

# Electric Transportation Toolkit for Electric Membership Cooperatives

February 2020

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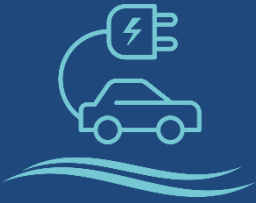
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# Frequently Asked Questions (FAQs)

## **How far can you drive an electric vehicle (EV) on one charge?**

Most of the pure electric vehicles have a battery range between 100 – 300 miles. The average American travels 60 miles per day, so even the 100 mile range will provide plenty of power to travel to normal daily activities. Then they would be able to plug it in to recharge overnight. However, many of the newer EV models have battery ranges of over 300 miles.

## **How/where can I charge?**

There are two main charging location options: at home or at public charging locations. The most common place to charge is at home. For residential charging, a driver can either use their existing outlets in their garage for Level I charging or install a Level II charger for \$400 - \$800. As EVs become more popular, public charging options continue to pop up. These are other funded by private companies, such as Electrify America, or are installed by stores, hotels and restaurants to allow their customers to charge while enjoying their services.

There are [three charging levels](#). Level I charging capabilities come with all electric vehicles on the market. It is a 110-volt charger that can charge a plug-in hybrid or extended-range electric vehicle overnight, but would take more than 24-hours to charge a pure electric vehicle. This basically equals plugging your car into a regular outlet in your garage. Level II is a 220 volt charger, which most EV owners opt to install in their homes. It is more powerful and can charge an EV in roughly 8-10 hours. Finally, DC Fast Chargers provides a 500 volt current, and it typically used at public charging locations. It provides an 80 percent charge to most electric vehicles in about an hour.

## **Will an EV raise my electricity bill?**

If electricity costs \$0.11 per kilowatt-hour, charging an EV with a 70-mile range (assuming a fully depleted 24 kWh battery) will cost about \$2.64 to reach a [full charge](#). This cost is about the same as operating an average central air conditioner for about 6 hours. Although adding an EV to a household will increase the demand for electricity, these increased costs for electricity will be largely offset by less maintenance and less/no gasoline required.

## **Are EVs expensive?**

There are currently 6 pure EVs that have an MSRP from \$30-36,000. With the \$7,500 Federal tax credit the cost makes them very close to a comparable gasoline-powered vehicle. Plus, they have lower fuel and maintenance costs.

## **Are they dirtier than gas cars because they are powered mostly by coal and natural gas in the South?**

More coal plants are being taken off-line every day as they age out and natural gas is the most common fuel used to generate electricity in the US. Renewable energy sources like: wind, biomass, and solar comprise 15%

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of our electricity production. EVs are the only mode of transportation that will continue to get greener as we green our energy sources. If you pair roof top solar with an EV you are virtually driving on sunshine.

Additionally, even in a state with the dirtiest mix of energy, electric vehicles [are three times more efficient](#) than an internal combustion engine vehicle. That's primarily because electric motors are 90-percent efficient at converting energy into motion, compared to 30 to 40 percent for conventional cars and hybrids. But considering the energy lost in producing, transmitting, and storing electricity, the real differences are much smaller. But in regions with renewable and clean electric production, electric cars still maintain much of their advantage.

### **Are EVs just a fad?**

Despite the current increased visibility of electric vehicles, the demand for EVs has been steadily growing for years. After the success of early models such as the Toyota Prius, automakers have pledged to grow the percentage of their production that is either hybrid or all-electric vehicles. Automakers are also investing in EVs to meet fuel economy requirements, or zero-emission mandates in states such as California.

China is now the world's largest vehicle market. They have set goals to [end the sale of petrol or diesel cars](#) which has set off a chain of significant [announcements by auto makers](#).

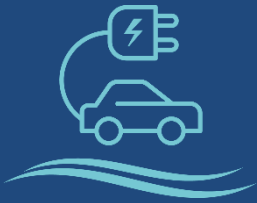
### **Are there many choices other than small cars?**

Although initially most EV options were smaller models, this is no longer the case. Because of automaker innovation, there are now a [wide variety](#) of EV/hybrid models. There are mini-van options, such as the Chrysler Pacifica Hybrid. There are also crossover/SUV options such as the Hyundai Ioniq Electric or the Kia Niro EV. Finally, even larger freight vehicles are entering the market or are on the brink of sale. [Tesla and Rivian](#) are working to release all-electric pickup trucks, and Tesla is already advertising a long-haul semi that they hope to produce.

There are also innovations in the electric school bus, fleet vehicles and public transportation fields. Companies like [Proterra](#) are generating electric school and transit buses. The first [electric garbage trucks](#) have also been released to market in the last year in places like Seattle. As innovation in the EV market grows, the options for vehicles will continue to grow as well.

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# Electric Vehicles: Benefits

## Benefits

### EVs are fun to drive!

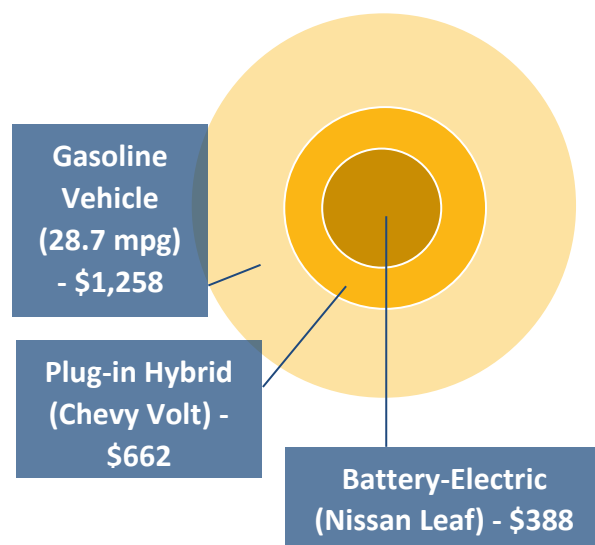
Electric vehicles provide an improved driving experience over internal combustion engine vehicles. EVs are quick and they are also quieter. This provides for an improved driver experience for both the driver and passengers.

