

National Caucus of Environmental Legislators

Southern Climate Solutions Briefing Book



NCEL

National Caucus of
Environmental Legislators





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Introduction

The Southern United States is uniquely positioned in the climate conversation. The clean energy transition promises the region abundant economic benefits, since the South is well-suited for offshore wind and has ample opportunity for solar. Harnessing the benefits of the clean energy transition and addressing climate change is urgent, as the region is already experiencing major climate impacts, including coastal destruction, extreme heat, lengthened and worsened hurricane seasons, and more.

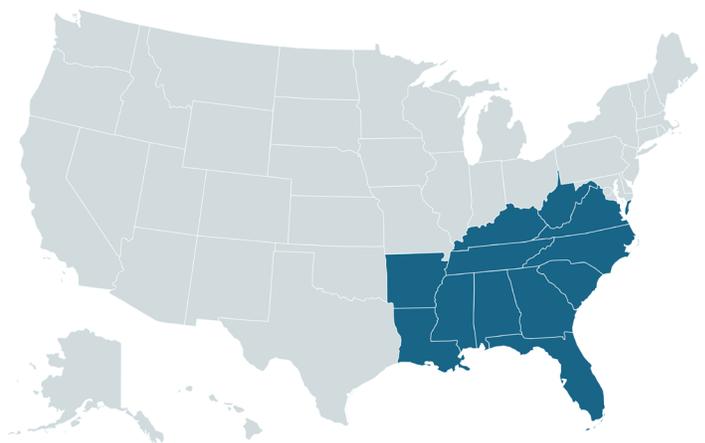
As this briefing book details, states in the South are beginning to implement laws that promote cheaper, cleaner energy and address climate change. To keep this momentum progressing, Southern states can learn from previous successes within their region and from states with similar political contexts. There is no need to reinvent the wheel when tactics have already proven effective in neighboring or similar states. **This briefing book seeks to provide a pool of successful climate and clean energy policies in states across the South and beyond for state legislators to reference as they are looking forward to next sessions.** It was developed by NCEL staff, who surveyed policies across the South and states in similar political and economic contexts for best practices and examples. We want to thank colleagues at [Climate Cabinet Education](#), [Conservation Voters of South Carolina](#), and [Green For All](#) for their feedback and recommendations as well.

Contents of this Briefing Book

We cover nature-based solutions, transportation, a just transition and workforce support, buildings, grid regionalization and utility regulation, clean energy, and adaptation and coastal resilience. Each section includes a description of the policy, sample legislation from Southern states and others, and resources. We include a detailed analysis of a key piece of omnibus legislation, the South Carolina Energy Freedom Act.

Climate Solutions for Southern States

Southern states are creating tens of thousands of new jobs in the clean energy and clean transportation sectors. Residents are seeing the co-benefits of climate action, including lower energy bills, better air quality, and a higher quality of life. Increasing extreme weather demands the most ambitious actions from all of us, but climate policy is never a one-size-fits-all solution. Solutions in the South need to cater to its specific political, economic, and cultural contexts. This briefing book provides a reference point for state legislators in the region of what's worked well so far. We hope it is just the beginning.



This briefing book is most applicable to the states in blue.





Overview

Resilience and adaptation planning has come to the forefront as a policy that tends to have bipartisan support and has been a success for the region. The South is afflicted by several climate-induced disasters including hurricanes, flooding, extreme heat, and drought. With Florida experiencing a particular increase in sea level rise affecting its coastal cities and high intensity hurricanes, a flurry of legislation establishing resilience offices, grant programs, data collection, and new building standards have passed in recent years.

Additional Resources

- **National Caucus of Environmental Legislators** - (1) [Blue Carbon Issue Page](#), (2) [Coastal Resilience Issue Page](#), and (3) [Climate Adaptation Issue Page](#)
- **Natural Resources Defense Council** - [How States Stack Up on Flood Disclosure](#)
- **Environmental Protection Agency Smart Growth** - [Regional Resilience Toolkit](#)
- **Southern Environmental Law Center** - [The Changing Coast](#): interactive map showing how rising seas and a changing climate are reshaping the Southern coast

