



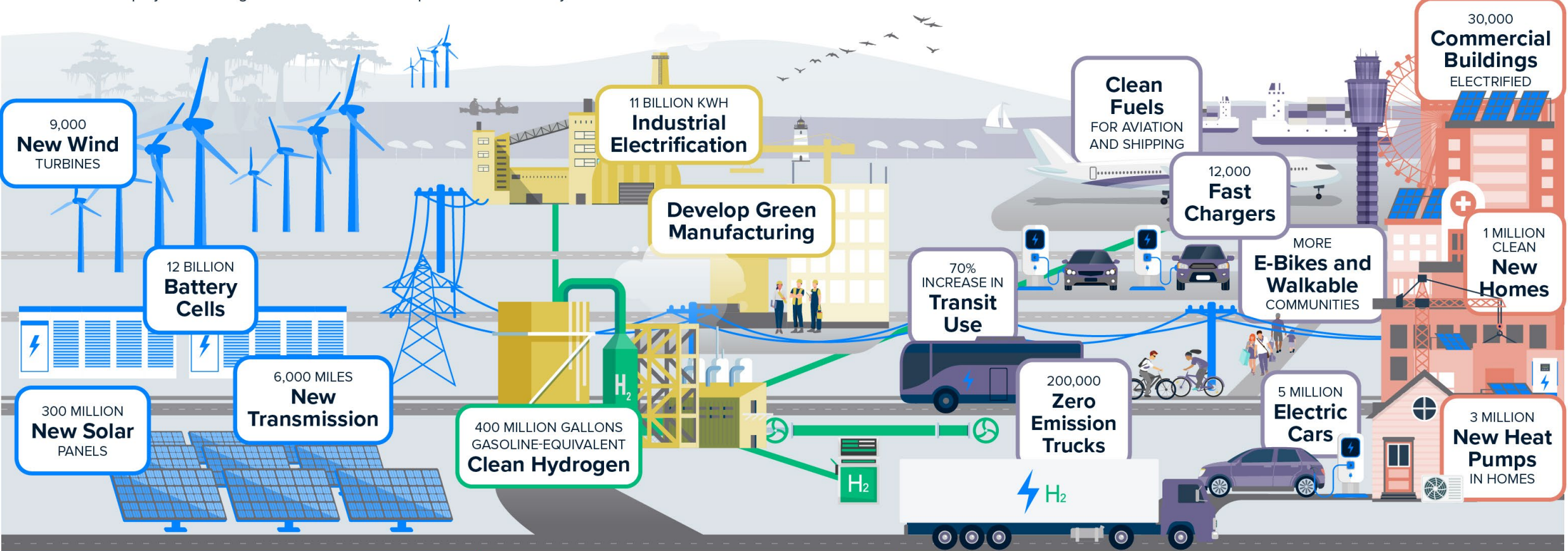
# Toward a Clean Energy- Led Economic Development Strategy for **South Carolina**



# Clean Energy Economy Opportunity

# SOUTH CAROLINA

This chart depicts the economic opportunity of the energy transition by showing estimated clean technology investment and deployment through 2050 across different parts of the economy and the associated benefits.



Electricity 24

Industry 20

Transportation 33

Buildings 4

Size of bars based on current annual greenhouse gas emissions (million metric tons CO<sub>2</sub>e)

**HUMAN IMPACT**



**60,000**  
New Clean Economy  
**JOBS**



**\$3 Billion**  
per year saved from  
AVOIDED DEATHS



**1,100**  
FEWER YEARLY  
**Asthma Attacks**



**\$11 Billion**  
Potential Federal  
Investment from IRA

This data came from the Net-Zero America project and the Energy Policy Simulator and may not align with other state-specific modelling. Additional information at: [rmi.org/state-graphics](http://rmi.org/state-graphics)

# Seizing the Clean Energy Opportunity in 'Three Cs'

## Competitiveness



Industry  
Prioritization



Strategic  
Industrial Policy



Public-Private  
Coordination

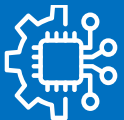


Federal  
Incentive  
Uptake

## Constraints



Policy  
Environment



Innovation  
Ecosystem



Capital  
Availability



Data Gaps



Education  
& Skills  
Gaps



Supply Chain  
Networks

## Coordination

- Have a plan for **working with federal entities** to maximize the benefits from recent legislation.
- Coordinate between state agencies around **shared roadmaps, strategies, and solutions**.
- Develop **mechanisms for coordinating between policymakers and private industry** in strategic industries.
- Proactively **communicate with community groups** to understand and overcome local investment barriers.

# Three Cs: Competitiveness



South Carolina has a **once-in-a-generation** opportunity to take advantage of private momentum and public incentives



South Carolina is likely to be more competitive in energy transition industries where it has **related existing capabilities**.



Most **states lack coherent or cohesive industrial strategies** for priority energy transition industries.



The use of incentives to attract strategic projects can bolster competitiveness and economic development in a region if targeted appropriately and when conducted with **best-practice program design**.

# Three Cs: Constraints



South Carolina's economy and population is **booming**, creating capacity challenges and investment opportunities.



South Carolina has a competitive manufacturing industry that positions it well to **attract new cleantech investments**.



Corporate demand for 24/7 clean electricity and green supply chains is creating growing **siting, permitting, and transmission challenges**.



Growing demand is creating worker shortages and **skills gaps**.



Community opposition amid legacies of environmental pollution and economic inequality will have to be **proactively managed**.



"Valley of Death" challenges in converting academic knowledge and capacity to entrepreneurship and products are ongoing.

# Three Cs: Coordination



South Carolina should increase its efforts to coordinate with the federal government to **maximize benefits of new legislation**.