### Lower Fuel & Maintenance Costs

EVs typically are cheaper to operate than conventional vehicles because:

- The battery, motor, and associated electronics require little to no regular maintenance
- There are fewer fluids to change
- Brake wear is significantly reduced due to regenerative braking
- EVs are cheaper to fuel. An EV driver in Georgia saved over \$850 in 2014 compared with a driver of a gas-powered vehicle.

### How Much Average Georgia Driver Spent on Fuel



### Fuel Up at Home

Most EVs can be charged at home, using either a simple wall socket or a Level 2 charging station added to the home. This home charging capability makes owning an EV far more convenient than a gas-powered vehicle.

### By the NUMBERS

EV lifetime emissions  
**50% less**  
than traditional car

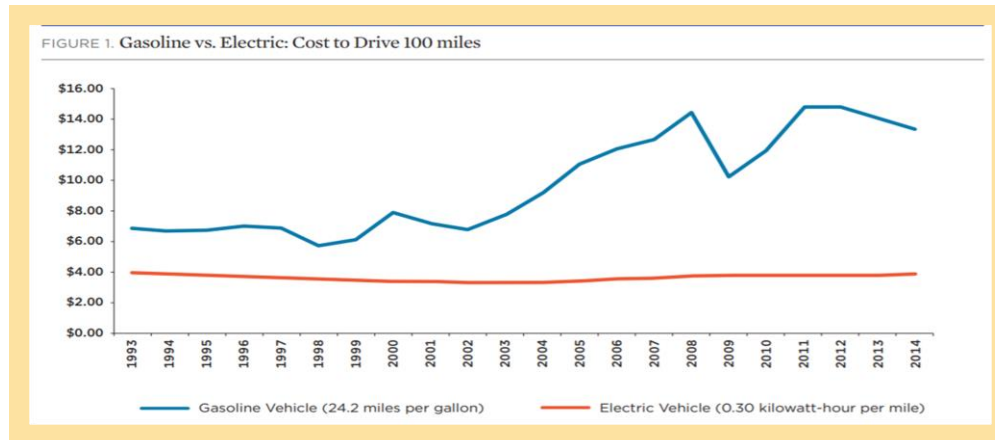
**\$1.21**  
Per electric  
eGallon

Fuel efficiency over  
**100 MPGe**  
for most EVs



## Energy Security & Price Volatility

The cost of electricity has historically been lower and more stable than the cost of gasoline.



## Increased Local Spending & Local Jobs

Electric vehicles generate economic benefits to the state. They are cheaper to fuel than gas-powered vehicles, therefore spending less on fuel frees up households to spend more in other economic sectors that are more job intensive than the oil and gas industry.

Additionally, the money EV drivers do spend on fuel goes to power companies that employ Georgians, rather than paying for crude oil which originates outside of the state.

## Public Health & the Environment

EVs reduce emissions. Many of Georgia's counties continue to suffer from reduced air quality and do not meet federal air quality standards. Increasing the number of electric vehicles driven over conventional gasoline vehicles will help reduce overall emissions and help Georgia comply with federal attainment standards, reducing the health and economic costs of non-compliance.

Studies show that driving an EV will reduce greenhouse gas emissions, regardless of the type of power used to power the EV. However, the emissions reduction will be higher in areas that use renewable resources to power the vehicles.

By the  
NUMBERS

**\$3.43**  
Per 100 miles

Fuel savings of  
**\$500**

**>40,000**  
EVs in Georgia



# Electric Vehicles: Charging

## What's in a charge?

The distance that an electric vehicle can travel varies by battery size. Most pure EVs manufactured today have a minimum range of 150 miles on a charge. The time it takes to charge also varies based on speed and power of the charging source. Below you find information on the different types of charging available and the range of many of the most popular EVs.

## Understanding Levels of Charging

### Level 1 Charging

- Connector provided with every EV
- Plug into a standard 120 V or 240 V wall outlet
- Great for overnight or workplace charging
- Ideal for typical commutes (up to 40 miles)



**40 miles**  
12-24 hours

### Level 2 Charging

- Faster charging for longer drives
- Provides a full charge for most EVs in:
  - 4-8 hours for 100% electric vehicles
  - 1-2 hours for hybrid vehicles

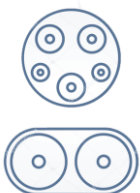


**25 miles**  
per hour of  
charging

### DC Fast Charging

- Much faster charging at public locations
- Three (3) different connectors depending on vehicle:

