

South Carolina Energy Office Update

2024 Tri-Association Conference

March 12, 2024

ENERGY

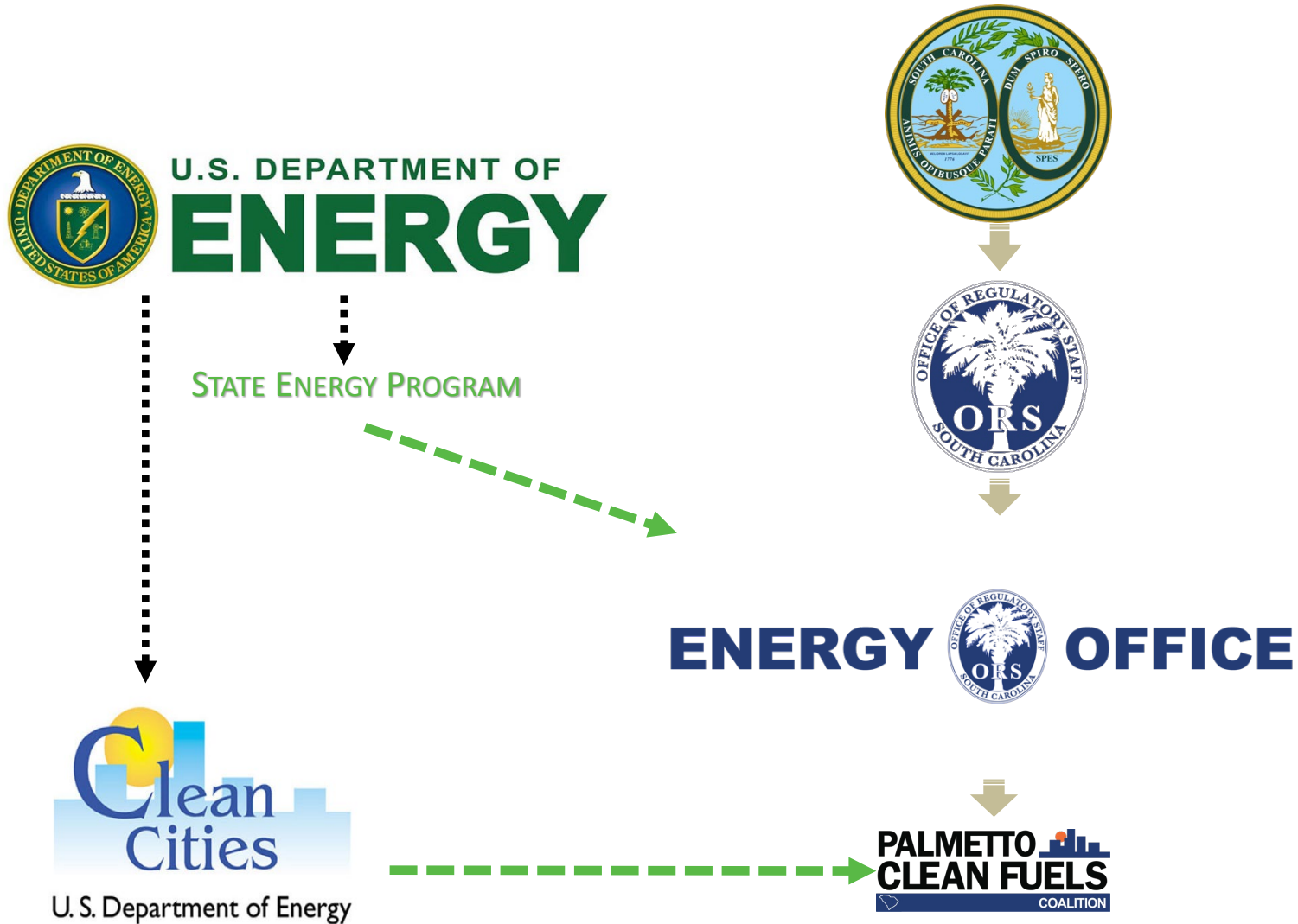


OFFICE

Our Mission

The mission of the South Carolina Energy Office is to advance South Carolina's energy strategy and policy by encouraging energy efficiency, renewable energy, and clean transportation through education and outreach.