Legislation

Indicates bipartisan sponsorship

- ****Florida H.B.7019/S.B.1954 (enacted 2021)**: Established Resilient Florida Grant Program to fund costs of community resilience planning; required the Department of Environmental Protection to develop annual Statewide Flooding & Sea Level Rise Resilience Plan; established Florida Flood Hub for Applied Research & Innovation.
- ****Florida C.S./C.S./H.B. 1049 (enacted 2024)**: Mandated that sellers of residential real property in Florida must provide prospective buyers with a flood disclosure at or before the time a sales contract is executed.
- ****Florida CS/H.B.7053 (enacted 2022)**: Established Statewide Office of Resilience and Chief Resilience Officer; required the Department of Transportation to develop resilience action plan for State Highway System; revised vulnerability assessment requirements for non coastal communities; etc.
- ****Louisiana. H.B. 612 (enacted 2022)**: Created the Louisiana Fortify Homes Program which offers grants of up to \$10,000 to eligible homeowners for new roofs built with improved techniques and materials that can stop leaks and withstand winds of up to 150 mph.
- ****South Carolina S.B.0259 (enacted 2020)**: Established the South Carolina Office of Resilience with a Chief Resilience Officer to develop a statewide resilience plan; created the Disaster Relief and Resilience Reserve Fund and Resilience Revolving Fund.
- ****Texas H.B. 531 (enacted 2021)**: Required all landlords to let prospective tenants know in writing whether their property has previously flooded or if it sits in a 100-year floodplain.
- **Virginia S.B.756 (enacted 2022)**: Created the Resilient Virginia Revolving Fund to support loans, refinance projects, or provide grants for local governments to advance resilience endeavors.



Overview

Reducing emissions from buildings has multiple co-benefits, including lower energy bills, more insulated housing, and better indoor air quality. Reduced energy bills can be particularly beneficial to low-income households, who spend [three times more of their income](#) on energy costs compared to the median spending of non-low-income households. This is particularly salient in the South, where residents are more cost-burdened than in any other part of the country, and [one out of every three people](#) in the region has trouble paying their energy bills.

Legislation

Indicates bipartisan sponsorship

- **[Kentucky S.B.70 \(enacted 2014\)](#)**: Created the Energy Efficiency Program for State Government Buildings to provide for implementation of low cost/no cost energy conservation measures, engineering analyses, energy efficiency measures, building improvements, and monitoring of results for state-owned or state-leased buildings.
- **[Kentucky H.B.33 \(enacted 2022\)](#)**: Encouraged all school districts undertaking the construction of new school building to: meet or exceed efficient school design standards, use life-cycle cost analysis to evaluate different design proposals; and consider each new school building or major renovation of a building could be a net zero building.
- **[**North Carolina S.802 \(enacted 2024\)](#)**: Created a Commercial Property Assessed Capital Expenditure (C-PACE) program to improve building resiliency and utility efficiency by allowing local governments to encourage property owners to utilize low-cost, long-term financing for energy efficiency, water conservation, and resilience projects.
- **[**Pennsylvania H.B.1421 \(enacted 2022\)](#)**: Created the Whole-Home Repairs Program to pay directly for new roofs, septic systems, and other structural repairs in order for households to qualify for energy efficiency upgrades through the Weatherization Assistance Program.
- **[**West Virginia H.B.2667 \(enacted 2021\)](#)**: Created a cost savings program for assessment and implementation of energy savings goals in state buildings; required energy-savings contracts to include provisions relating to energy cost savings guarantees and deficiency payments; established a goal to reduce all state buildings' electricity, natural gas, oil and steam energy usage by 25% below 2018 levels by 2030.

Additional Resources

- **The Greenlining Institute** - [Equitable Building Electrification: A Framework for Powering Resilient Communities](#)
- **Rocky Mountain Institute, Physicians for Social Responsibility, Mothers Out Front, Sierra Club** - [Gas Stoves: Health and Air Quality Impacts and Solutions](#)
- **National Caucus of Environmental Legislators** - [Building Decarbonization Issue Page](#)
- **Green & Healthy Homes Initiative** - [Leading with Equity and Justice in the Clean Energy Transition: Getting to the Starting Line for Residential Building Electrification](#)
- **US Green Building Council** - [Resources for State Legislators](#)



Overview

South Carolina has been the true leader in the region on regulating its utilities following the VC Summer nuclear project [failure](#). Since then, South Carolina legislators have created new regulations for its utilities through an oversight committee and mandated annual generation plans.

Despite the South being one of two main regions of the United States without a wholesale competitive market, there has been limited legislative movement to create one. Utilities have begun the process of forming the [Southeast Energy Exchange Market \(SEEM\)](#), which would allow bilateral trading between the largest utilities in the region. Legislative oversight is needed to ensure the SEEM reduces costs and spurs the adoption of renewables, rather than increasing energy burdens and isolating independent clean energy users.