CCS Combo



CHAdeMO



Tesla Supercharger

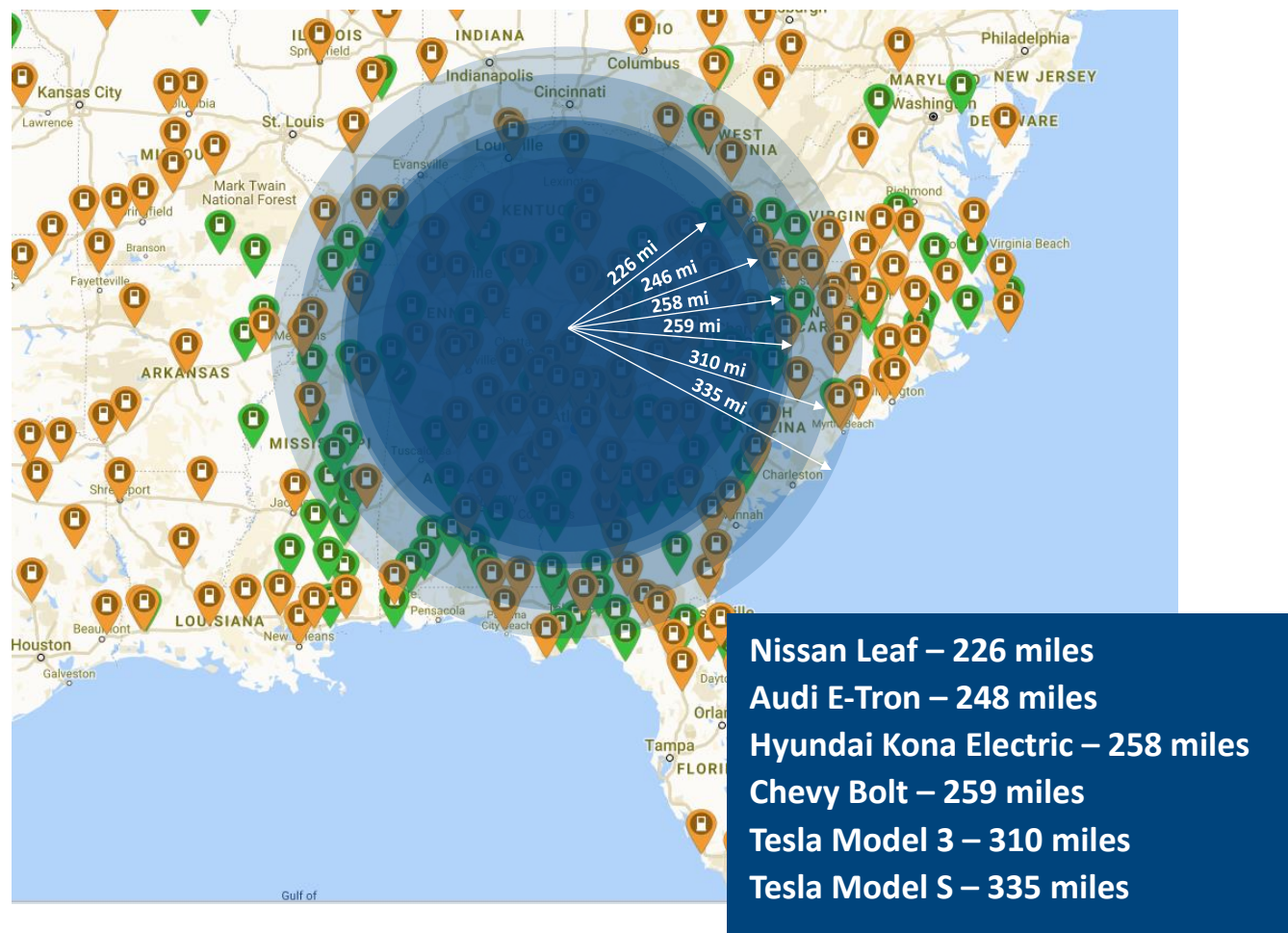


**0-80%**  
30-45 minutes



# Electric Vehicle Range – How far can you drive?

## EV Battery Range



## Cost of Installation

	Station Cost	Parts & Labor Cost
Level 1	\$300 - \$600	\$1,000 - \$1,700
Level 2	\$500 - \$700	\$1,200 - \$2,000
DC Fast Charger	\$1,000 - \$2,000	\$2,300 - \$6,000



# Electric Vehicle Options in Georgia

## All-Electric Vehicles



Hyundai Ioniq

**Range:**  
124 mi  
**MSRP:**  
\$20k - \$26k



Nissan LEAF

**Range:**  
150 - 226 mi  
**MSRP:**  
\$30k - \$42.6k



Kia Niro EV

**Range:**  
239 mi  
**MSRP:**  
\$38k+



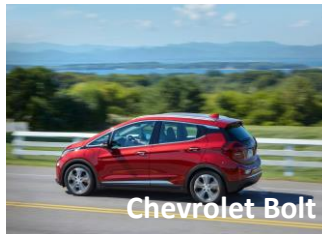
Kia Soul

**Range:**  
111 mi  
**MSRP:**  
\$17k+



Hyundai Kona Electric

**Range:**  
258 mi  
**MSRP:**  
\$18k - \$24k



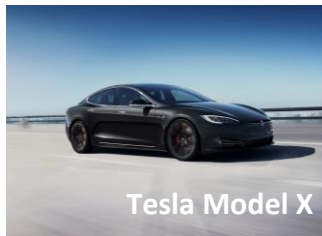
Chevrolet Bolt

**Range:**  
259 mi  
**MSRP:**  
\$36.6k



Tesla Model 3

**Range:**  
240 - 310 mi  
**MSRP:**  
\$39k - \$59k



Tesla Model X

**Range:**  
345 - 370 mi  
**MSRP:**  
\$80k - \$121k



Blue Bird

**School Bus**  
**Range:**  
120 mi



Proterra

**Transit Bus**  
**Range:**  
Up to 225 mi

## Types of EVs

An electric vehicle (EV) is propelled via an electric motor and an electric energy storage system like a battery, instead of an internal combustion engine and a gas tank.

There are two basic kinds of EVs:

- **Battery Electric Vehicles (BEVs)** that run exclusively on electricity
- **Plug-in- Hybrid Electric Vehicles (PHEVs)** that run on electricity for a limited distance before switching to gas/electric hybrid mode

## Why now?

Battery technology improvements have been driven by massive growth in portable computer electronics (cell phones, cameras, laptops) – better performance with lower



## Plug-In Hybrid Vehicles

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Chrysler Pacifica Hybrid

**Gas + Electric  
Range:**  
520 mi  
**MSRP:**  
\$40.2k+



Kia Niro Hybrid

**Gas + Electric  
Range:**  
560 mi  
**MSRP:**  
\$23.5k+



Volvo S90 T8 eAWD

**Gas + Electric  
Range:**  
490 mi  
**MSRP:**  
\$63.2k+



Honda Clarity

**Gas + Electric  
Range:**  
340 mi  
**MSRP:**  
\$33.4k+



Toyota Prius Prime

**Gas + Electric  
Range:**  
640 mi  
**MSRP:**  
\$27.8k+



Ford Fusion Energi

**Gas + Electric  
Range:**  
610 mi  
**MSRP:**  
\$37k+

## Coming Soon

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BYD

**Garbage Truck  
Range:**  
76 mi



Daimler

**Freightliner  
Range:**  
230 mi



Tesla

**Semi  
Range:**  
600 mi



Workhorse

**Delivery Truck  
Range:**  
80 mi



Rivian

**Pickup Truck  
Range:**  
300 - 410 mi



Tesla

**Pickup Truck  
Range:**  
250 - 500 mi



# Hosting an Electric Vehicle Experience Event

## Introduction

Electric transportation is gaining momentum. In the past eight years, the number of electric vehicles (EVs) in the U.S. has increased to more than one million. The number of models available to consumers jumped from five to nearly 50 models available in the Southeast region. However, the number of electric vehicles on U.S. roads remain fewer than 3% of all vehicles. The general public is still largely uninformed about the capabilities, availability, cost, savings, and practicality of EVs.