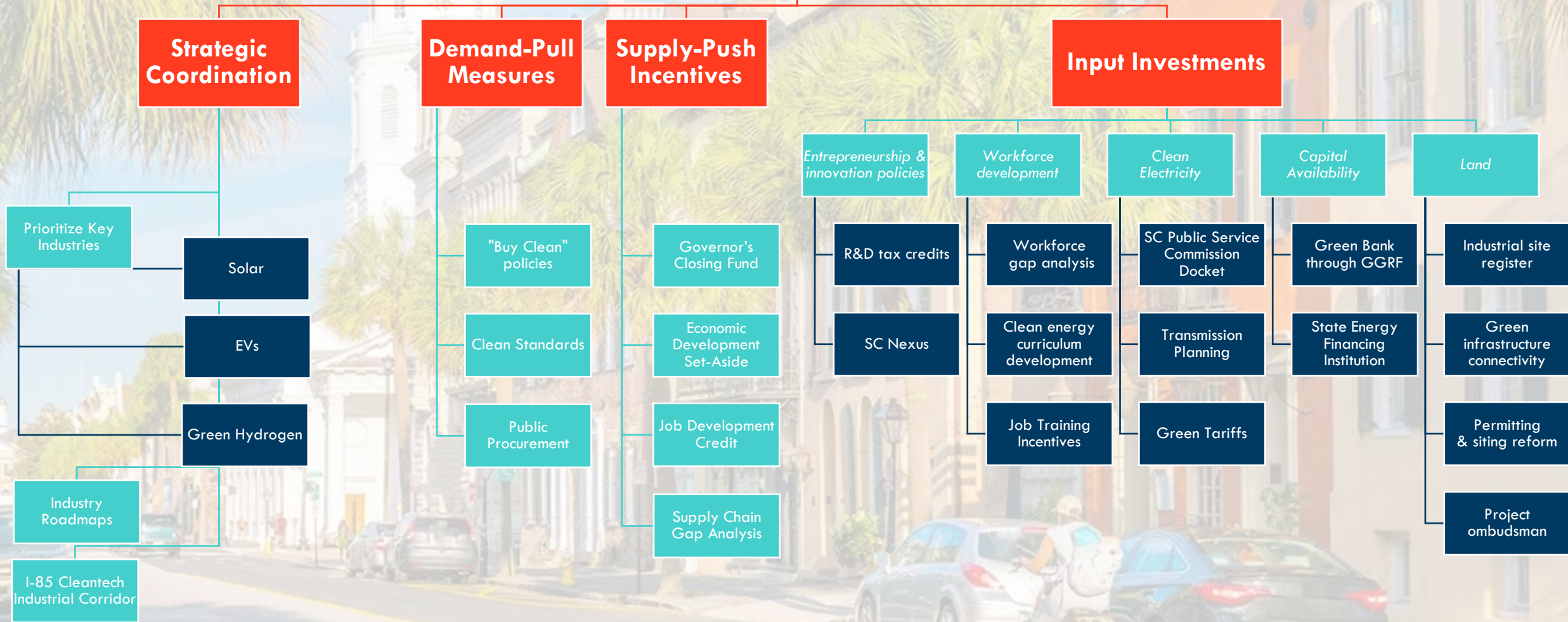


Inter-agency coordination, in efforts such as PowerSC, can be powerful mechanisms of economic change.



Public-private coordination can help create **globally competitive clusters** in strategic industries, such as along the I-85 corridor.

# A Clean Energy-Led Industrial & Economic Development Strategy for South Carolina





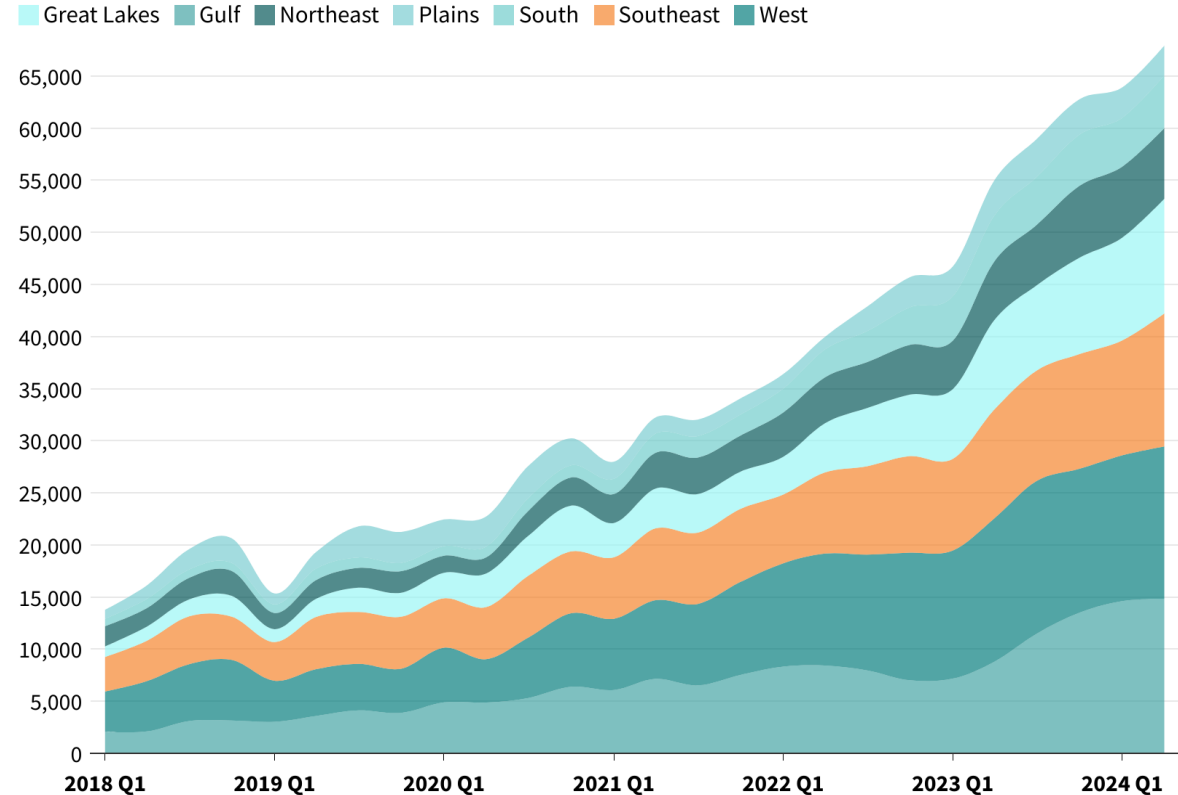
# The IRA Is a Generational Opportunity for South Carolina

# The clean energy economy is booming

There is a generational opportunity for South Carolina to get in on the ground floor of the energy transition

## Clean energy investment in the United States is almost 5x that of 2018

In the Southeast, quarterly investment has more than doubled since the passage of the IRA in 2022, reaching \$13B a quarter.



Investment in Millions USD.  
 Chart: RMI Graphic • Source: Clean investment Monitor

## The big winners since the passage of the Inflation Reduction Act (IRA)

Growth in cumulative investment since 2018, indexed to Q2-2022. (2022-Q2=100)