Legislation

Indicates bipartisan sponsorship

- **Arizona H.B.2218 (enacted 2023):** Directed the Arizona Power Authority to encourage activities for the storage of solar energy, nuclear energy or geothermal energy; authorizes the Arizona Power Authority to operate facilities to store electric power.
- **Virginia S.B. 565 (enacted 2024):** Mandated investor-owned electric utilities develop energy efficiency programs with specific annual savings targets and a minimum allocation of 15% of program costs to low-income, elderly, disabled individuals, or veterans.
- **Montana H.B. 729 (enacted 2023):** Enabled the State's Public Utility Commission to approve cost-effectiveness criteria for Advanced Conductor projects that may be placed into a utility's ROI (Return on Investment) Rate Base.
- ****South Carolina H.3194 (enacted 2021):** Required Santee Cooper to obtain Public Service Commission approval of its Integrated Resource Plan, major facilities, and long-term Power Purchasing Agreements.
- ****Virginia H.B. 862 (enacted 2024):** Required an electric utility to include in electric distribution grid planning (i) a comprehensive assessment of the potential application of grid-enhancing technologies and advanced conductors and (ii) if applicable, a detailed explanation of why such technologies or conductors are not included in such plan.

Additional Resources

- **American Council on Renewable Energy (ACORE)** - [Energy Market Design and the Southeast United States](#)
- **National Caucus of Environmental Legislators** - [Utility Briefing Book](#), and [Transmission Briefing Book](#)
- **Southeast Energy Efficiency Alliance** - [State Guides to Utility Energy Efficiency Planning](#)
- **Southern Alliance for Clean Energy** - [Southeast Energy Exchange Market \(SEEM\): What we know, Q&A-style](#)
- **Solar United Neighbors** - [The People's Utilities Playbook](#)



Overview

The influx of the clean energy transition has the potential to bring great economic benefits to the Southern region. However, it is imperative that states take action to ensure new clean energy jobs are well-paid and protect communities at risk of losing jobs from the retirement of fossil fuel facilities. For example, West Virginia, a state severely impacted by the closing of coal mines, has made progress to ensure its coal communities are financially secure during the transition with legislation such as [H.B.4479](#) and other measures.

Legislation

Indicates bipartisan sponsorship

- **Colorado H.B.19-1314 (enacted 2019):** Created a Just Transition Office; required a utility that proposes accelerated retirement of a coal-fueled electric facility to submit a workforce transition plan at least 6 months before the retirement of the facility.
- **Montana S.B.191 (enacted 2019):** Allowed counties to establish a coal trust fund for future revenue losses, to address “the need for communities to be able to prepare for reductions in coal mining and coal-fired electric generation.”
- ****South Carolina H.B.3194 (enacted 2021):** Required the Public Service Authority to implement a plan to provide employees affected by coal station closures with access to job training programs and provide economic development opportunities in the communities where the retired coal stations are located. (Section 23)
- **Virginia S.B. 25 (enacted 2024):** Provided a \$500/kWh incentive for solar projects on former coal mines and a \$100/kWh incentive for solar projects on brownfields.
- ****West Virginia H.B.4479 (enacted 2022):** Established the Coalfield Communities Grant Facilitation Commission to administer state funds to local entities the required matching portion for certain grants; facilitated assistance to these local entities by providing access to grant writing expertise and support.

What is a Just Transition?

→ Just Transition is the concept that as the economy moves from being fossil fuel-based to being clean energy-based, former fossil fuel workers and communities are not left without any support. Economic transitions can be disorganized and disruptive or they can be intentional and pro-worker; proponents of a just transition advocate for policies that will provide economic replacement for fossil fuel communities and ensure that clean energy jobs are good jobs. - [Institute for Human Rights and Business](#)

Additional Resources

- **National Caucus of Environmental Legislators** - [Just Transition Issue Page](#)
- **Reclaiming Appalachia Coalition** - [NATIONAL TO NEIGHBORHOODS: Catalyzing Opportunities for Coal-Impacted Communities](#)
- **Blue Green Alliance** - [State-Based Policy Toolkit: Policies to Build a Cleaner, Safer, More Equitable Economy](#)
- **Evergreen** - [What Are Energy Communities and How Can They Benefit From the IRA?](#)





Overview

With the South's abundance of coastlines and agricultural lands, nature-based solutions can play a large role in the region's mitigation and adaptation to climate change. Virginia has taken the lead on nature-based solutions by creating an [intergovernmental taskforce](#) to study the ways nature can be used to sequester greenhouse gas emissions and there are great opportunities for other Southern states to make progress as well.

What are Nature-Based Solutions?

→ "Nature-based solutions refer to a suite of actions or policies that harness the power of nature to address some of our most pressing societal challenges, such as threats to water security, rising risk of disasters, or climate change." Examples include: restoration of habitats, water resource management, disaster risk reduction, and green infrastructure. - [World Wildlife Fund](#)

What is Carbon Sequestration?

