



# FAQ and Messaging Info: Electric Vehicles

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### Core Messaging

Now is an excellent time for Texans to consider plug-in electric vehicles (EVs). EVs aid in improving regional air quality and can help reduce Texas commuters' dependence on foreign energy sources. Oncor is preparing Texas' electric grid for EVs by building 1,000 miles of new transmission lines, delivering electricity from Texas' Competitive Renewable Energy Zones (CREZ) for virtually emissions-free charging. We have installed more than 3.2 million advanced meters, which allows Texans to better manage their power usage, take advantage of Time of Use (TOU) plans from their Retail Electric Providers (REPs) and charge their EVs when electricity prices are low.

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### 1. Why electric vehicles?

See the benefits of EVs below:

- **Electric vehicles benefit the environment.** EVs are better for the environment because they do not release tailpipe emissions that contribute to smog. In Texas, near zero emission driving can be achieved by charging EVs at night when clean wind power is most abundant. A recent study by the Electric Power and Research Institute (EPRI) found that EVs produce fewer greenhouse gas emissions than gasoline-powered vehicles, even when they rely primarily on electricity generated by coal-fired power plants.
  - **Electric vehicles are economical.** Powering EVs costs roughly 3¢ per mile vs. 14¢ per mile for gasoline (based on 10¢ per kWh electricity and \$3.50 per gallon gasoline prices). Because EVs are powered by domestic energy resources—natural gas, coal, nuclear, wind—they help reduce dependence on foreign oil. Assuming electricity cost 10¢ per kWh and an average of 40 miles are traveled per day, additional monthly electricity costs will be around \$30. Assuming \$3.50 per gallon of gas, monthly gasoline costs would be \$140 driving a gasoline car the same distance each day.
  - **Electric vehicles contribute to economic stability.** Because EVs help diversify energy sources required for transportation, the impact of geopolitical unrest or shortages of a specific energy source has less of an impact on the overall economy.
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## 2. Why Oncor?

**Competitive Renewable Energy Zones (CREZ).** Texas has more wind power than any other state in the U.S. Wind power will charge electric cars cleanly and cheaply. Oncor is helping to bring this wind to Texans through 1,000 miles of new transmission lines connecting CREZ to the rest of the state.

**Advanced Meters.** Currently, with the use of advanced meters, Oncor customers are able to obtain valuable information that enables them to take advantage of time of use (TOU) plans from their REPs and charge EVs when prices are low.

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## Oncor Electric Vehicle Support

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### 3. Does Oncor offer any rebates or incentives to customers in their service area purchasing an electric car?

No. However, federal tax credits are available to offset some electric vehicle purchase costs. For more information on federal tax incentives available, please visit <http://www.fueleconomy.gov/feg/taxevb.shtml>.

Additionally, there are other tax credits and grants available to help offset the cost of home charging stations.

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### 4. Will Oncor have public access charging stations in my area?

Oncor has no plans to install charging stations, and under current market rules, is prohibited from doing so. However, we are working with numerous stakeholders currently installing or planning to install electric vehicle charging stations in our service territory. Oncor's focus is to ensure that the electric grid is available and sufficient to support electric vehicle charging, whether at home or public charging stations.

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### 5. Does Oncor own any electric vehicles?

Oncor currently owns six Chevy Volts and six Nissan LEAFs and Oncor has installed 25 charge ports at company facilities across our system to support our EV fleet.

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## Electric Vehicle Charging

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### 6. How are EVs charged?

EVs can be charged using a standard electric wall socket (no special plug is required). This is called level 1 home charging. If customers desire faster charging, they can engage an electrician to install a 240 volt, level 2 charger. Additionally, we anticipate that a number of businesses and government agencies will install public charging stations with level 2 or even faster DC fast charging.

#### **Electrical Vehicle Charging Levels**

<b>Level 1</b>	<b>120-Volt</b>	15-Ampere	Single-Phase
<b>Level 2</b>	<b>240-Volt</b>	30-Ampere	Single-Phase
<b>DC Fast Charge</b>	<b>480-Volt</b>	85-Ampere	

Source: U.S. Department of Energy

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### 7. What kind of connection do I need to charge the car?