Driving, riding, or simply getting inside an EV are among the best ways to promote and increase awareness of these vehicles. These events, often called 'Show & Drives' or 'Ride & Drives' are events that display or offer a driving experience can bring consumers and vehicles together, help dispel some myths about EVs, and increase awareness. These events require extensive planning, coordination, access to vehicles, current drivers and experts on vehicles and charging. Below is a guide of considerations for organizing these events.

## What Makes a Great EV Experience?

### Establish Event Goals

- All participants ride or drive in an EV or set a # goal
- Existing gasoline vehicle drivers consider an EV for their next car
- Attendees share information about EVs with a friend, neighbor, colleague, or others

### What Makes a Successful Event?

- A range of electric vehicle options across multiple price points are on display or available for rides or to be driven by participants
- Participants include drivers who do not currently own an EV
- Resource *materials* are available to help participants learn about the benefits of EVs, EV options, and charging
- Current EV drivers are available to share their experience with participants

Note: Event size and scale can vary and is not the determinate of a successful event

## Event Logistics

## Planning Timeline

### 1-2 Months Before

- ✓ Reach out to drivers, dealers, and/or corporate auto makers
- ✓ Invite event speakers
- ✓ Create marketing materials for the event
- ✓ Send out notice to prospective participants:
  - EMC member newsletters
  - Local media
  - Social media

### 1-2 Weeks Before

- ✓ Promote the event to potential attendees and local media
- ✓ Maintain consistent communication with all event stakeholders
- ✓ Prepare all event materials
- ✓ Send out reminders to prospective participants through selected channels

### The Week of

- ✓ Send reminders to speakers, drivers, dealers, automakers, sponsors or others
- ✓ Send out reminders to prospective participants
- ✓ Send out reminders to prospective participants through selected channels

## Acquiring Vehicles

Vehicles can be provided by dealers, corporate fleets currently using EVs, and individual drivers. There are several key factors to consider when working with each type of owner.

### Dealers:

- Dealers can be a great resource on site because they can make the vehicles available for a test drive. They also can discuss buying options with attendees and can often provide sponsorship or financial support for the event.
- However, they are not often the most knowledgeable about the vehicles; they don't need to keep a large stock of EVs in inventory and thus cannot provide advance guarantee of having a vehicle for the date of the event.

### Individual Owners:

- Individual owners can share their direct first-hand experience of driving and owning an EV.
- However, most owners do not want strangers driving their cars and so drives are often not available in those cars.

### Corporate Fleets:

- Some auto manufacturer's corporate teams have access to the latest EVs. They can schedule and offer them for use at events.
- They are generally knowledgeable about the technology, can offer ride/driving experiences and will often provide sponsorship or financial support to participate and display.
- Corporate teams may have limited availability.

## Time & Location

Pick a venue that's centrally located, has parking lot, or designated space to drive the vehicles

## EV Education Materials

Education materials provided at the event should include the following:

- General benefits of EVs – fuel savings, driving experience, emissions, etc.
- Vehicle types and options; including tips for buying
- Resources on how to charge, types of charging, and charging options
- Presentations - These may be helpful depending on the structure of the event. They should be brief; most of the lessons will be taught by owners, dealers at the vehicle display or ride and drive

## Sample Event Agenda

- Check-In
- EV Education presentations or briefing to participants
- The Experience: Show, Ride or Drive an EV(~15 minutes per rider or driver)
- Survey drivers

## Marketing and Event Promotion

Depending on the size and the type of audience that you want to reach, marketing and other resource materials can be valuable tools. Some promotional ideas include:

- Send a postcard invitation to your mailing list
- Send an email invitation to your mailing list
- Hang banners in high traffic areas to advertise the event
- Use online and social tools to share the event publicly

## Other details

- Experts are important for professional audiences, but not necessary for a successful event.
- In more rural areas, there are currently limited availability of vehicle and owner options.

## Day of Event Checklist

- ✓ Set up display materials and sign in area
- ✓ Greet drivers, automakers, and other participant



# EV Event Sample Graphics

## What makes an effective event advertisement?

Because most consumers are largely unaware of the benefits of an electric vehicle, advertising for events that educate and spread awareness about EVs is vital. In an advertisement, it is key to have basic event information, such as location, date, and time. However, most importantly, including a graphic or picture with an example of an electric vehicle that will be at the event is the most effective way to draw in potential event attendees. This will not only pique consumers' curiosity, but it will give them a better reference for what an EV actually looks like.

Below are a few samples of utilities that have successfully advertised for EV events, such as ride-and-drives.

## Sample Event Graphics



**OglethorpePower**

**TAKE CHARGE**  
with Electric Vehicles

Electric Vehicles (EVs) are coming and they represent a significant growth opportunity for utilities. What can you do to help prepare your EMC? Oglethorpe Power invites you to attend an EV Charging Workshop and Show and Drive Event to help you **take charge** and get in the driver seat of EV adoption.

**Workshop Focus Areas:**

- EV Charging Deep Dive – from charger levels and hardware to commercial or residential program design.
- EV Show and Drive – Get behind the wheel of an EV, and also learn how to host a Show and Drive event of your own.
- EV Implementation Guide – Key considerations and steps to take to support and encourage EV adoption in your territory.

**Who Should Attend:** President/CEO, EMC Management, Communicators, Engineers, Member Services

**When:** Tuesday, December 10  
10 a.m. – 2 p.m.

**Where:** Smarr Training Center  
955 Rumble Road  
Forsyth, GA 31029

**Lunch:** Provided

**Contact:** Alan Shedd, OPC Director of Emerging Technologies  
[Alan.Shedd@opc.com](mailto:Alan.Shedd@opc.com)  
770-270-7217

**REGISTER NOW**

Oglethorpe Power Workshop



**Cobb EMC**  
October 4

Thanks to each of the members who joined us throughout the day to test drive an electric vehicle during our EV Ride and Drive & Member Appreciation Day event! [cobbemc.com/ev](http://cobbemc.com/ev) #coopmonth

**ELECTRIC VEHICLE  
POWERED BY COBB EMC**

4 Shares

Like Comment Share

Write a comment...

