2024 SC Electric Vehicle Stakeholder Initiative



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South Carolina Office of Regulatory Staff Energy Office 2024



Executive Summary

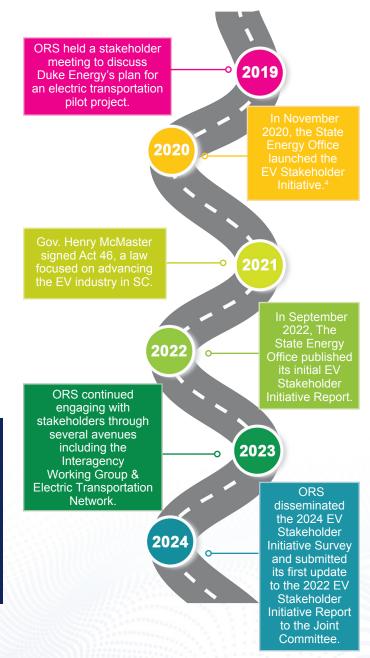
On May 17, 2021, Governor Henry McMaster signed Act 46 into law. Act 46 Section 58-27-270 (A) required the S.C. Office of Regulatory Staff (ORS) to "complete a stakeholder process to facilitate a broad, collaborative statewide discussion among stakeholders to explore the opportunities to advance electrification of the transportation sector along with identifying challenges associated with the advancement of electrification of the transportation sector."¹

Further, under Act 46 Section 58-27-270 (D), ORS "shall make initial recommendations to the Joint [Legislative] Committee [on the Electrification of Transportation] no earlier than July 1, 2022" and "shall convene additional stakeholder initiatives and report recommendations to the Joint Committee at least every two years thereafter."^{2,3} The State Energy Office within ORS (State Energy Office) published its initial Electric Vehicle Stakeholder Initiative Report in September 2022.

The State Energy Office continued this stakeholder process through the initiation of the 2024 Electric Vehicle Stakeholder Initiative Survey. Additional recommendations pertaining to the advancement of the electrification of the transportation sector in South Carolina were derived from the responses to the survey and are summarized in this report.

PURPOSE & GOAL

The South Carolina Electric Vehicle Stakeholder Initiative (EV Stakeholder Initiative) is an ongoing, collaborative, statewide discussion to explore opportunities to advance electric vehicle (EV) deployment in South Carolina, with the goal of developing policy and programmatic recommendations. Figure 1. Background



1 https://www.scstatehouse.gov/sess124_2021-2022/bills/304.htm

- 2 https://www.scstatehouse.gov/sess124_2021-2022/bills/304.htm
- 3 https://www.scstatehouse.gov/sess124_2021-2022/bills/304.htm

⁴ https://energy.sc.gov/focus-area/clean-transportation/electric-vehicles/electric-vehicle-stakeholder-initiative

2024 EV STAKEHOLDER INITIATIVE SURVEY RESULTS

The 2024 EV Stakeholder Initiative Survey was distributed to a wide array of individuals and organizations throughout South Carolina interested in transportation, including everyone involved in the initial stakeholder process. The survey asked several questions about stakeholders' opinions on the challenges and opportunities related to the electrification of transportation in South Carolina since September 2022. The State Energy Office received 43 responses from individuals representing a wide range of backgrounds including government, non-profit, electric utility, EV manufacturer/supply chain, fleet, technical college/university, and consulting, as well as EV owners themselves. While all 27 recommendations from the initial 2022 report are still valid, the respondents to the 2024 survey emphasized the importance of the following themes:

- *Provide financial incentives to spur EV adoption.*
- Invest in EV workforce training and development.
- Partner with utilities to enhance grid capacity and resilience.
- Provide resources to enhance public EV awareness and understanding.
- Increase the number of publicly available chargers.
- Establish additional EV service/maintenance centers.
- Increase availability of EVs for purchase in SC.
- Create laws/policies/resources which encourage EV/EV charger planning, siting, purchase, and use.



Ongoing State Energy Office Efforts

Since releasing the 2022 Electric Vehicle Stakeholder Initiative Report, the State Energy Office has continued to engage in a variety of efforts to encourage the electrification of transportation in South Carolina.