→ "Biologic carbon sequestration involves storing CO2 in places where it is stored naturally as part of the carbon cycle. Some carbon is stored in plants—especially woody plants and grasslands—as a result of the biological process of photosynthesis. This process removes CO2 from the atmosphere and transforms it into living plant tissues." - [United States Department of Energy](#)

Legislation

Indicates bipartisan sponsorship

- ****Georgia H.B.355 (enacted 2021):** Created a Georgia Carbon Sequestration Registry focused on forest protection and embodied carbon in building materials.
- ****Texas H.B. 4018 (enacted 2023):** Allowed the Texas Parks and Wildlife Department (TPWD) to deploy nature-based solutions to generate funds for conservation efforts on state lands including fringing wetland marsh, oyster reefs and seagrass meadows.
- **Virginia S.B.1374 (enacted 2021):** Established an intergovernmental taskforce to study and submit a report on how to use state land and marine resources for carbon sequestration.
- ****West Virginia S.B.162 (enacted 2023):** Allowed the Division of Natural Resources to lease "state-owned pore spaces underlying state forests, natural and scenic areas and wildlife managements" for carbon sequestration.

Additional Resources

- **Federal Emergency Management Agency** - [Building Community Resilience with Nature-Based Solutions](#)
- **The Nature Conservancy** - [Coastal Resilience: Using nature-based solutions to protect Florida's coasts](#)
- **National Caucus of Environmental Legislators** - [Nature-Based Climate Solutions Webpage](#)
- **World Wildlife Fund** - [Powering Nature: Creating the Conditions to Enable Nature-Based Solutions](#)



Overview

The South has the potential to take advantage of its wide variety of renewable energy generation capacity. North Carolina and Florida currently sit in the [top 5 states for solar energy](#) generation, and Georgia sits in the top 10. Virginia is leading the charge for offshore wind energy in the region, and North Carolina is following close behind with South Carolina and Louisiana both considering legislation to evaluate their offshore wind industry capacity. Although renewable energy generation capacity is high in the region, limited legislation has been passed to encourage its development and some legislation has even discouraged further progress.

Legislation

Indicates bipartisan sponsorship

- **[Arizona H.B.2373 \(enacted 2023\)](#)**: Allowed a municipality or county to use a qualified online automated permitting platform to verify code compliance in order to satisfy the solar construction permit.
- **[North Carolina H.B.589 \(enacted 2017\)](#)**: Established Competitive Procurement of Renewable Energy Program; required Duke Energy to reach 6,160 MW of utility-scale solar and offer at least 20 MW of community solar per year for five years; required program for large businesses, universities, and military to procure renewable energy.
- **[Pennsylvania H.B.1032 \(Sent to Governor 2024\)](#)**: Provided grants to cover 50% of the installation of solar on public K-12 schools, community colleges, and career technical schools.
- **[South Carolina H.J.R.4831 \(enacted 2022\)](#)**: Directed the Department of Commerce to conduct an economic development study to evaluate the state's business advantages, economic climate, and workforce readiness to create a roadmap to effectively compete in attracting offshore wind energy supply chain industries to the state.
- **[Texas S.B. 1699 \(enacted 2023\)](#)**: Permits aggregated distributed energy resources to participate in the ERCOT wholesale market without having to register as a power generation company; permits utility providers to promote demand-response programs when possible and make use of grant funding for up to 10% of the costs.
- **[Virginia S.B. 1323 \(enacted 2023\)](#)**: Requires the State Corporation Commission to establish annual energy efficiency savings targets for customers who are low-income, elderly, disabled, or veterans.
- **[Virginia S.B. 253 \(enacted 2024\)](#)**: Created a shared solar program for Appalachian Power customers and expand Dominion Energy's existing program ([**S.B. 255](#)).

Additional Resources

- **National Caucus of Environmental Legislators** - (1) [Community Solar Issue Page](#), (2) [Emerging Energy Technologies Issue Page](#), (3) [Offshore Wind Issue Page](#), and (4) [Renewable Energy & Energy Efficiency Issue Page](#)
- **Solar United Neighbors** - [Learn the Issues: Solar](#) and [Solar Incentives & Financing in Florida](#)
- **Local Solar for All** - [Local Solar Roadmap](#)
- **Southern Alliance for Clean Energy** - [Solar in the Southeast Annual Report](#)





Overview

In recent years, transportation has been an area for some progress amongst Southern states. The onset of funds from the Federal Infrastructure Investment and Jobs Act has only spurred more action in transportation, specifically with the requirement of creating electric vehicle deployment plans to receive certain funds. Transportation policy can also promote public and active transportation methods that reduce [Vehicles Miles Traveled \(VMT\)](#).

