3 %	10.6 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
Which of the following would be most important to you in purchasing an electric vehicle?	Base		314	1	14	74	140	85	243	37
			--	0.32%	4.46%	23.57%	44.59%	27.07%	77.39%	11.78%
	Purchase price	COUNT	169	0	9	36	75	49	128	23
		COL %	53.8 %	0 %	64.3 %	48.6 %	53.6 %	57.6 %	52.7 %	62.2 %
	Driving range	COUNT	110	1	4	26	48	31	89	9
		COL %	35 %	100 %	28.6 %	35.1 %	34.3 %	36.5 %	36.6 %	24.3 %
	Other (please specify)	COUNT	35	0	1	12	17	5	26	5
		COL %	11.1 %	0 %	7.1 %	16.2 %	12.1 %	5.9 %	10.7 %	13.5 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
Which of the following would best describe the electric vehicle you would be most interested in purchasing?	Base		314	1	14	74	140	85	243	37
			--	0.32%	4.46%	23.57%	44.59%	27.07%	77.39%	11.78%
	Electric Pickup/Truck	COUNT	25	0	2	6	11	6	21	3
		COL %	8 %	0 %	14.3 %	8.1 %	7.9 %	7.1 %	8.6 %	8.1 %
	Electric Car	COUNT	106	0	0	21	46	39	83	11
		COL %	33.8 %	0 %	0 %	28.4 %	32.9 %	45.9 %	34.2 %	29.7 %
	Electric SUV	COUNT	107	1	5	29	52	20	87	13
		COL %	34.1 %	100 %	35.7 %	39.2 %	37.1 %	23.5 %	35.8 %	35.1 %
	Electric Crossover	COUNT	59	0	5	14	25	15	39	8
		COL %	18.8 %	0 %	35.7 %	18.9 %	17.9 %	17.6 %	16 %	21.6 %
	Electric Van/Minivan	COUNT	17	0	2	4	6	5	13	2
		COL %	5.4 %	0 %	14.3 %	5.4 %	4.3 %	5.9 %	5.3 %	5.4 %

			Total	EDUCATION_ROLLUP					Q4_Rent_Own	
				Some high school	High school graduate	Some college	College graduate	Graduate school plus	Own	Rent
Do you own a voice-activated smart speaker like an Amazon Echo, Google Home or Apple HomePod device?	Base		599	2	40	156	258	143	468	69
			--	0.33%	6.68%	26.04%	43.07%	23.87%	78.13%	11.52%
	Yes	COUNT	136	1	13	28	61	33	110	13
		COL %	22.7 %	50 %	32.5 %	17.9 %	23.6 %	23.1 %	23.5 %	18.8 %
	No	COUNT	459	1	26	127	195	110	354	56
		COL %	76.6 %	50 %	65 %	81.4 %	75.6 %	76.9 %	75.6 %	81.2 %
	Not sure	COUNT	4	0	1	1	2	0	4	0
		COL %	0.7 %	0 %	2.5 %	0.6 %	0.8 %	0 %	0.9 %	0 %