- EV Awareness Campaign Recommendation #3 from the 2022 EV Stakeholder Initiative Report suggested that South Carolina develop and fund a brand-agnostic awareness campaign to increase EV awareness and adoption. The State Energy Office is currently engaged in the procurement process for a contractor to assist with this effort.
- Palmetto Clean Fuels The Energy Office manages Palmetto Clean Fuels (PCF), a United States Department of Energy (USDOE) Clean Cities coalition focused on promoting alternative fuels and clean transportation. PCF conducted the following activities since September 2022:
 - o Engaged with 526 EV stakeholders around EVrelated topics.
 - o Conducted 10 fleet analyses
 - Submitted 55 EV charging sites to the USDOE Alternative Fuel Data Center (AFDC) Station Locator.
 - o Distributed *The Hubcap*, a clean transportationfocused newsletter, to over 1,300 subscribers each month.

- o Hosted 6 EV-focused educational events:
 - Alternative Fuel Vehicle Showcase (2022)
 - Three (3) Electric Bus, Battery, and Safety Trainings (2023)
 - Electric Vehicle Workforce Lunch and Learn (2023)
 - Alternative Fuel Vehicle First Responder Training (2024)
- PLUGinSC Incentive Program The PLUGinSC Incentive Program enables qualifying participants to obtain standardized EV signage so that charging stations are easily identifiable. Since September 2022, signage was distributed to 11 entities.

Ongoing Partner Efforts

- Executive order 2022-31 On October 12, 2022, Governor Henry McMaster signed Executive Order 2022-31 which stated that South Carolina has significant interests in recognizing and advancing innovative strategies to support the EV industry, facilitating and encouraging further investment and economic development in this critical sector, and enhancing the availability and reliability of EV-related infrastructure to account for existing and anticipated needs and to accommodate additional commercial activity.⁵ This order tasked several state agencies, including ORS, with specific responsibilities related to the advancement of the EV industry in South Carolina.
- **Governor McMaster's Electric Vehicle Summit** On October 13, 2022, Governor Henry McMaster hosted a summit focused on accelerating South Carolina's transition to EVs, bolstering its EV workforce, and encouraging EV-focused industry to establish a presence in the state. ORS, including State Energy Office staff, was in attendance.⁶
- Interagency EV Working Group Executive Order 2022-31 directed the South Carolina Department of Transportation (SCDOT) to establish an Interagency EV Working Group tasked with developing a comprehensive plan regarding the strategic deployment of EV-related resources and infrastructure in South Carolina. The result was the South Carolina Electric Vehicle Charging Infrastructure Deployment Plan.⁷ State Energy Office staff have participated in all 11 Working Group meetings hosted since September 2022.
- National Drive Electric Week National Drive Electric Week is a nationwide event dedicated to raising awareness
 of the many benefits of all-electric and plug-in hybrid vehicles. The State Energy Office has sponsored and/or
 participated in several events hosted by local chapters:
 - o Drive Electric Columbia (2022)
 - o Drive Electric Columbia (2023)
 - o Drive Electric Columbia (2024)

- o Drive Electric Charleston (2023)
- o EVs for Earth Day Columbia (2023)
- o EVs for Earth Day Columbia (2024)
- SC Powers EV Executive Order 2022-31 directed the South Carolina Department of Commerce to establish an
 informational webpage to serve as a resource repository to prioritize and enhance ongoing electric vehicle economic
 development and recruitment efforts. The result was SC Powers EV.⁸
- SC+EV Initiative SCDOT received nearly \$70 million from The United States Department of Transportation (USDOT) Federal Highway Administration (FHWA) under the National Electric Vehicle Infrastructure (NEVI) Formula Program to build out electric vehicle charging stations along South Carolina's Alternative Fuel Corridors (AFCs). The SC+EV Initiative was established in support of the NEVI Formula Program to foster the creation of a reliable and accessible statewide network of EV charging infrastructure.⁹
- SCDEW EV Workforce Study Executive Order 2022-31 directed the South Carolina Department of Employment and workforce (SCDEW) to conduct a supply-gap analysis of the EV ecosystem and report statutory and regulatory recommendations to facilitate new business and industry investment in the EV sector in South Carolina. The result was the Evaluation and Analysis of the Electric Vehicle Workforce in South Carolina report.¹⁰