Cobb EMC Ride-and-Drive



National Drive Electric Week 2019

Register To Display Your Vehicle Today  
Help Make This The Largest  
EV Event In The Country

# DRIVE THE FUTURE

A T L A N T A

LENOX SQUARE<sup>®</sup>  
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- EV Conversions
- Autonomous Vehicles
- EV Interactive Displays
- EV Public Health Benefits
- EVs at Varying Price Points
- Electric Vehicles, EBikes, EScooters and more
- Vehicles That Have Driven Millions of Electric Miles

Saturday Sep 21, 2019  
Free Event: 3pm - 7pm


Drive the Future Atlanta –  
EV Show

**YOU ARE INVITED  
TO ATTEND ANY OF 4  
FREE EXPERIENCE  
ELECTRIC WORKSHOPS**

**experience  
ELECTRIC**



LEARN ABOUT EVS ON THE MARKET TODAY    FIND OUT ABOUT DISCOUNTS DURING THE EV SALES EVENT    PENCIL OUT STATE AND FEDERAL TAX CREDITS    FIGURE OUT EV CHARGING    MEET OTHER EV OWNERS



**AUG 14**  
RIFLE LIBRARY  
207 EAST AVENUE  
RIFLE  
5:30-7PM

**AUG 21**  
GLENWOOD SPRINGS LIBRARY  
815 COOPER AVE  
GLENWOOD SPRINGS  
5:30-7PM

**AUG 28**  
THIRD STREET CENTER  
320 SOUTH 3RD STREET  
CARBONDALE  
5:30-7PM

**SEP 18**  
WALKING MOUNTAINS SCIENCE CENTER  
318 WALKING MOUNTAINS LANE  
AVON  
5:30-7PM

Please RSVP: [experienceelectric.eventbrite.com](http://experienceelectric.eventbrite.com) or call 970.704.9200

PRESENTED BY:

**pay up your ride!** **CARFIELD CLEAN ENERGY** **CLEER** **walking mountains sustainability**

THE 2019 ELECTRIC VEHICLE SALES EVENT IS SPONSORED BY:  
GARFIELD CLEAN ENERGY • CLEER • WALKING MOUNTAINS SCIENCE CENTER • HOLY CROSS ENERGY  
XCEL ENERGY • CITY OF GLENWOOD SPRINGS • CITY OF ASPEN • CORE • TOWN OF AVON • TOWN OF VAIL  
EAGLE COUNTY • POST INDEPENDENT • ALPINE BANK

Holy Cross EMC  
Experience Electric  
Workshop

November  
**22** **ELECTRIC VEHICLE RIDE AND DRIVE:**  
*Atlanta Civic Center – 395 Piedmont Ave. NE*



**OPEN TO THE PUBLIC!**

**Thinking of buying or leasing an electric vehicle?**

Test drive the hottest electric vehicles on the market at the  
**Fall Ride and Drive!**

**SATURDAY, NOVEMBER 22, 2014:**  
**ATLANTA CIVIC CENTER**  
395 Piedmont Ave. NE  
Atlanta, GA 30308  
**10:00 a.m. – 2:00p.m.**

**Learn about:**

- How safe and reliable EV technology is.
- Finance and lease options.
- How to get a charging station installed at home.
- Tax credits and dealer incentives.




A collaboration of the Mayor's Office of Sustainability, the US Department of Energy, Clean Cities Georgia, and Georgia Power.

**GEORGIA POWER** **GEORGIA** **ENERGY** **power to change**

Atlanta Ride-and-Drive



# EV Tools & Incentives in the Southeast

## Virginia

### High Occupancy Vehicle (HOV) Lane Exemption



**Applies to:** All-Electric Vehicles



**Fees:** \$25 for a Clean Special Fuel license plate



**Lifespan:** 2011 – 2025



**Category:** HOV Exemption

Alternative fuel vehicles (AFVs) displaying the Virginia Clean Special Fuel license plate may [use Virginia High Occupancy Vehicle \(HOV\) lanes](#) on specified areas of I-64, I-264, the Dulles Toll Road, and in the City of Alexandria, regardless of the number of occupants. For HOV lanes serving the I-66 corridor, only registered vehicles displaying Clean Special Fuel license plates issued before July 1, 2011, are exempt from HOV lane requirements. Eligible vehicles include dedicated AFVs; see the Virginia Department of Motor Vehicles website for a complete list of qualifying vehicles. The annual fee for Clean Special Fuel license plates is \$25 in addition to the prescribed fee for commonwealth license plates.

### Alternative Fuel School Bus and Fueling Infrastructure Loans



**Applies to:** All-Electric Vehicles



**Amount:** Varies



**Enacted:** 2007



**Category:** Loans

The Virginia Board of Education may use funding from the Literary Fund to provide [loans](#) to school boards that convert school buses to operate on alternative fuels or construct alternative fueling stations. For the purpose of this section, "alternative fuels" means motor fuels other than gasoline and diesel fuel.

## EV IN ACTION

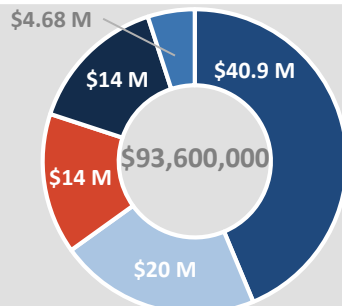
### 2019: Dominion Energy Smart Charging Infrastructure Pilot Program

Dominion Energy's new [pilot programs](#) support rideshare electrification and electric vehicle (EV) charging at multi-family communities, workplaces, transit bus depots and fast-charging locations. These incentives and new programs will help customers make decisions on how and where to charge an EV and still save money.

### 2019: Appalachian Power Time of Day Charging Rate

Appalachian Power offers residential owners of plug-in electric cars a special [time-of-day rate](#) with a discount for charging their vehicles when demand for power is lower. A residential customer with a typical electric car consumption of 2,700 kilowatt-hours (kWh) annually will save approximately \$86.50 if they home-charge their vehicle during off-peak hours under the new rate as compared to the current standard residential rate.