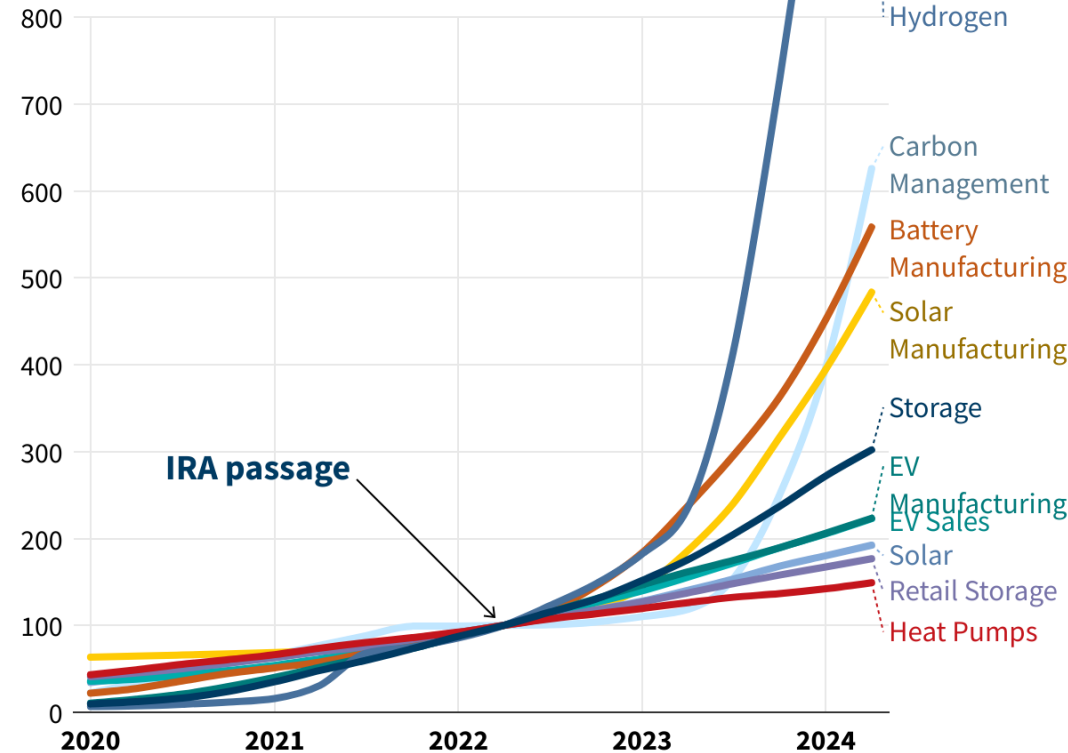


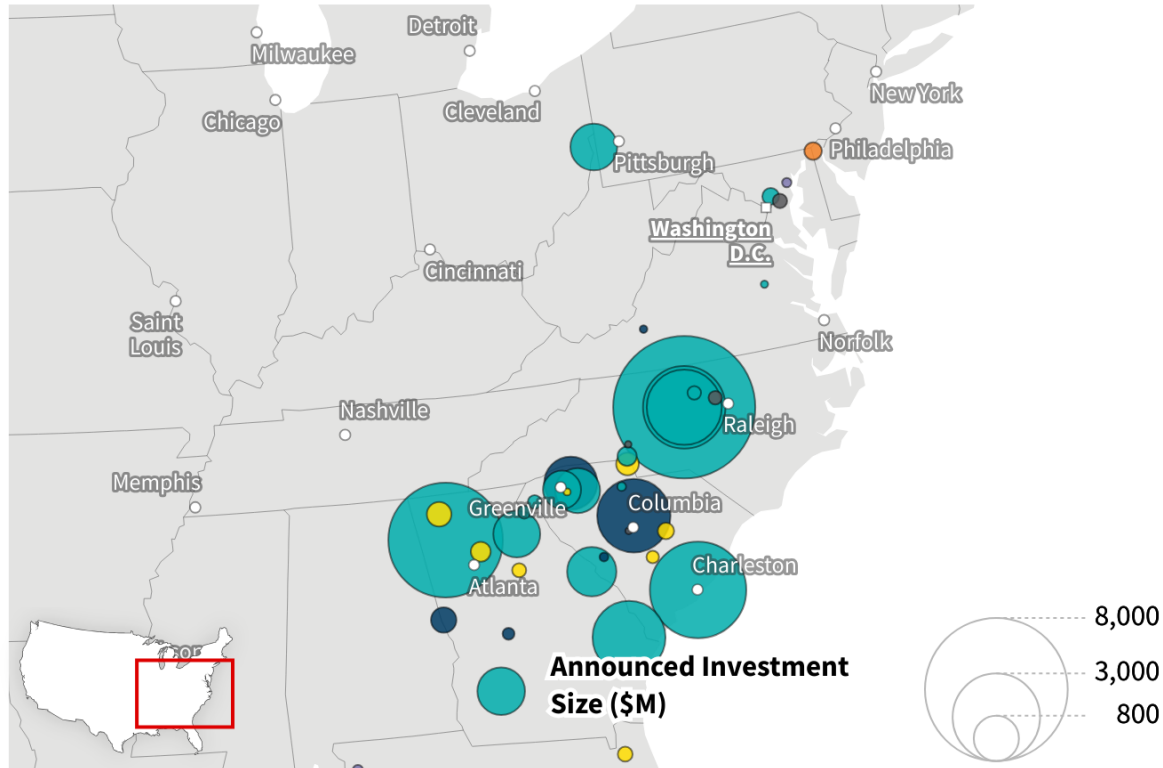
Chart: RMI Graphic • Source: Clean Investment Monitor

# Especially clean energy manufacturing

South Carolina has already seen an explosion in manufacturing projects, showing the hype is real.

## Cleantech manufacturing is booming in the Southeast

■ Batteries 
 ■ Electrolyzers 
 ■ Fueling Equipment 
 ■ Solar 
 ■ Wind 
 ■ Zero Emission Vehicles



Map: RMI • Source: Clean Investment Monitor

## South Carolina has seen nearly \$12B in cleantech manufacturing announcements, and over \$3B in realized investment since the IRA

State	Total Manufacturing Announcements (\$M, 2022-24)	Total Manufacturing Investment, (\$M, 2022-24) ▼	National Share (%)
Georgia	15,351	10,640	11.9%
North Carolina	14,210	7,138	8.0%
South Carolina	11,858	3,098	3.5%
West Virginia	796	507	0.6%
Delaware	81	86	0.1%
Virginia	415	66	0.1%
Florida	72	56	0.1%
Maryland	288	52	0.1%

Table: RMI • Source: Clean Investment Monitor

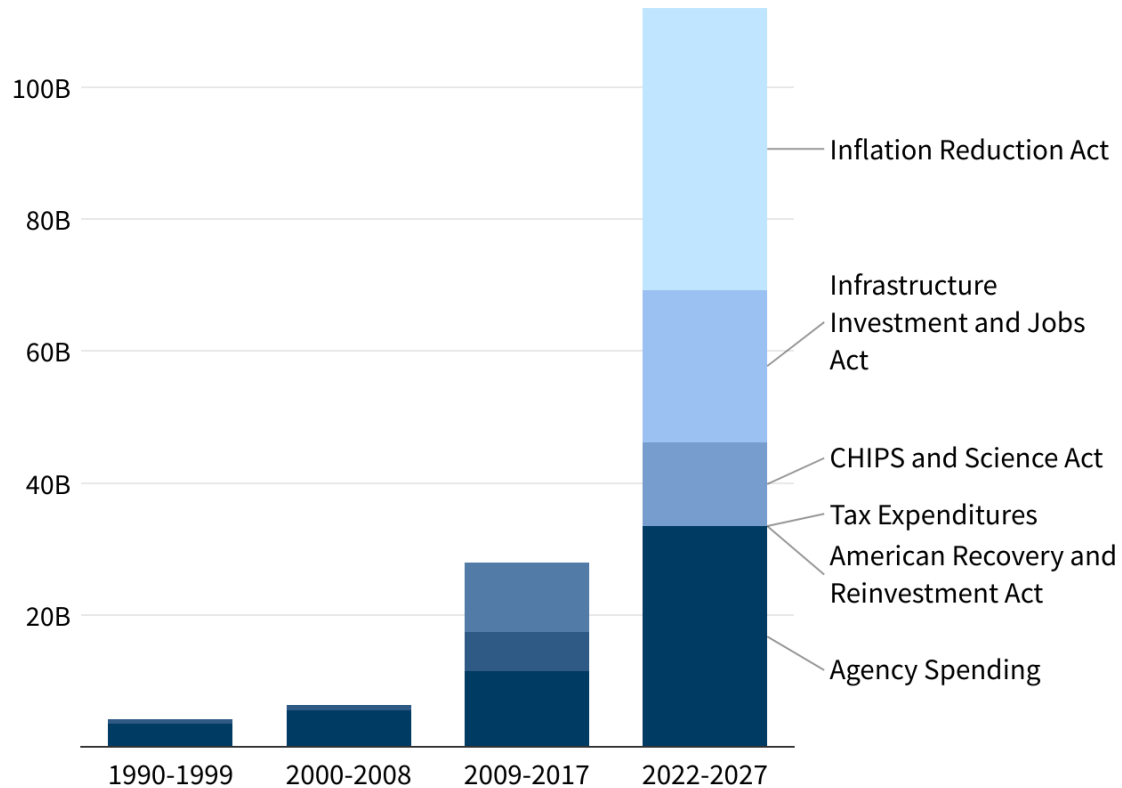


# IRA + IIJA + CHIPS = A big deal

Unprecedented federal support puts US industries in a position to compete globally

## Federal Spending on Climate Will Exceed \$100B Annually

Spending will more than triple historic levels.