9 https://www.southcarolina-ev.com/about

⁵ https://governor.sc.gov/sites/governor/files/Documents/Executive-Orders/2022-10-12%20FINAL%20Executive%20Order%20No.%202022-31%20-%20Establishing%20 Electric%20Vehicle%20Initiatives%20%26%20Interagency%20Working%20Group.pdf

⁶ https://scpowersev.com/state-support 7 https://www.scdot.org/projects/NEV/%20Eormula-Program.aspx

⁷ https://www.scdot.org/projects/NEVI%20Formula-Program.aspx

⁸ https://scpowersev.com/

¹⁰ https://dew.sc.gov/sites/dew/files/Documents/Final_Evaluation%20and%20Analysis%20of%20the%20Electric%20Vehicle%20Workforce%20in%20South%20Carolina%20 Report.pdf

- South Carolina Electric Transportation Network The South Carolina Electric Transportation Network (SCET Network) was established in May 2022 by a group of stakeholders who participated in the State Energy Office's EV Stakeholder Initiative. The purpose of this body is to share information and continue fostering collaboration to equitably grow and guide electric transportation opportunities in South Carolina.¹¹ State Energy Office staff have participated in all 21 Network meetings since September 2022.
- State Parks EV Charging Stations As a result of collaborative matchmaking efforts of the State Energy Office, it was announced in December 2022 that the electric vehicle maker and automotive technology company Rivian would install and maintain over two dozen electric vehicle chargers in state parks across South Carolina. Through their community charging initiative, Rivian will cover the cost of equipment, installation, and maintenance for 10 years.

EV-related Data and Trends

This section provides a snapshot of EV and EVSE development in South Carolina in terms of manufacturing employment, manufacturing investment, sales, and charging. For the purposes of these graphics, the Southeast region includes Alabama, Florida, Georgia, North Carolina, South Carolina, and Tennessee. While this Report offers an overview of the available information to date, it is not an exhaustive summary.

Figure 2. SC Electric Transportation Indicators



MANUFACTURING EMPLOYMENT #4 in region

Anticipated jobs: 11,28117% annual growth





#5 in region in market share #38 in nation in market share

- Cumulative sales: 24,300
- 52% annual growth
- Q4 2023 EV market share: 4.1%



UTILITY INVESTMENT

Approved: \$8.8 million
No annual growth

MANUFACTURING INVESTMENT #4 in region



and the

- Investment: \$13.2 billion
- 22% annual growth





#5 in region per capita#31 in nation per capita

- Fast Chargers: 507 ports
- Level 2 Ports: 937 ports
- 33% annual growth in total ports

PUBLIC FUNDING

#1 in region per capita



- Approved: \$228 million
- Public funding per capita: \$45.39

All measures include light-duty and medium- and heavy-duty electric vehicles (EVs), except for sales, which refers exclusively to new passenger EVs. EVs include both battery EVs and plug-in hybrid EVs. *Manufacturing Employment* and *Manufacturing Investment* refers to announced investments in EV assembly, EV parts, EV charging infrastructire, batteries, mineral processing and separation, and battery recycling facilities. *Charging* deployment is for publicly accessible chargers, and rankings and growth include Level 2 and fast chargers. *Utility investment* refers to investor-owned utilities only. *Public funding* includes both awarded and allocated funds. Totals are cumulative unless stated. Rankings are for all time, except for market share which is taken for the past 12 months. Sales data is through December 31, 2023, while manufacturing employment, utility investment, manufacturing investment, charging, and public funding data is through June 30, 2024. Source: <u>Atlas Public Policy</u> courtesy of the <u>Southern Alliance for Clean Energy</u>.

CONCLUSION

This report describes the history of the EV Stakeholder Initiative, documents significant EVrelated activities in South Carolina since 2022, and offers actionable recommendations for future EV development in the state. The recommendations reflect the input of voluntary stakeholders, but not every recommendation reflects consensus.

The purpose of this report is to inform future State Energy Office initiatives as part of the State Energy Plan and in accordance with the charge under Act 46 for the Office of Regulatory Staff to convene additional stakeholder initiatives and report recommendations to the Joint Committee every two years.

A fair, efficient, and cost-effective transition to electrification requires the concerted efforts of state and local leaders, public entities, private industry, and the greater population as a whole.

SIEMENS

ELECTRIC VEHICLE CHARGING STATION

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ENERGY 🛞 OFFICE

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South Carolina

State Parks

Veefil

50kW

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