### Volkswagen Settlement



- TBD
- Clean School Bus Program
- EV Charging Network
- All-Electric Public Transit Buses
- Administrative Costs



# Florida

## HOV Lane Exemption



**Applies to:** Plug-In Hybrids & All Electric Vehicles



**Fees:** Cost of Florida Division of Motor Vehicles decal



**Enacted:** 2005



**Category:** HOV Exemption

A driver may operate a qualified Inherently Low Emission Vehicle (ILEV) or a hybrid electric vehicle (HEV) in an [HOV lane](#) at any time, regardless of the number of passengers, provided that the vehicle is certified and labeled in accordance with federal regulations. All eligible ILEVs and HEVs must comply with the minimum fuel economy standards set forth in Title 23 of the U.S. Code of Federal Regulations, section 166(f)(3)(B). The vehicle must display a Florida Division of Motor Vehicles issued decal, which must be renewed annually. Vehicles with decals may also use any HOV lane designated as a HOV toll lane without paying the toll. An HEV is defined as a motor vehicle that draws propulsion energy from on-board sources of stored energy comprised of both an internal combustion engine using combustible fuel and a rechargeable energy storage system and meets or exceeds the qualifying California standards for a Low Emission Vehicle.

## All-Electric Vehicle and Electric Vehicle Supply Equipment Rebates - KUA



**Applies to:** All-Electric Vehicles & Electric Vehicle Supply Equipment



**Rebate Amount:** \$100 for EV & \$100 for home EVSE



**Effective:** January 2019



**Category:** Rebate

Kissimmee Utility Authority (KUA) provides [rebates](#) of \$100 to residential customers for the purchase of a new EV and \$100 for the purchase and installation of a home EVSE. The EV must be registered to the customer's address and a proof of purchase is required. The EVSE must be installed by a licensed electrical contractor and must meet all state and local codes. Rebates are limited to one rebate per vehicle and one EVSE rebate per household.

## EV IN ACTION

### 2019: Florida Power & Light to Install 1,000 Charging Stations

Florida Power & Light plans to install [1,000 electric-charging stations](#) at 100 locations across the state. FP&L is expected to request regulatory approval from the Public Service Commission in 2021. The company's chargers will be universal, compatible with all electric cars.

### 2018: Publicly Funded EV Charging Stations Expected to More than Double

The North Florida Transportation Planning Organization has rolled out [Phase 2](#) of its plan to increase the number of charging stations for drivers of electric vehicles across the First Coast. About \$450,000 in federal funds will be used to build about 30 charging locations in Clay, Nassau and St. Johns counties.

### 2019: VW Settlement Pays for EV-Charging on Florida Turnpike

Charging stations for EVs will be available or under construction at all Florida Turnpike service plazas by the end of 2019, with similar infrastructure along other highways. The state [received \\$166 million](#) of the \$14.7 billion VW settlement.

## Plug-In Electric Vehicle (PEV) Rebate – Orlando Utilities Commission



**Applies to:** Plug-In Electric Vehicles



**Rebate Amount:** \$200



**Effective:** 2018



**Category:** Rebate

Orlando Utilities Commission (OUC) provides [rebates](#) of \$200 to residential customers who purchase or lease an eligible new or preowned PEV. Applicants must apply within six months of the purchase or lease of the PEV.

## Plug-in Electric Vehicle Rebate – Jacksonville Electric Authority



**Applies to:** Plug-In Electric Vehicles



**Rebate Amount:** \$500 or \$1,000



**Effective:** 2014



**Category:** Rebate

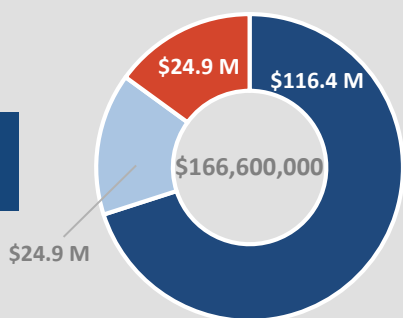
Jacksonville Electric Authority (JEA) offers [rebates](#) for the purchase or lease of new PEVs. PEVs with a battery less than 15 kilowatt-hours (kWh) in capacity receive \$500, and PEVs with larger battery capacity are eligible for \$1,000. A copy of a valid Florida vehicle registration, proof of sale, and a recent JEA Electric bill are required.

## EV IN ACTION

### 2019: LYNX Electric Bus Initiative

LYNX has received a [federal grant](#) to support purchase or lease of zero-emission and low-emission transit buses. Support from the Center for Transportation and the Environment (CTE), the City of Orlando, the Orlando Utilities Commission (OUC-The Reliable One) and bus manufacturer Proterra, Inc. was instrumental to the grant application's success.

### Volkswagen Settlement



- Bus Replacement Initiative
- EV Charging Infrastructure
- Diesel Emissions Reduction Act (DERA) State Grant Program

# Georgia

## HOV and HOT Lane Exemption



**Applies to:** Alternative Fuel Vehicles



**Fees:** AFV Specialty Tag



**Effective through:** September 2025



**Category:** HOV Exemption

Alternative fuel vehicles (AFVs) displaying the proper alternative fuel license plate may use [HOV and HOT lanes](#), regardless of the number of passengers. Qualified AFVs may also use the HOT lanes toll-free. AFVs include plug-in electric vehicles and bi-fuel or dual-fuel vehicles that operate on natural gas or propane. Applicants must provide proof they have paid registration fees in full before receiving the license plate. This exemption expires September 30, 2025.

## Electric Vehicle Supply Equipment Rebate – Georgia Power



**Applies to:** Electric Vehicle Supply Equipment



**Rebate Amount:** \$250, \$500, or \$100



**Effective through:** Dec 2019



**Category:** Rebate

Georgia Power offers a [rebate](#) to residential customers, businesses, and builders who install Level 2 EVSE. Customers are eligible for a \$250, \$500, and \$100 rebate, respectively, for each dedicated circuit installed through December 31, 2019.