Additional Resources

- **National Caucus of Environmental Legislators** - (1) [Electric Vehicles Issue Page](#), (2) [Public Transportation Issue Page](#), and (3) [Active Transportation Issue Page](#)
- **Southern Alliance for Clean Energy** - [Retained Transportation Fuel Spending in the Southeast: Electric Vs Internal Combustion Vehicles](#)
- [Southeast Electric Transportation Regional Initiative \(SETRI\)](#)
- **National Caucus of Environmental Legislators** - [Transportation Briefing Book](#)
- **Southern Alliance for Clean Energy and Atlas Public Policy** - [Transportation Electrification in the Southeast](#)

Legislation

Indicates bipartisan sponsorship

- ****Georgia S.B.146 (enacted 2023)**: Allowed convenience stores and other businesses to charge consumers for electricity by the kilowatt hour instead of the amount of time it takes for electric vehicle drivers to charge their batteries.
- ****Florida C.S./S.B.7018 (enacted 2020)**: Required the department to develop a master plan for electric vehicle charging station infrastructure along the State Highway System.
- ****Tennessee S.B.2602 (enacted 2022)**: Directed the state to study the cost, feasibility, and infrastructure of expanding railroad passenger service in this state.
- ****Tennessee S.B. 1807 (enacted 2024)**: Required the Department of Transportation to submit a report on its progress on passenger and freight rail and public transportation; requires DOT to create an Office of Rail and Public Transportation.
- **Utah S.B.185 (enacted 2023)**: Created the Active Transportation Investment Fund.
- **Virginia S.B. 575 (enacted 2022)**: Required all agencies of the Commonwealth to utilize the total cost of ownership calculator prior to purchasing or leasing light-duty vehicles and to purchase electric vehicles unless the calculator clearly indicates that purchasing or leasing an internal combustion-engine vehicle has a lower cost of ownership.
- ****West Virginia H.B.4492 (enacted 2022)**: Created the Division of Multimodal Transportation to promote safe, efficient transportation, preserve rail, water and airway facilities.



Overview

The Energy Freedom Act ([**SC A. 62, R. 82, H. 3659](#)) passed in 2019 changed the face of utility regulation and renewable energy development in South Carolina. This piece of legislation made South Carolina a leader in utility regulation for the benefit of the consumer. The Energy Freedom Act received bipartisan sponsorship.

Outcomes

→ The effects of this law have been significant, with the newly armed Public Service Commission [rejecting the Integrated Resource Plan](#) of Dominion Energy South Carolina (DESC) in 2020 and [rejecting the Solar Choice Metering proposal](#) from Dominion Energy in 2021.

Referenced Resources

- **South Carolina Office of Regulatory Staff** - [South Carolina Energy Freedom Act](#)
- **Energy News Network** - [Commentary: With Energy Freedom Act, South Carolina takes steps toward resilience](#)
- **Southern Alliance for Clean Energy** - [Legislators Shine Light on Energy Competition in SC](#)

Notable Aspects of the Bill

- Enshrines consumer protections and rights including:
 - » Protection from rising costs
 - » Opportunities to reduce or manage their own energy usage
 - » Right to electric rates that enable energy efficiency, demand response, or onsite distributed energy resources (DERs) to reduce their electricity usage
 - » Right to obtain and use data collected by a utility on their individual energy consumption. (Sections 58-27-845 and 58-27-2660)
- Allows customers with solar panels (or other forms of renewable energy) to cover some or all of their monthly electric bills with energy they generate through net metering. (Sections 58-40-10, 58-40-20, and 58-27-2610)
- Encourages electric service providers to offer neighborhood community solar programs. (Section 58-41-40)
- Directs the Public Service Commission to promote access to solar energy projects for low- and moderate-income customers. (Section 58-41-40)
- Authorizes the Public Service Commission to open a generic docket to create programs for the competitive procurement of energy and capacity from renewable energy facilities by an electrical utility. (Sections 58-41-20, 58-41-20, and 58-33-110)
- Requires utilities to file a voluntary renewable program for commercial and industrial retail customers with a demand of 1 MW or more and allows participating customers to negotiate and contract directly with renewable energy suppliers. (Section 58-41-30)
- Requires the Public Service Commission to consider revisions to include energy storage and ensure efficient and timely processing of interconnection requests. (Section 58-27-460)
- Requires utilities to submit Integrated Resource Plans at least every 3 years and provide annual updates. Gives the Public Service Commission authority to approve, deny, or modify a utility's Integrated Resource Plan. (Section 58-37-40)



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