It depends on the vehicle model, but many models can be charged using a standard 120v outlet or a 240v charger. When considering purchasing an electric car, we recommend you contact a licensed electrician who can assess the impact of the additional load to your home or business. When considering purchasing an electric car, notify Oncor by calling 1-888-313-6862 so we can assess the potential impact of the additional load to the power distribution system that serves your house.

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### 8. Do I need a city inspection before installing a plug for my electric car?

This depends on the local municipal codes in your area.

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### 9. Can I charge my electric car any time of the day?

You are able to charge your vehicle at any time of the day. However, the optimal time to recharge is overnight when the electric grid is less loaded and clean wind power is more abundant.

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### 10. How far will my electric car run once it has fully charged?

The range of EVs varies with each model and is dependent on driving behaviors and weather conditions. Currently, available electric driving ranges vary from 13 to over 200 miles per charge. See your local EV dealer for more information.

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**11. How do I find out where a public charging station is located?**

To find public charging stations in your area, visit one of the following websites:

National Renewable Energy Laboratory: <http://maps.nrel.gov/transatlas>

Metroplex Charging Station Map:

<https://maps.google.com/maps/ms?msid=211891722519472891922.0004a754eab81f5c0cf11&msa=0>

ChargePoint: <http://www.mychargepoint.net/find-stations.php>

The EV Project: <http://www.theevproject.com/charging-maps.php>

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## **Electric Vehicle Reliability**

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**12. Is Oncor participating in any research regarding the impact EVs might have on the electric grid?**

Yes. To better understand consumer behavior patterns, Oncor has joined collaborative research projects sponsored by EPRI, General Motors and other utilities across the country.

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**13. What happens if more of my neighbors get an electric car – could that cause a power outage?**

As Oncor is notified of EV purchases, we will assess the impact of the added load on the power distribution system that serves their home and make appropriate system upgrades to minimize the potential reliability impact of the added loads.

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**14. I live in an apartment – should I consider purchasing an electric car?**

Customers living in apartments, townhomes and other multi-family dwellings will need to speak with their property management before considering an electric car.

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**15. Can Oncor install a charging station at my home?**

Under current market rules in Texas, Oncor is prohibited from doing work on the customer side of the meter and does not install charging stations in homes. Oncor is working with cities, charging station suppliers and vehicle manufacturers to ensure training is available for electricians in our service territory. Additionally, when Oncor is notified of the charging station installation, we will assess the power distribution system that serves your home and perform any system upgrades required to minimize the potential reliability impacts of the added load.

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## Vehicle Questions

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### 16. Which EVs are available now?

A list of current and forthcoming EVs is available online:

<http://www.pluginamerica.org/vehicles/>

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## Safety and Health Questions

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### 17. Are electric vehicles safe?

Like gas-powered vehicles, electric and hybrid-EVs are required to meet all applicable Federal motor vehicle safety standards, as established by the National Highway Traffic Safety Administration.

All electric vehicle charging systems must be certified by a nationally recognized certification laboratory like any other electric appliance.

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<sup>1</sup>[A Survey of Extremely Low Frequency Magnetic Fields Associated with Electric Vehicles,](#)”  
*Electric Power Research Institute*, June 21, 2010.

## Previous Electric Vehicle Research

### Electric Power and Research Institute (EPRI):

“Environmental Assessment of Plug-In Hybrid Electric Vehicles Volume 1: Nationwide Greenhouse Gas Emissions,” *Electric Power Research Institute*, July 2007.