Our Structure



State Energy Planning
Maximizes:

- ✓ Environmental quality,
- ✓ Energy conservation &
- ✓ Energy efficiency,

AND

Minimizes:

- ✓ **Cost of energy throughout the State**

SC Code §48-52-210

THE TEAM



Sara Bazemore
Director



Stacey Washington
Deputy Director



Rick Campana
Technical Program
Manager



Richelle Tolton
Energy Program
Manager



Rene Kelly
Clean Transportation
Coordinator



Michael Garner
Energy Data Specialist



Chenille Williams
Energy Specialist



Sam Christmus
Sr. Energy Specialist



Gretchen Pool
Program Coordinator



Kayla Nelums
Energy Specialist

Branner Umberger
High School Intern

Katie Jauch
PCF Intern

FEDERAL FUNDING

Federal Funding – *Received*

➤ State Energy Program (SEP)



- State Energy Plan
- Home Labeling/Scorecard
- Expand Funding Programs
 - **Solar Grant**
- EV Stakeholder Next Steps
- Education/Outreach
- Expanded Training
- Clean Energy Demonstration Projects for Resilience
 - Transmission & Distribution Planning
- Staffing & Resources

Federal Funding – *Received*

Energy Efficiency and Conservation Block Grant (EECBG)

Opening
Soon!

March 18, 2024 - April 15, 2024

EECBG

\$2.1m

Funds for local governments to plan and implement energy-efficiency, renewable energy, and clean transportation projects

- \$2.1 million formula funding to SC
- >60% to Units of Local Government
 - 36 counties; >250 municipalities eligible
- \$50,000 - \$75,000 each
- Additional eligible entities include:
 - Local public authorities
 - **School districts** and Special districts
 - Council of Governments (COGs)

Federal Funding – *Forthcoming*

➤ Residential Rebate Programs

EECBG

\$2.1m

Rebate Admin \$3.4m

**Early Admin. Funds
Received!**

Inflation Reduction Act (IRA)
framework for 2 distinct, residential
rebate programs

1. HOMES (Efficiency)
 2. HEAR (Electrification)
- \$68 million per program
*Available until 2031 – but **not yet***
 - Early Administrative Funds
For state to develop its programs
 - Balance of funding to be
released in 4 tranches

IRA Rebate Programs' Differences

"HOMES"

- Rebates for homeowners & aggregators
 - Income verification
 - Increased rebates for Low to Moderate Income (LMI) households
- Modeled/Measured energy saving retrofits
- Certificates issued for rebates
- Includes \$200 rebates to contractors