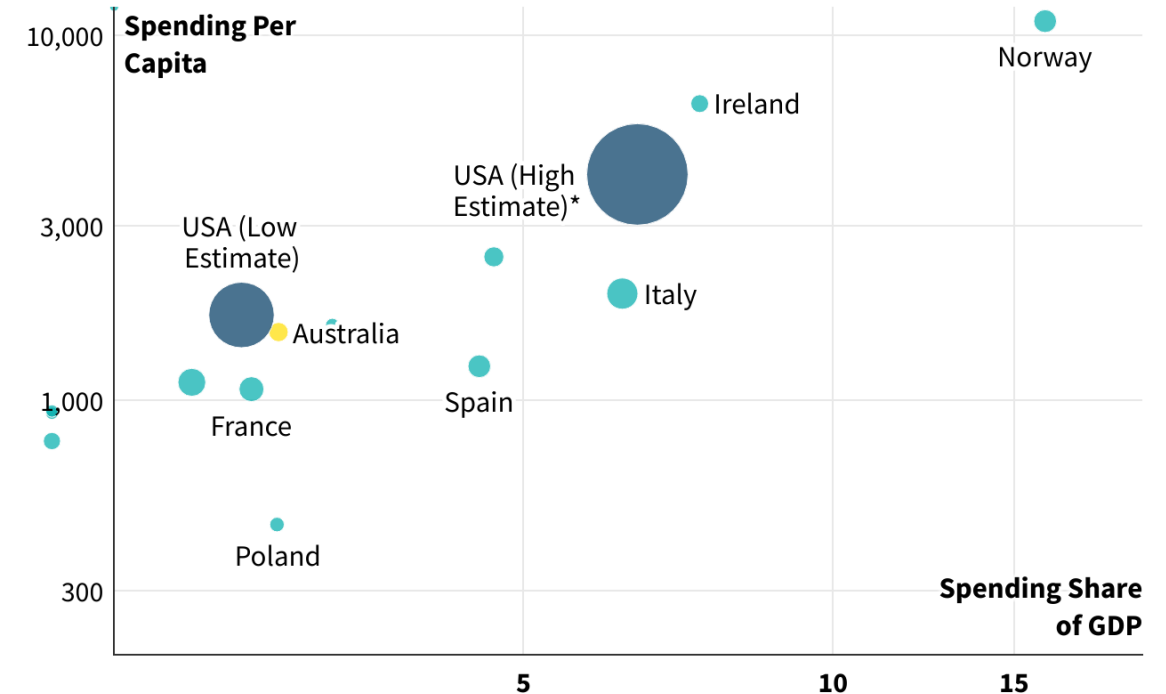


Average annual spending, adjusted for inflation. Note that the time periods shift from 2000--2008 to 2009--2017 to 1) consolidate the impact of the ARRA to one bar, and 2) address missing data between 2018 and 2021. Values are based on RMI estimates using agency spending data from the GAO, tax expenditure data from the JCT, and internal analysis on 2021-2022 legislation.

Source: RMI • Created with Datawrapper

## Clean Energy Spending Among Developed Countries since 2020

Even using conservative estimates, the United States has dedicated the most spending towards clean energy policies since COVID and is among the highest spenders relative to population and GDP. This grows significantly when accounting for uncapped tax credits.



Spending figures are for clean energy investment support only and exclude energy affordability measures. \*Uses the Goldman Sachs \$1.2 trillion estimate of overall IRA incentives, rather than the official CBO \$369 billion estimate.

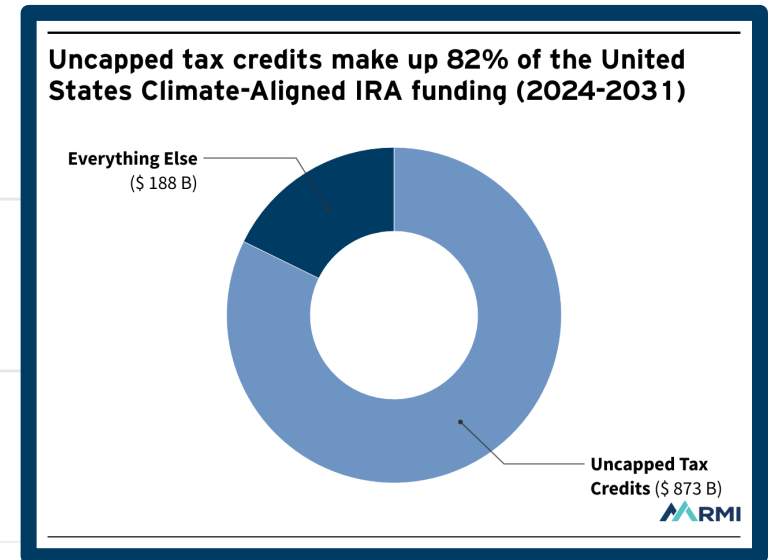
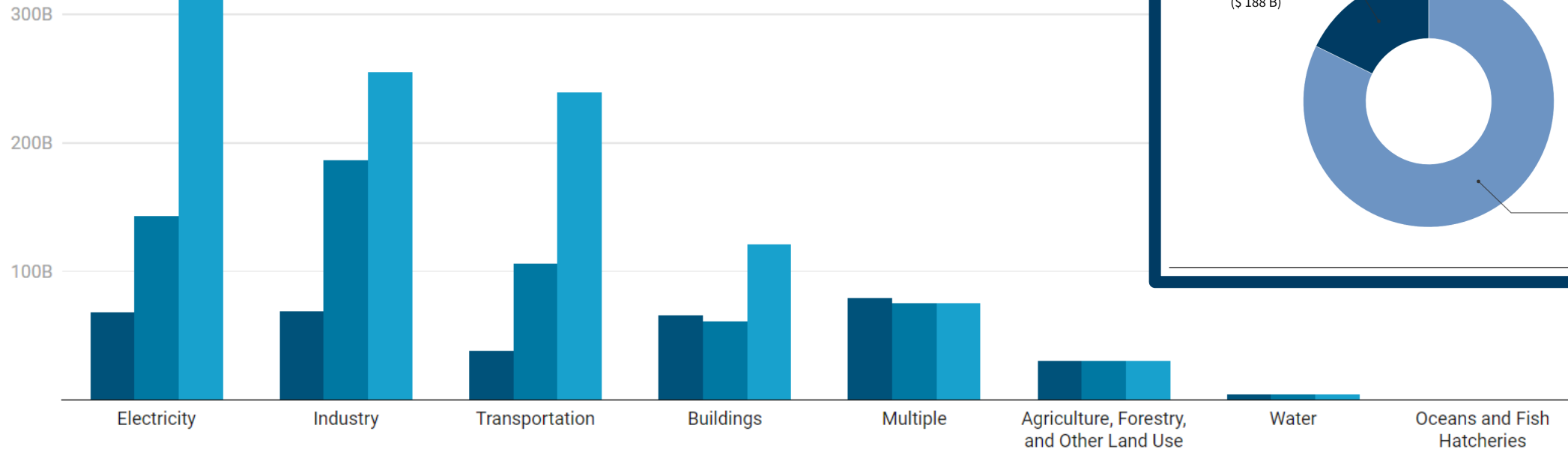
Chart: RMI Graphic • Source: IEA Government Energy Spending Tracker • Created with Datawrapper