[http://my.epri.com/portal/server.pt?space=CommunityPage&cached=true&parentname=ObjMgr&parentid=2&control=SetCommunity&CommunityID=404&RaiseDocID=00000000001015325&RaiseDocType=Abstract\\_id](http://my.epri.com/portal/server.pt?space=CommunityPage&cached=true&parentname=ObjMgr&parentid=2&control=SetCommunity&CommunityID=404&RaiseDocID=00000000001015325&RaiseDocType=Abstract_id)

“Characterizing Consumers’ Interest in and Infrastructure Expectations for Electric Vehicles: Research Design and Survey Results,” *Electric Power Research Institute*, May 2010.

[http://my.epri.com/portal/server.pt?Abstract\\_id=000000000001021285](http://my.epri.com/portal/server.pt?Abstract_id=000000000001021285)

“A Survey of Extremely Low Frequency Magnetic Fields Associated with Electric Vehicles,” *Electric Power Research Institute*, June 21, 2010.

[http://my.epri.com/portal/server.pt?Abstract\\_id=000000000001021125](http://my.epri.com/portal/server.pt?Abstract_id=000000000001021125)

### National Renewable Energy Lab (NREL):

“Costs and Emissions Associated with Plug-In Hybrid Electric Vehicle Charging in the Xcel Energy Colorado Service Territory,” *National Renewable Energy Lab*, May 2007.

<http://www.xcelenergy.com/SiteCollectionDocuments/docs/41410.pdf>

### Pacific Northwest National Laboratory (PNNL):

“Impacts Assessment of Plug-in Hybrid Electric Vehicles on Electric Utilities and Regional Power Grids, Part 1: Technical Analysis,” *Pacific Northwest National Laboratory*, 2006.

[http://energytech.pnl.gov/publications/pdf/PHEV\\_Feasibility\\_Analysis\\_Part1.pdf](http://energytech.pnl.gov/publications/pdf/PHEV_Feasibility_Analysis_Part1.pdf)

“Impacts Assessment of Plug-in Hybrid Electric Vehicles on Electric Utilities and Regional Power Grids, Part 2: Economic Analysis,” *Pacific Northwest National Laboratory*, 2007.

[http://energytech.pnl.gov/publications/pdf/PHEV\\_Economic\\_Analysis\\_Part2\\_Final.pdf](http://energytech.pnl.gov/publications/pdf/PHEV_Economic_Analysis_Part2_Final.pdf)

“Plug-in Hybrid Electric Vehicle Market Penetration Scenarios,” *Pacific Northwest National Laboratory*, September 2008.

[http://www.pnl.gov/main/publications/external/technical\\_reports/PNNL-17441.pdf](http://www.pnl.gov/main/publications/external/technical_reports/PNNL-17441.pdf)



“Plug-in Electric Vehicle Infrastructure: A Foundation for Electrified Transportation,” *Pacific Northwest National Laboratory*, April 8, 2010.  
<http://www.nrel.gov/docs/fy10osti/47951.pdf>

**KEMA:**

“Assessment of Plug-in Electric Vehicle Integration with ISO/RTO Systems,” *ISO/RTO Council (IRC)/KEMA*, March 2010.  
[http://www.isorto.org/atf/cf/%7B5B4E85C6-7EAC-40A0-8DC3-003829518EBD%7D/IRC\\_Report\\_Assessment\\_of\\_Plug-in\\_Electric\\_Vehicle\\_Integration\\_with\\_ISO-RTO\\_Systems\\_03232010.pdf](http://www.isorto.org/atf/cf/%7B5B4E85C6-7EAC-40A0-8DC3-003829518EBD%7D/IRC_Report_Assessment_of_Plug-in_Electric_Vehicle_Integration_with_ISO-RTO_Systems_03232010.pdf)

“Electric Vehicles in Houston: Motivations, Trends, and Distribution System Impacts,” *KEMA-CenterPoint Energy*, October 14, 2010.  
<http://www.kema.com/services/consulting/utility-future/electric-vehicles/default.aspx>

**Environment Texas:**

“Plug-In Cars: Powering America Toward a Cleaner Future,” *Environment Texas*, January 2010.  
<http://www.environmenttexas.org/uploads/bd/93/bd931b95c6a88f1cb595f86705248535/TXE-Plug-ins-text.pdf>