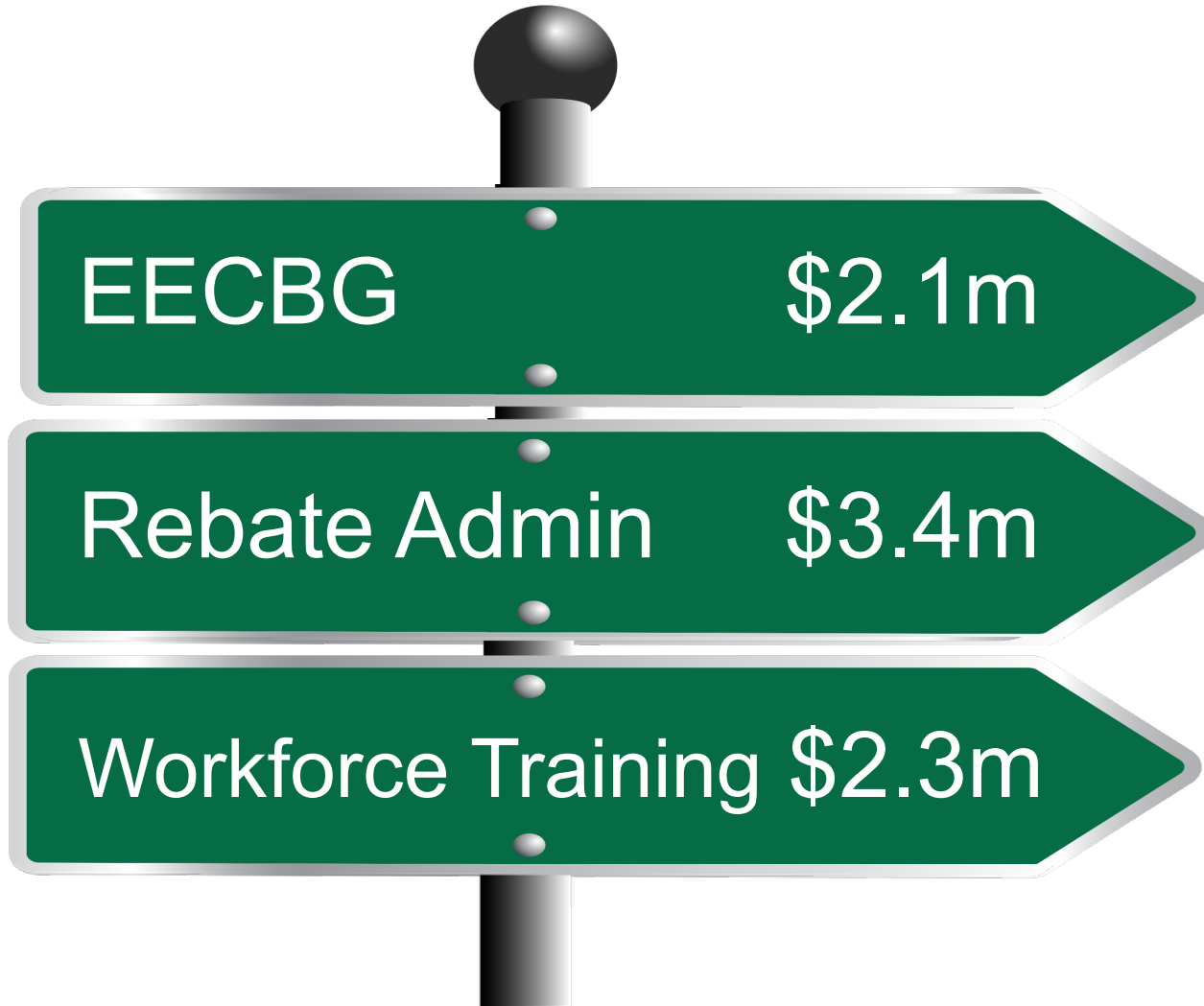
"HEAR"

- Rebates for eligible LMI entities
 - Income verification
 - Point of Sale
- Appliances & nonappliances
- \$14,000 Maximum per household



Federal Funding – *Application submitted*

➤ *Training for Residential Energy Contractors Grant (TREC)*



Elements of TREC include:

- reduce the cost of training contractor employees;
- provide testing & certification for contractors trained & educated under a State program developed and implemented by EO; and
- partner with nonprofits to develop & implement a State program.