# Headline IRA numbers undersell its potential

Uncapped tax credits could lead to ~\$1 trillion spending bill

## Updated CBO and Climate-Aligned IRA Funding Estimates (2023-2031)

■ Original CBO Estimate ■ Updated CBO Estimate ■ Updated Climate-Aligned Estimate



[Get the data](#) • Created with [Datawrapper](#)



# South Carolina's Clean Energy Economy

# Boom times for South Carolina

The Palmetto State is growing at a rapid pace, creating opportunities and putting pressure on infrastructure

## Third-Fastest growing economy in the region

GDP growth since 2012, Index 2012=100

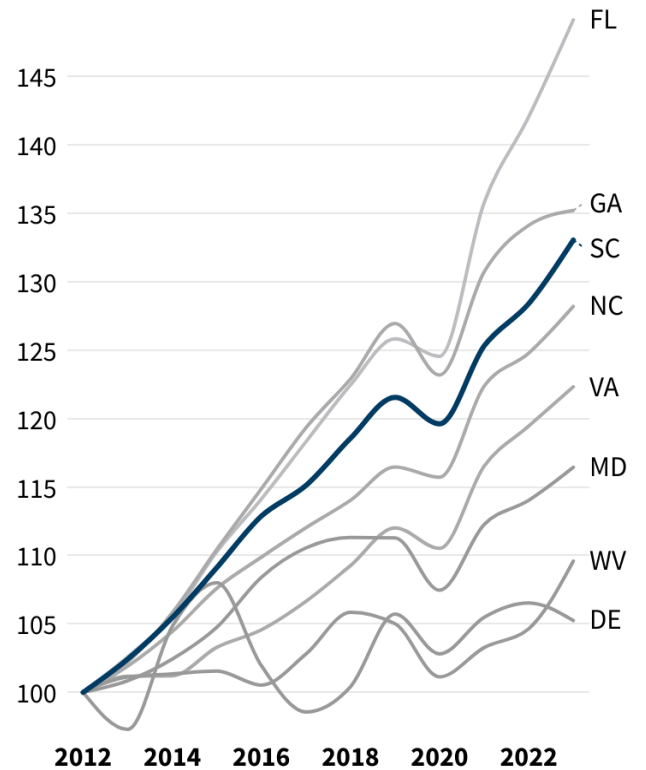


Chart: RMI • Source: BEA



## Second-Fastest Growing Population in the Region

Population Growth since 2012, Index 2012=100

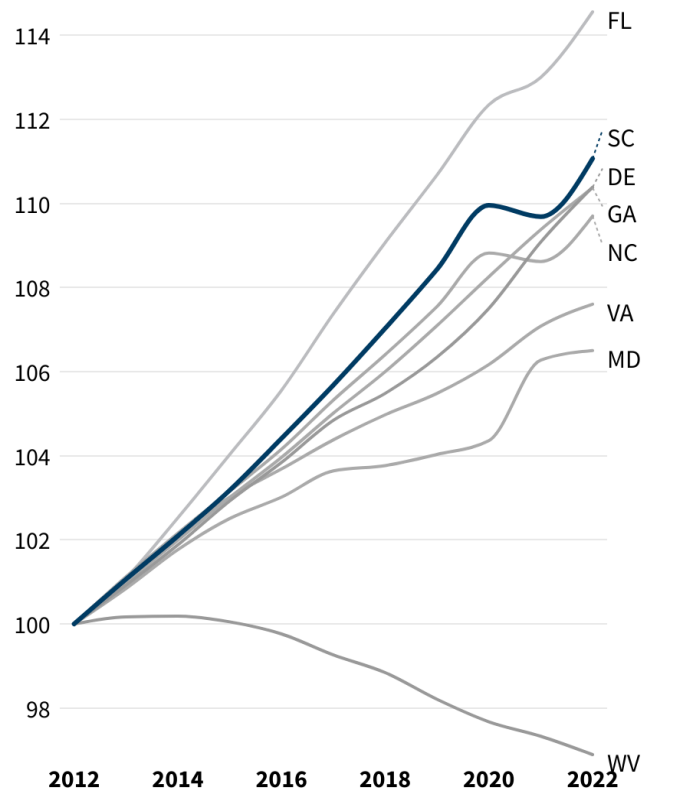


Chart: RMI • Source: BEA



## Third-Fastest Energy Consumption Growth Within the Region

Energy Consumption Growth since 2012, Index 2012=100

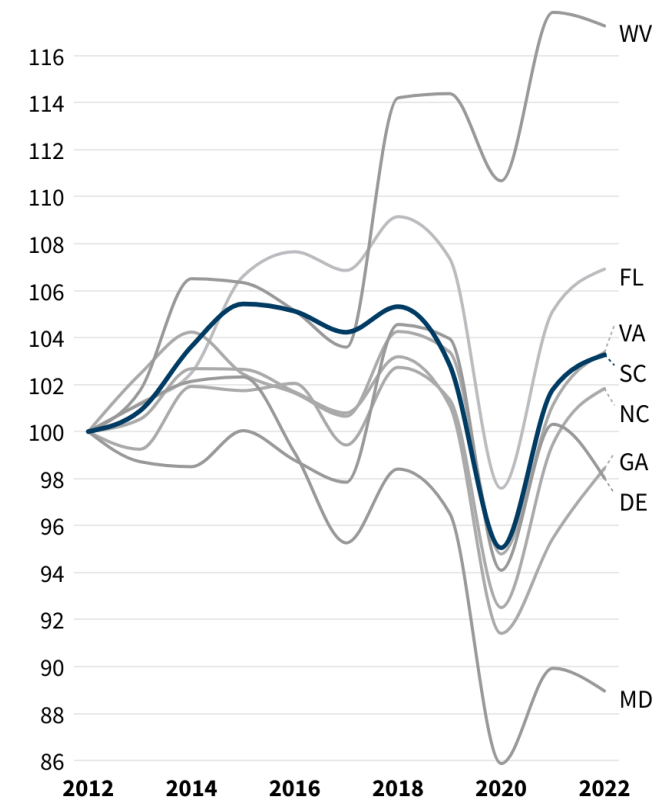
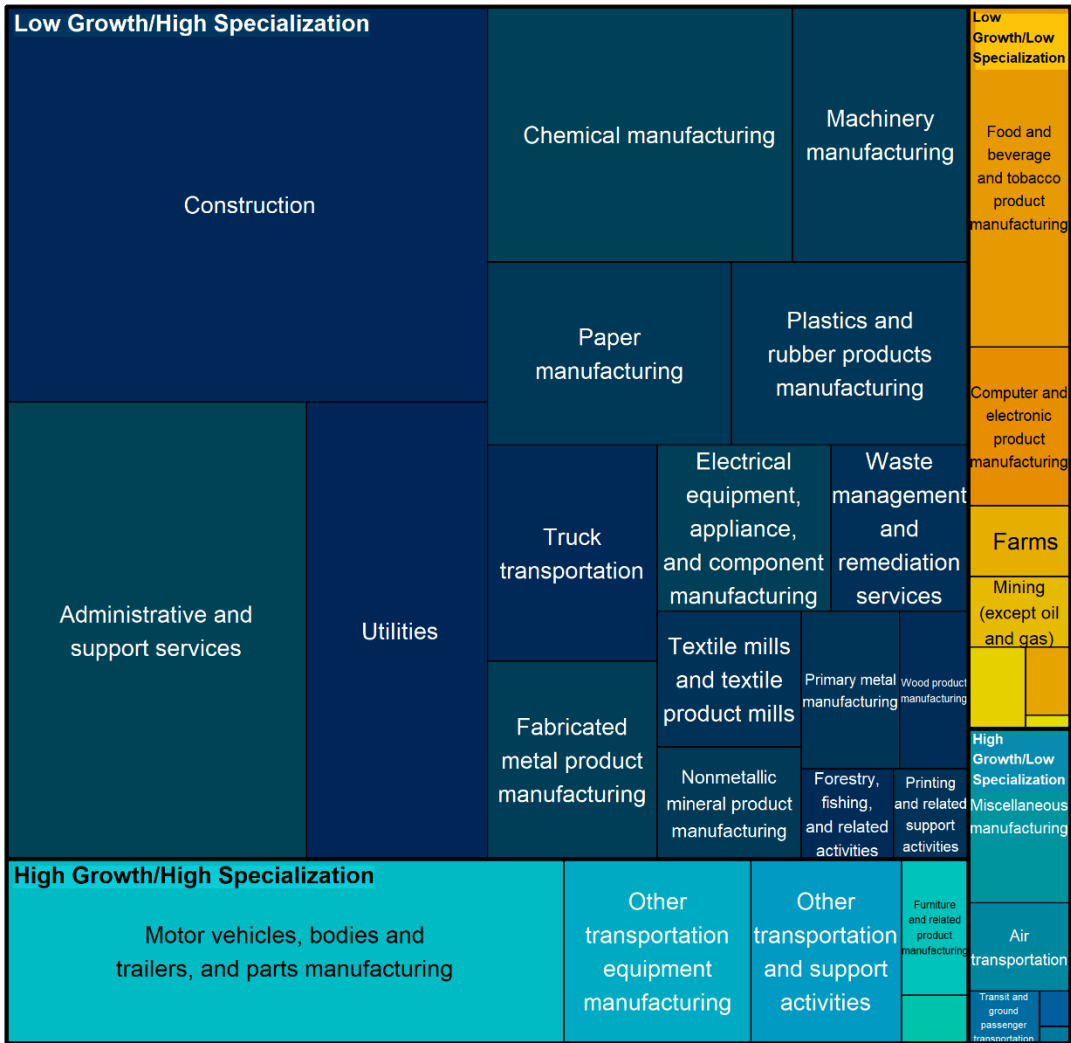