## Electric Vehicle Supply Equipment (EVSE) Tax Credit



**Applies to:** Electric Vehicle Supply Equipment



**Credit Amount:** 10% of the cost of the EVSE



**Expiration:** None



**Category:** Tax Credit

An eligible business enterprise may claim an [income tax credit](#) for the purchase or lease of qualified EVSE provided that the EVSE is located in the state and accessible to the public. The tax credit is for 10% of the cost of the EVSE, up to \$2,500.

## EV IN ACTION

### 2019: Bill Introduced To Reinstate Georgia EV Tax Credit

Georgia State Representative Todd Jones (R – South Forsyth) introduced [HB 732](#), which would reinstate the state's tax credit for electric vehicles. If the bill is made law, the tax credit would be \$2,500 for new electric vehicles, plug-in hybrids and zero-emission vehicles. The state of Georgia had an EV tax credit of \$5,000, but it was repealed in 2015.

### 2019: Savannah Adds EVs to Fleet

Savannah added two [new electric vehicles](#) to its fleet. Adding electric vehicles to the city's fleet is in accord with the Savannah Forward strategic plan that calls for 15% of the city's vehicle fleet to be powered by alternate fuels or hybrid technology by 2023.

### 2018: Korean Battery Factory Under Construction in Jackson County

Korean company, [SK innovation](#), develops and manufactures lithium-ion batteries for hybrid electric vehicles is investing \$1.67 billion in a new factory. SK Innovation's batteries are expected to be sold to Mercedes-Benz, Hyundai-Kia Motors, and Volkswagen.

## Plug-In Electric Vehicle Charging Rate Incentive – Georgia Power



**Applies to:** Electric Vehicle Supply Equipment



**Effective:** 2016



**Rate:** \$0.01/kWh super off-peak, \$0.07/kWh off-peak, \$0.20/kWh on-peak



**Category:** Rate Incentive

Georgia Power offers a [EV time-of-use electricity rate](#) for residential customers who own a EV. This rate offers lower prices from 11 p.m. – 7 a.m. to encourage nighttime EV charging. The rate is optional and does not require a separate meter.

## NiteFlex Charging Rate Incentive – Cobb EMC



**Applies to:** Electric Vehicle Supply Equipment



**Effective:** 2019



**Rate:** \$0.00/kWh super off-peak, \$0.07/kWh off-peak, \$0.13/kWh on-peak



**Category:** Rate Incentive

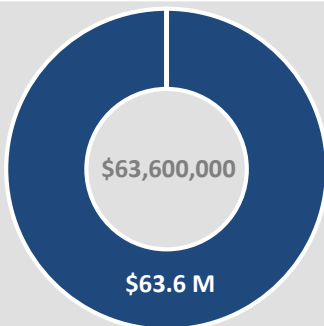
Cobb EMC offers a EV time-of-use electricity rate called [NiteFlex](#) for residential customers who own a EV. This rate offers free charging (up to 400 kWh) from 12 a.m. – 6 a.m. to encourage nighttime EV charging.

## EV IN ACTION

### 2019: Walton EMC Installs More Charging Stations

[Walton EMC](#) continues to lead the charge in providing public charging stations in areas across northern Georgia.

**Volkswagen Settlement**



■ Bus Replacement Initiative

# Tennessee

## Drive Electric Tennessee Roadmap



**Goal:** 200,000 EVs in TN by 2028



**Timeframe:** 10 years

[Drive Electric Tennessee](#), a statewide electric vehicle (EV) consortium, hopes to make the Tennessee Valley a leader in EV transportation in the Southeast over the next decade.

The Roadmap offers guiding principles, goals, opportunity areas, and approaches to get more EVs on the road during the next 10 years. According to the report, Drive Electric Tennessee aspires to significantly increase EV adoption from less than 5,000 EVs in 2017 to 200,000 by 2028.

## Tennessee Department of Environment and Conservation Grants & Programs



**Annual Emissions Reduced:**  
74,134 tons of CO2



**Amount:** Varies



**Began:** 2004



**Category:** Incentives

The Tennessee Department of Environment and Conservation exists to enhance quality of life for citizens and to be stewards of the natural environment. They offer a series of [grants and programs](#) that support other entities that are pursuing these goals. Some examples include funds from the Volkswagen Diesel Settlement and the Vehicle Inspection Program.

## EV IN ACTION

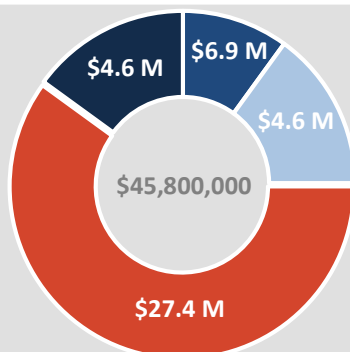
### 2019: Volkswagen Breaks Ground on Tennessee Electric Car Factory

VW will soon break ground on a [factory expansion](#) in Chattanooga with capacity of approximately 240,000 units per year. This expansion will enable the production of the VW ID.4, a compact SUV that's 100% battery electric, by the middle of 2022.

### 2019: SmartCharge Nashville to Help Prepare Middle Tennessee for Growing Power Demand from EVs

The Tennessee Valley Authority with Middle Tennessee Electric Membership Corporation, FleetCarma and Nashville Electric Service launched [SmartCharge Nashville](#) on Sept. 12. This project is a voluntary study in and around the Nashville area to understand how the city can prepare for a growing number of electric vehicles.

### Volkswagen Settlement



- Class 8 Local Freight Truck and Port Drayage Trucks
- Class 4-7 Freight Truck Electrification
- School Bus, Shuttle Bus, Transit Bus Replacement
- Light Duty ZEV Supply Equipment

# South Carolina

## AFV Revolving Loan Program for Private Entities



**Applies to:** Businesses and industries



**Loan Amount:** \$50,000 - \$1 million



**Enacted:** 1992



**Category:** Loan

The South Carolina Business Development Corporation provides [low interest loans](#) for a variety of energy efficiency improvements, including AFV conversions and incremental costs, with qualified project payback periods. Eligible recipients include businesses and industries; utilities, and non-profit organizations. Government entities may be eligible under special conditions. The loan may cover up to 100% of the project costs ranging from \$50,000 to \$1 million and must be repaid after one and one half times the projected payback period of the loan.