Federal Funding – Here and on the Horizon

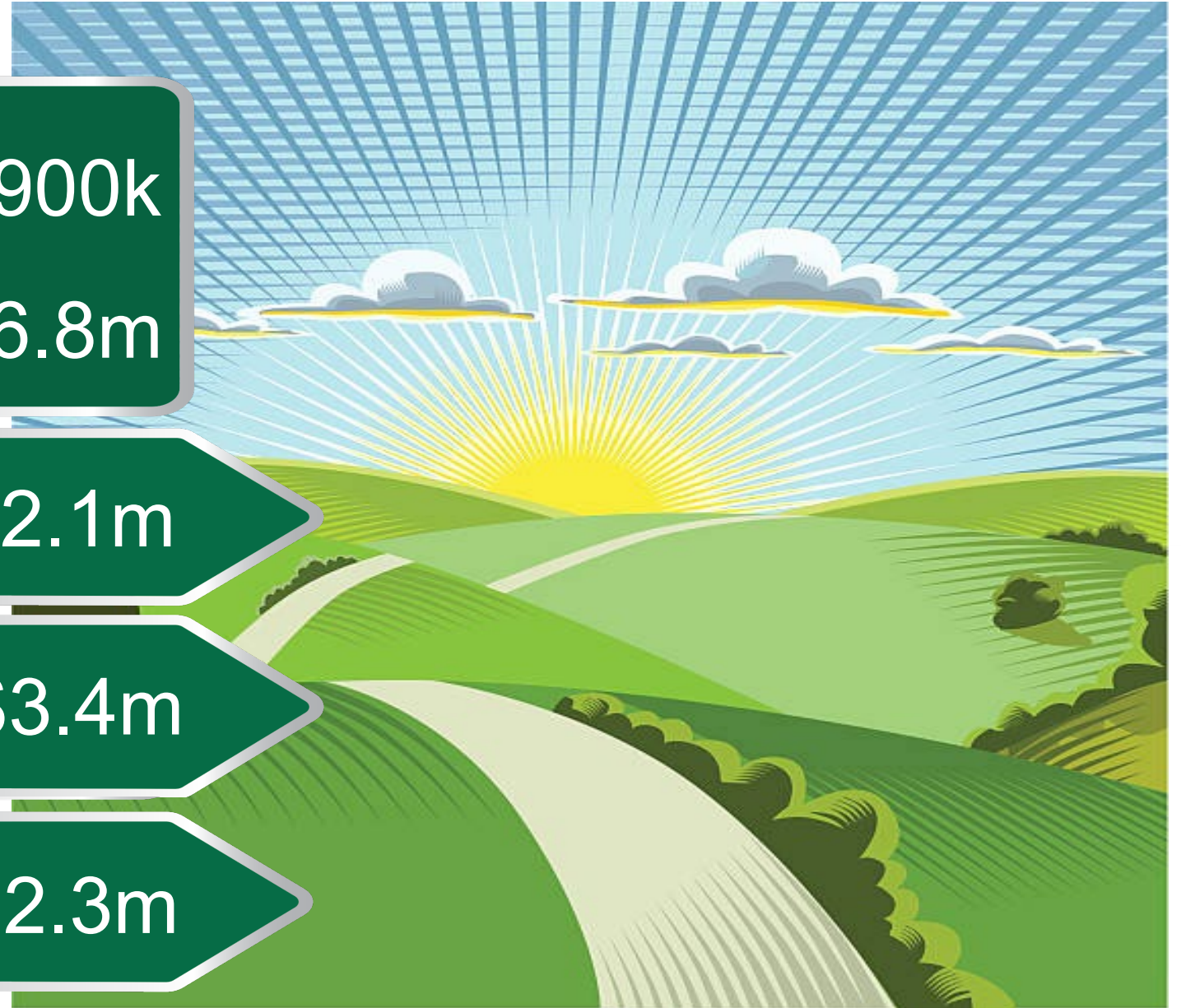
SEP (Annual) \$900k

SEP (BIL) \$6.8m

EECBG \$2.1m

Rebate Admin \$3.4m

Workforce Training \$2.3m



ADDITIONAL FUNDING OPPORTUNITIES

Energy Office Financing - Loans

ConserFund Loan

- Loans from \$25,000 up to \$500,000
- 1.5% interest rate with terms of up to 10 years
- Open to 501(c)(3) non-profits and government entities
- Payments due quarterly for non-profits and annually for government entities
- [ConserFund | Energy.SC.Gov](https://www.energy.sc.gov/conserfund)

Energy Efficiency Revolving Loan (EERL)

- Loans from \$50,000 up to \$1,000,000
- Variable interest rate with terms of up to 10 years
- Open to all commercial entities
- Administered by the South Carolina Business Development Corporation
- <https://www.businessdevelopment.org/eerl.html>