Chart: RMI • Source: EIA SEDS

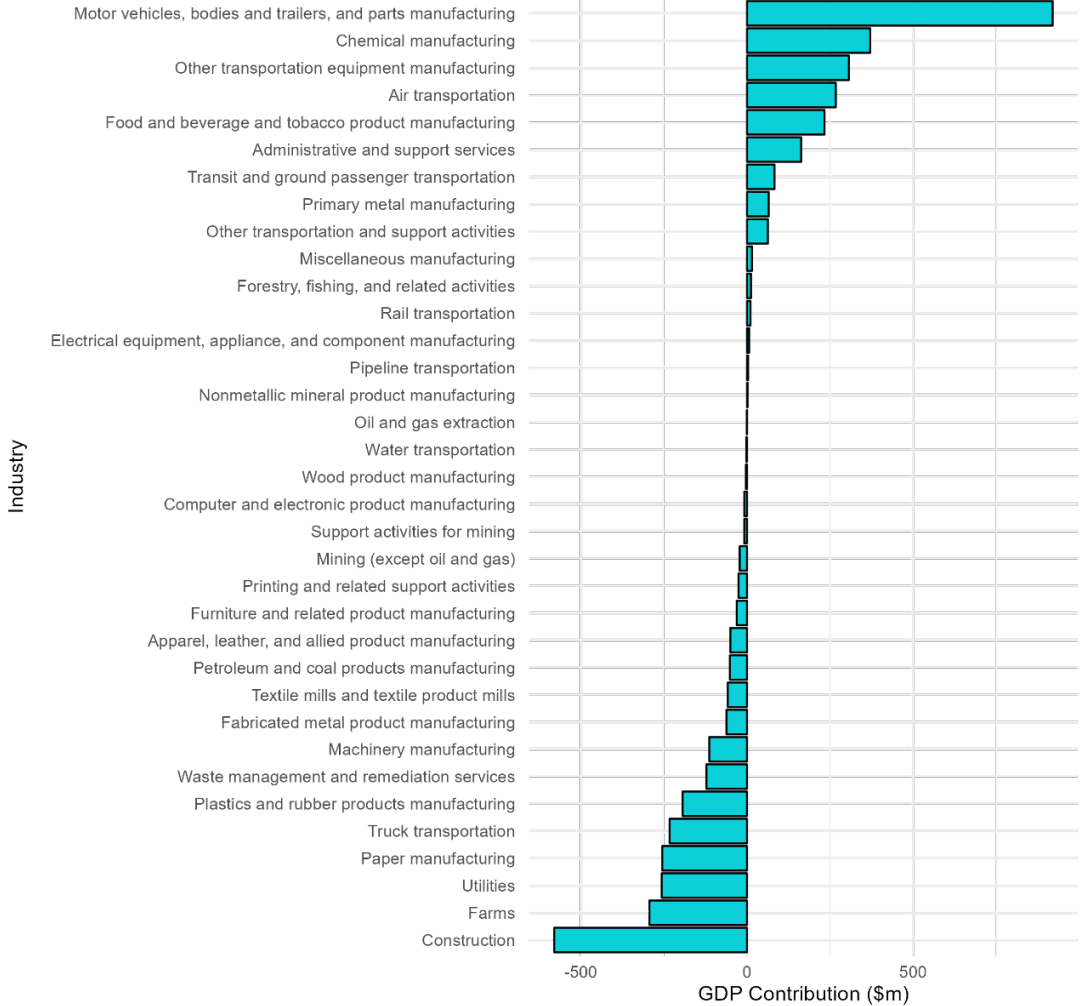
# South Carolina's clean energy economy

The largest segments of SC's energy economy are in construction, utilities, and a range of manufacturing sectors. Its fastest growing sector in recent years has been motor vehicle manufacturing, while utilities and construction have shrunk.

South Carolina's Clean Energy Economy by Industry Growth and Specialization



2021-2022 GDP Contribution from South Carolina  
Change in GDP by industry 2021-2022



# South Carolina's clean energy employment

South Carolina's largest clean employers are in electric power generation and energy efficiency.

## South Carolina's energy employment by technology

The state's largest overall energy employer is vehicles, while electric power generation and energy efficiency are tied for most clean jobs at around 20,000 each.