## AFV Revolving Loan Program for Public Entities



**Applies to:** Public entities (governments, agencies, etc.)



**Loan Amount:** \$25,000 - \$500,000



**Began:** 1992



**Category:** Loan

The South Carolina Energy Office (SCEO) provides [low interest loans](#) for a variety of energy efficiency improvements, including AFV conversions and incremental costs, with qualified project payback periods. Eligible recipients include state agencies, local governments, public colleges and universities, school districts, and private non-profit organizations. Private non-profit organizations and local government entities may be eligible for loans of up to 100% of eligible project costs ranging from \$25,000 to \$500,000 per state fiscal year. For state agencies and public educational institutions, SCEO will provide 70% of each project's funding as a loan and entities may also be eligible for ConserFund Plus grant of up to 30% project cost.

## EV IN ACTION

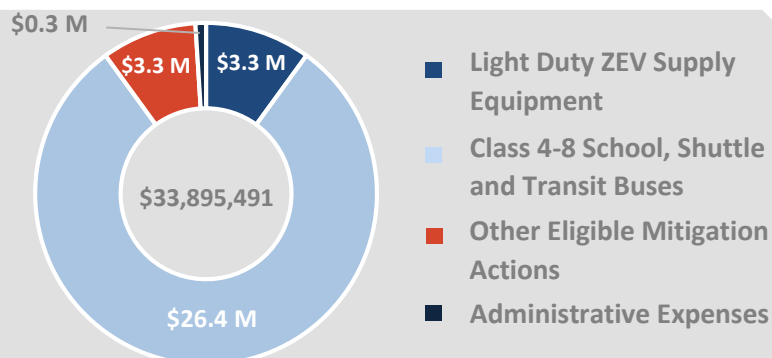
### 2019: Electrify America Charging Station Deployment in SC

In July 2019, [Electrify America](#) opened its fifth charging station in South Carolina, further expanding its nationwide network of ultra-fast electric vehicle charging stations.

### 2018: Palmetto Clean Fuels Coalition Standardized Signage for EV Charging

The Palmetto Clean Fuels (PCF) coalition launched the [Plug in SC campaign](#) on April 24, 2018. As part of this event, a ribbon-cutting ceremony unveiled standardized signage and pavement markings for Electric Vehicle (EV) charging stations in South Carolina. Shealy Electrical Wholesalers owns an EV station that is available to the public and is the first to implement this complete set of Plug in SC signage. PCF, through its Plug in SC campaign, hopes to replicate this signage at EV charging stations throughout the state.

### Volkswagen Settlement



# North Carolina

## Electric Vehicle Supply Equipment Rebate - Cape Hatteras Electric Cooperative (CHEC)



**Applies to:** Electric Vehicle Supply Equipment



**Rebate Amount:** \$100



**Enacted:** 2018



**Category:** Rebate

Cape Hatteras Electric Co-Op (CHEC) offers a [bill credit](#) of \$100 to residential customers who install a Level 2 EVSE.

## EVSE Rebate and Charging Rate Reduction - Randolph Electric Membership Corporation (EMC)



**Applies to:** Electric Vehicle Supply Equipment



**Rebate Amount:** \$500



**Began:**



**Category:** Rebate

Randolph EMC's Electric Vehicle Utility Program (REVUP) offers [rebates](#) for residential customers of \$500 towards the purchase of residential Level 2 electric vehicle supply equipment (EVSE). To qualify, residents must be a registered owner of an electric vehicle (EV), purchase and install a Wi-Fi connected Level 2 EVSE, and agree to share the data collected by the EVSE. Rebates are available to the first 25 applicants. REVUP also offers residents an EV time-of-use (TOU) rate.

## Plug-In Electric Vehicle (PEV) Charging Rate - Cape Hatteras Electric Cooperative (CHEC)



**Applies to:** PEV Owners



**Charging Rate:** \$0.078/kWh off-peak



**Enacted:** 2018



**Category:** Charging Rate

Cape Hatteras Electric Co-Op (CHEC) offers [time-of-use \(TOU\) electricity rates](#) to residential customers with a PEV.

## EV IN ACTION

### 2019: Duke Energy Proposes \$76 Million for Electric Vehicle Infrastructure in North Carolina

Duke Energy asks North Carolina regulators to approve a \$76 million dollar 3 year [pilot](#) for EV infrastructure buildout. This would be the largest EV infrastructure pilot, by far, in the Southeast.

### 2019: \$300,000 in Grants From Duke Energy Will Aid Triangle To Transition To More Electric Buses

A pair of [grants](#) totaling \$300,000 from Duke Energy Corp. will help two transit agencies in the Triangle area fund electric bus-charging stations that are being incorporated into their fleets. Grants were awarded to:

- GoRaleigh – \$200,000 to help offset the cost of installing five electric bus-charging stations.
- GoTriangle – \$100,000 to help offset the cost of installing two charging stations for two electric buses expected to arrive by the end of the year.



## HOV Lane Exemption



**Applies to:** PEVs, Natural gas Vehicles, Fuel Cell EVs



**Fees:** None



**Expires:** 2025



**Category:** HOV Exemption

Qualified plug in EVs, dedicated natural gas vehicles and fuel cell electric vehicles may use [NC HOV lanes](#) regardless of number of passengers.

## PlugIn NC Educational Resources



**Applies to:** Anyone interested in EVs



**Fees:** None



**Began:** 2011



**Category:** Education Tools

[PlugIn North Carolina](#) offers a wide range of educational materials to assist others in learning about electric vehicles and charging stations. Information is open to all, and membership is free. Members can be businesses, schools, communities, and organizations located in North Carolina that have installed Level 2 or DC Fast Charge charging stations, purchased electric fleet vehicles or are working through education and outreach to promote driving electric.

## EV IN ACTION

### 2019: Electric Cooperatives Planning to Build Rural EV Charging Stations

The [N.C. Electric Cooperatives](#) announced they will install 21 electric car charging stations in rural areas at a cost of \$1 million. Ten of them will be DC Fast charges capable of recharging a depleted battery to 80 percent within 30 minutes. The other 11 will be Level 2 chargers which charge more slowly, but still provide 10 to 20 miles' worth of battery power per hour.

### Volkswagen Settlement

