



Are Electric Vehicles Right for Your Organization?

An overview of considerations when evaluating EVs for your organization

Palmetto Clean Fuels Coalition & South Carolina Energy Office
South Carolina Office of Regulatory Staff
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Background

State Energy Office



The South Carolina Energy Office, (the Energy Office) an office that transferred to the South Carolina Office of Regulatory Staff in July of 2015, advances South Carolina’s energy strategy and policy through education and outreach.

The Energy Office promotes the efficient use of all energy sources. In addition, the Energy Office encourages energy efficiency, renewable energy, and clean transportation through a broad range of initiatives that include:

- Developing the State Energy Plan
- Providing Technical Assistance
- Offering Financial Assistance
- Conducting Education and Outreach
- Maintaining an Energy Data Resource

Palmetto Clean Fuels – South Carolina’s Clean Cities Coalition

The Palmetto Clean Fuels Coalition (PCF) is an initiative of the Energy Office. PCF works to increase the use of alternative fuels and advanced vehicle technologies in South Carolina. The US Department of Energy (DOE) approved the application for PCF's designation in 2003, recognizing the commitment of our stakeholders to building an alternative fuels market in South Carolina as a statewide coalition in 2004. Since then, PCF has been part of the Clean Cities program, a network of nearly 100 designated coalitions across the United States.

PCF strives to help public and private entities, as well as individuals, lower fuel costs, improve air quality, and reduce petroleum consumption. PCF also promotes vehicle idle reduction, fuel economy improvements, vehicle miles traveled reductions, and bicycle and pedestrian efforts.

To learn more about Palmetto Clean Fuels and its initiatives visit PalmettoCleanFuels.org.

Considerations When Evaluating EVs for your Organization

1. Assess the fleet

Which vehicles are the major “gas-guzzlers”? Which vehicles might be prime candidates for replacing with an EV?

Palmetto Clean Fuels is able to conduct an [Alternative Fuel Life-Cycle Environmental and Economic Transportation \(AFLEET\)](#) assessment to answer these baseline questions and more. By entering fleet data (number of vehicles, vehicle make and model, fuel type, gallons of fuel used, annual mileage, and purchase price), AFLEET is able to model current fleet petroleum use, emissions, total cost of ownership, and payback or return on investment and compare that to an alternatively fueled fleet. AFLEET simplifies the difficult task of estimating the environmental and economic impacts of conventional and alternative fuel vehicles. Fleets can [contact PCF](#) for a free fleet assessment.

2. Choose the right vehicles

As with any vehicle, EVs are not necessarily the right fit for every job within a department. It is important to understand the performance characteristics, strengths, and limitations of EVs when considering alternatives for each vehicle use.

What geographic area does the fleet operate in?

For city and regional fleets, EVs can be a good fit due to the high efficiency and low costs to operate within the battery range. A good first step is to take a look at the fleet’s driving patterns and history. What is the average trip and roundtrip mileage? There are EVs on the market today with more than 400 miles in range, that can traverse South Carolina with no problem. Batteries and extended ranges have significantly increased in recent years, and the charging infrastructure has expanded, as well, making EVs a good option.

Are there already existing charging stations nearby?

Fleets may not have to install infrastructure depending on what resources are already present. Check out the [Alternative Fuels Data Center’s Station Locator](#) to find charging stations that are near the fleet’s location. PCF can work with fleets and help to evaluate what infrastructure is optimal.

What performance characteristics are most important?

Factors such as towing capacity, vehicle weight, cargo space, and horsepower play a large role in vehicle selection. Fleets that use vehicles for home/site visits, personnel transport, and similar tasks are well suited to switch to light-duty EVs with city and regional drive cycles. Medium- and heavy-duty EVs will be better suited to perform larger jobs within departments such as parks and grounds or waste collection, as they have bigger batteries and even higher torque profiles than light-duty EVs.

For a list of currently available EVs on the market, visit the EPA’s [FuelEconomy.gov](#). PCF can help determine the proper EV for a fleet’s needs.

3. Take advantage of funding opportunities

A number of incentives and funding opportunities exist that state agencies can use to assist in funding an EV or charging infrastructure. For a listing of all available funding opportunities, [use the Energy Saver Tool](#) and search for the “Transportation” category.

Federal agencies such as the US Department of Energy, US Environmental Protection Agency, and US Department of Transportation will occasionally release funding opportunities. Fleets should sign up for [PCF’s Hubcap newsletter](#) to be alerted about these opportunities and [contact PCF staff](#) for assistance in applying.

Utilities are crucial when properly planning for EV infrastructure and fleet transitions. Some utility providers will provide incentives or rebates for EV purchases and EV infrastructure installation. Fleets should contact their utility to begin discussions and see what options may be available.