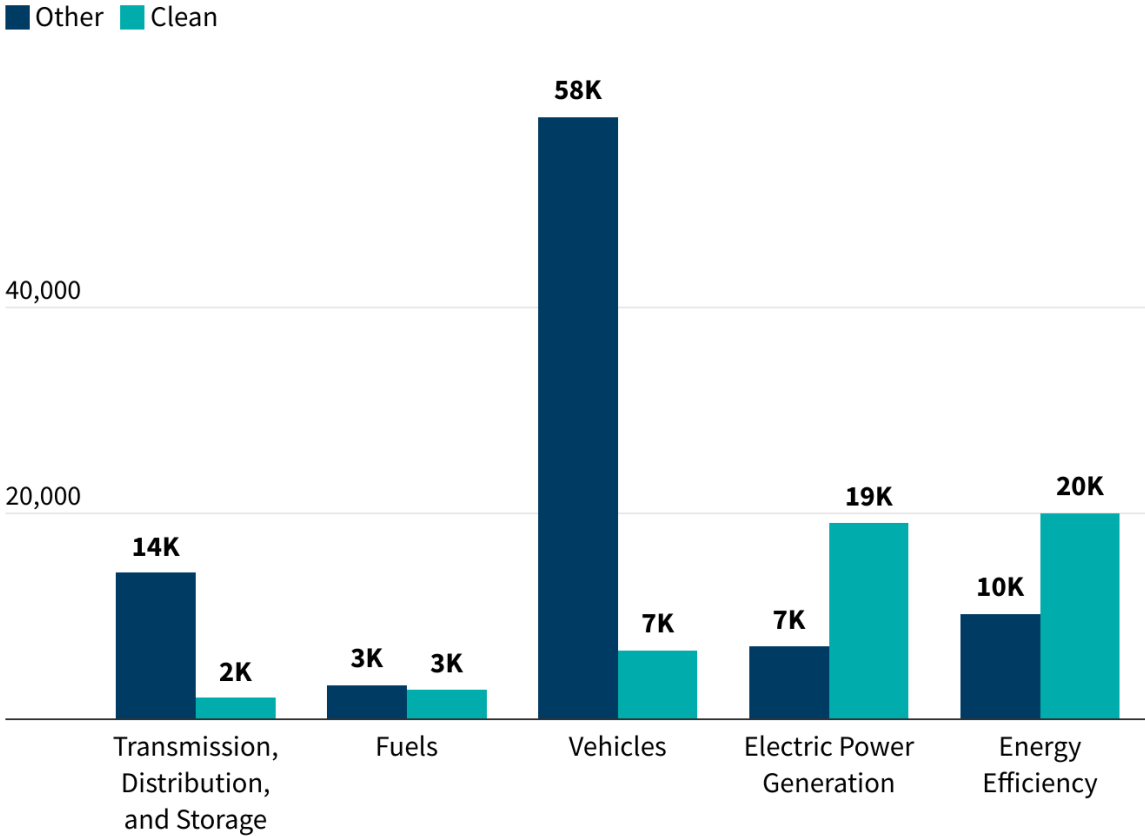


Chart: RMI • Source: 2024 U.S. Energy & Employment Jobs Report (USEER)



## South Carolina's Energy Employment by Industry

Total jobs in energy industries across South Carolina

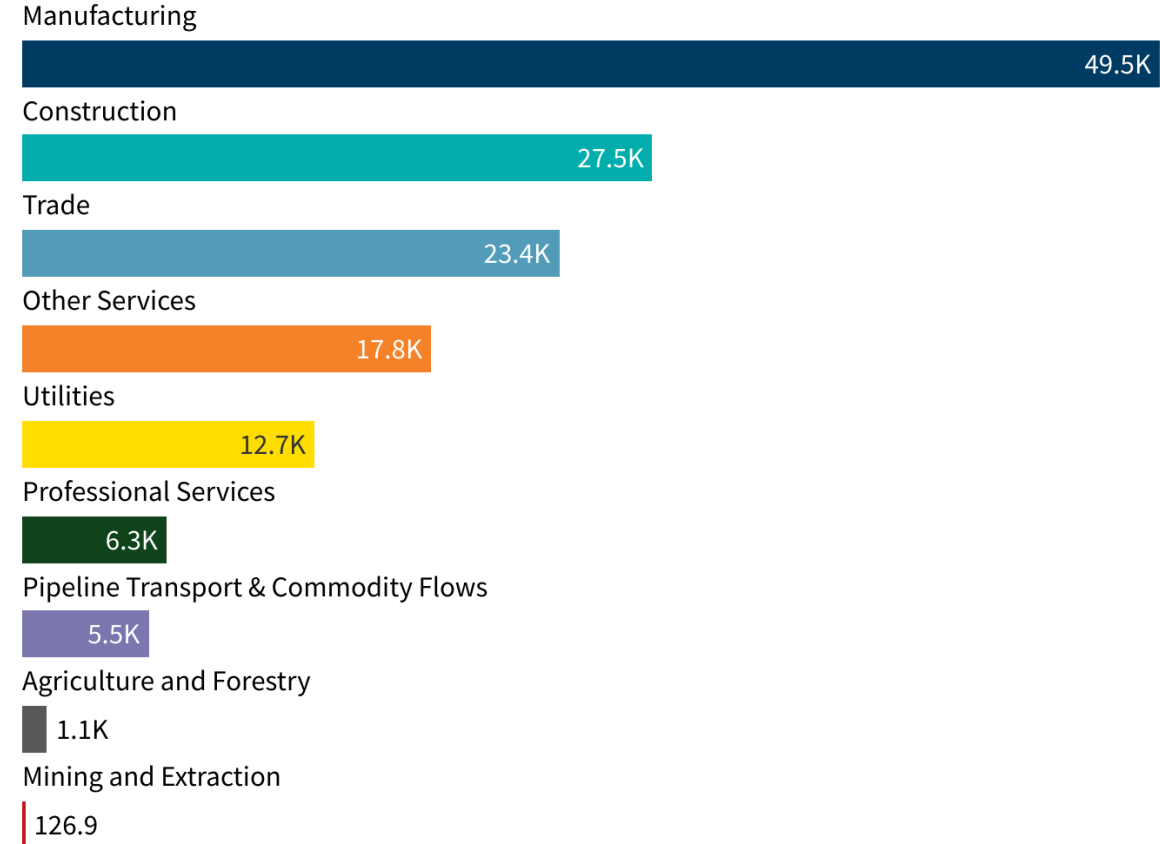


Chart: RMI • Source: 2024 U.S. Energy & Employment Jobs Report (USEER)



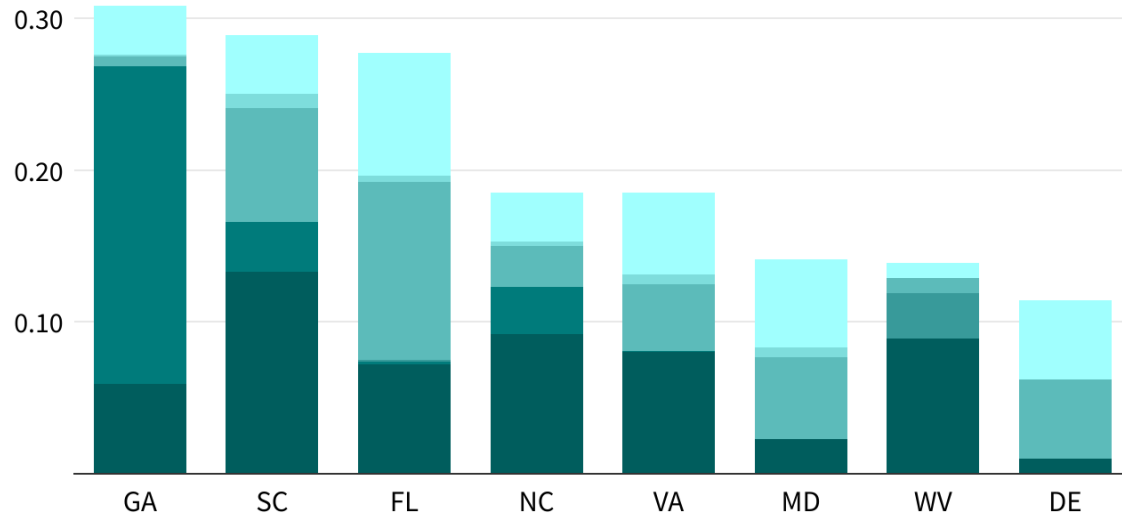
# South Carolina has already received nearly \$1 billion in federal clean energy investments

In a climate-aligned scenario, this could increase to \$10-14 billion total by 2031 as clean electricity, manufacturing and vehicle tax credits stimulate growth in the state.