Energy Office Financing - Grants

Annual Mini-Grant Program

- Competitive Grants, typically up to \$10,000
- High-impact demonstration projects
- Open to 501(c)(3) non-profits and government entities
- Opens at start of each state fiscal year (July)
- Brief application window
- Projects awarded mini-grants must be completed and reimbursed by end of the fiscal year
- [Mini-grant Program | Energy.SC.Gov](https://www.energy.sc.gov/mini-grant-program)



Federal Funding Requirements

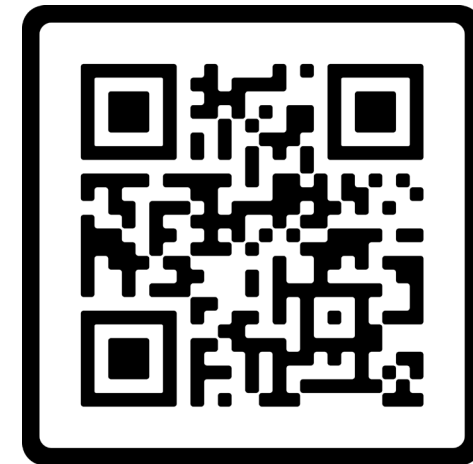
- **Buy American/ Build American**
Federal funding to use American made products
- **Davis-Bacon**
All contractors are paid prevailing wage for geographical location
- **Historic Preservation**
Buildings over 50 years old and in historical districts
- **National Environmental Policy Act (NEPA)**
Bounded categories identified; review required if not included in bounded category
- **Justice 40/ Rural focus**
40% of overall benefits flow to federally defined disadvantaged communities



WHAT ELSE ARE WE WORKING ON?

Training Opportunities

- **NEW Solar Training through Coastal Carolina University** (*Spring Semester*)
- **Spring Courses**
 - *Boiler Course (May 7-8, 2024)*
 - *BPI Course (April 8-12, 2024)*
- **Teacher Workshops for 2024** (*Dates TBD*)
- **Accredited Commercial Energy Manager** (*Late Fall*)



SC Energy Office
Education Webpage

Education and Outreach

<https://energy.sc.gov/programs/education-outreach-training/energylessons>

K-12 Lessons and Toolkit



ENERGY OFFICE

LESSON PLAN

Energy from the Sun

Grade 6

SUMMARY

In this lesson, the students will explore how solar energy is converted to thermal/heat energy.

DURATION

The activity requires one class period.

LESSON OBJECTIVES

Upon completing this lesson the students will:

- Measure the amount of solar heat that comes from the sun; and
- Describe ways this energy can be used to help reduce our dependence on traditional fossil fuels and nuclear power.

ESSENTIAL QUESTION

How much energy comes to us from the sun?

MATERIALS

This activity works well for small groups of students. For each group performing the experiment, you'll need the following items:

- 2 Styrofoam Cups
- 2 Thermometers
- Food Coloring
- Aluminum Foil
- A Measuring Cup
- A Metric Ruler
- A Watch with Second Hand
- Insulation Materials (packing foam, shredded newspaper, etc.)
- A Cardboard Box (It should be the same height as the cups. Trim the box if needed.)

2014 S.C. SCIENCE STANDARDS CORRELATIONS

Standard 6.P.3 The student will demonstrate an understanding of the properties of energy, the transfer and conservation of energy, and the relationship between energy and forces.

CONCEPTUAL UNDERSTANDING

6.P.3.A Energy manifests itself in multiple forms, such as mechanical (kinetic energy and potential energy), electrical, chemical, radiant (solar), and thermal energy. According to the principle of conservation of energy, energy cannot be created nor destroyed, but it can be transferred from one place to another and transformed between systems.

PERFORMANCE INDICATOR

6.P.3.A.5 Develop and use models to describe and compare the directional transfer of heat through convection, radiation, and conduction.

6.P.3.A.6 Design and test devices that minimize or maximize heat transfer by conduction, convection, or radiation.

SCIENCE AND ENGINEERING PRACTICE (SEP)

- Ask questions and define problems.
- Develop and use models.
- Plan and conduct investigations.
- Analyze and interpret data.
- Use mathematical and computational thinking.
- Construct explanations and design solutions.
- Engage in scientific argument from evidence.
- Obtain, evaluate, and communicate information.

CONNECTION TO CLASSROOM ACTIVITY

Students will plan and conduct investigations, analyze and interpret data, use mathematical and computational thinking, construct explanations, and design solutions using their understanding of solar energy.



Website Update



		
Solar.sc.gov	EnergySaver.sc.gov	EV Stakeholder Initiative
<p>Solar panels allow consumers to generate energy by using the sun. Solar.sc.gov details how solar works, how to choose a system, and how to</p>	<p>This website provides the full spectrum of funding opportunities for energy related improvements for your home or business.</p>	<p>The purpose of this initiative is to facilitate a broad, collaborative statewide discussion among stakeholders to explore the</p>

Workforce Development Tool

The SCEO has developed a **Clean Energy Workforce Development Tool**, designed to connect individuals and organizations with the training resources they need to adapt to the rapidly evolving clean energy field.



Clean
Energy Workforce
Development Tool

South Carolina Clean Energy Workforce Development Tool



Welcome to the South Carolina Energy Office's Clean Energy Workforce Development Tool. This tool is designed to connect individuals and organizations with the training resources they need to adapt to the rapidly-evolving clean energy field. Whether you are a student, job seeker, technical trade worker, or employer, this database may help you find information on a variety of clean energy training opportunities such as apprenticeships, certificates, degree programs, and stand-alone courses.

Explore in-person and online training opportunities in numerous clean energy subfields including Solar, Energy Efficiency, Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC-R), and more at the bottom of this page. If you would prefer to explore opportunities based on location rather than topic, please click the link below.

[Search by Location](#)

The opportunities listed in this database are South Carolina-focused and are not exhaustive, but will be updated periodically to ensure they are as accurate as possible.

If you have any questions about this tool or would like to suggest additional resources which should be added, please [email](#) the South Carolina Energy Office.

Search by Topic

Which topic interests you?

- Solar
- Heating, Ventilation, Air Conditioning, and Refrigeration
- Electrical Systems
- Electric Vehicles
- Energy Efficiency

Alternative Fuels in SC

The EV Stakeholder Initiative (EVSI)

a collaborative and diverse statewide discussion to explore opportunities to advance EV deployment in South Carolina, developing 27 policy and programmatic recommendations.

Act 46 (2021)

Joint Legislative Committee on the Electrification of Transportation as a forum for consideration of EVSI Recommendations, as well as other relevant factors supporting the equitable transition to electrification

Executive Order No. 2022-31

- ✓ SC DOT's EV Interagency Working Group
- ✓ SC Commerce, EV economic development website, *SCpowersEV.com*
- ✓ SC DEW, Workforce Gap Analysis



Alternative Fuels in SC



ENERGY  **OFFICE**

2024 SC ELECTRIC VEHICLE STAKEHOLDER INITIATIVE (EVSI) SURVEY

The South Carolina Energy Office – Office of Regulatory Staff (SCEO) published its SC Electric Vehicle Stakeholder Initiative report in September 2022, which included initial recommendations from SC’s EV stakeholders, like you. The SCEO remains committed to gather stakeholder input on this transition.

We invite you to help the SCEO gather more information about the challenges, opportunities, and ongoing efforts related to transportation electrification in South Carolina since September 2022 by completing this survey.



For more on the EVSI, please visit our webpage,
energy.sc.gov.

SC Office of Resilience Partnership

- SC Office of Resilience Collaboration
 - *Climate Pollution Reduction Grant*
 - *Solar for All*
 - *Home Energy Rebates*



Stay in Touch

- Subscribe to our newsletters to get the latest Energy Office updates!
- Visit our website, [Energy.SC.Gov](https://www.energy.sc.gov), to get more information on programs and trainings that we are currently offering.



SC Energy Office Newsletters



Kayla Nelums

Energy Specialist, SC Energy Office

South Carolina Office of Regulatory Staff

(803) 737-9848

knelums@ors.sc.gov