## South Carolina has received some of the most clean energy public investments in the region

The largest contributors are clean electricity and residential efficiency tax credits (estimated investments since 2022 as a share of GDP)

■ Clean Electricity Tax Credits 
 ■ Advanced Manufacturing Tax Credits 
 ■ Emerging Climate Technology Tax Credits 
 ■ Residential Energy & Efficiency Tax Credits 
 ■ Non-residential Distributed Energy Tax Credits 
 ■ Zero-Emission Vehicle Tax Credits



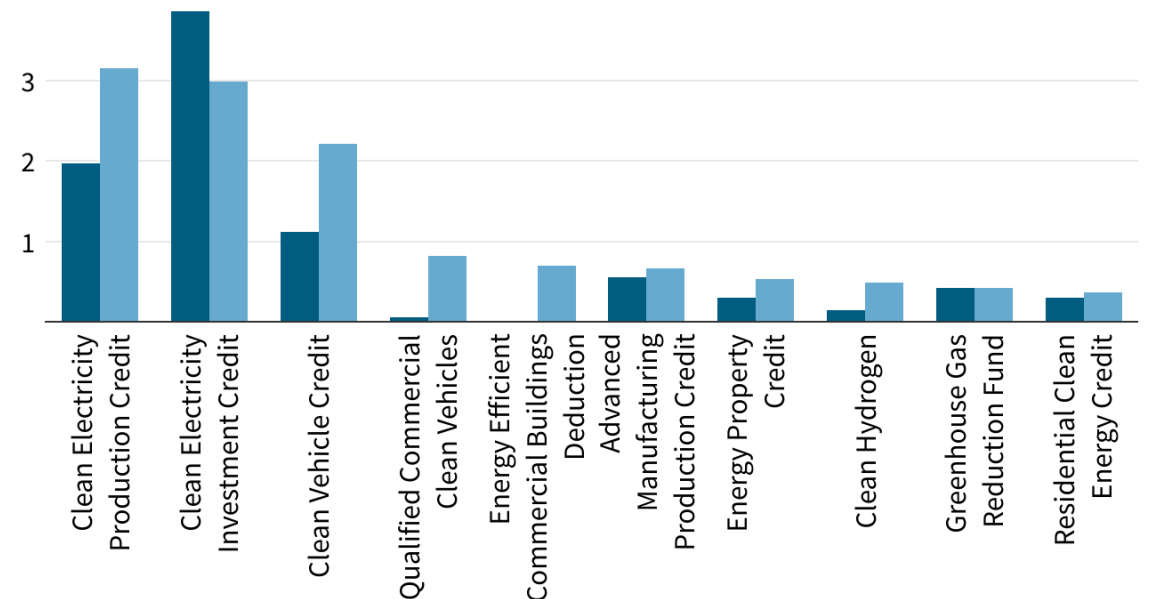
Source: Clean Investment Monitor; Author Estimates



## The state also has the potential to attract billions more in federal financing

Estimates of total federal funding to South Carolina by 2031 in a business-as-usual (CBO) scenario, and one in which the US meets its climate goals (High Uptake)

■ CBO Downscaled State Estimate (\$B) 
 ■ High-Uptake Scenario (\$B)



Source: Clean Investment Monitor; Author Estimates

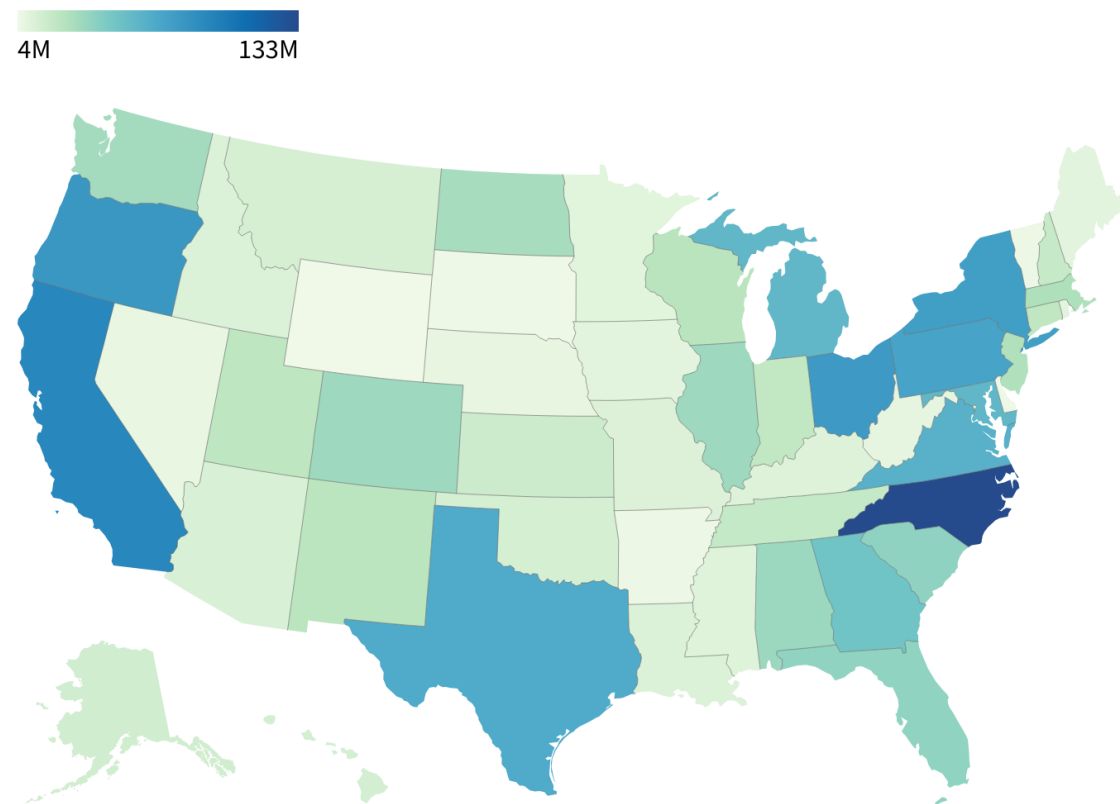


# A significant player in cleantech innovation

As entrepreneurs search for the next wave of clean energy technologies, South Carolina's relative strength in attracting federal R&D dollars and inventing new patents positions it well to capitalize.

## Public Funding for Low Carbon Research and Development

South Carolina received nearly \$40million in Federal RD&D grants from 2016-2021



Map: RMI • Source: ITIF



RMI – Energy. Transformed.

## South Carolina is a regional power in manufacturing, transport, and wind patents

Number of clean energy patents, by sector, 2016-2021

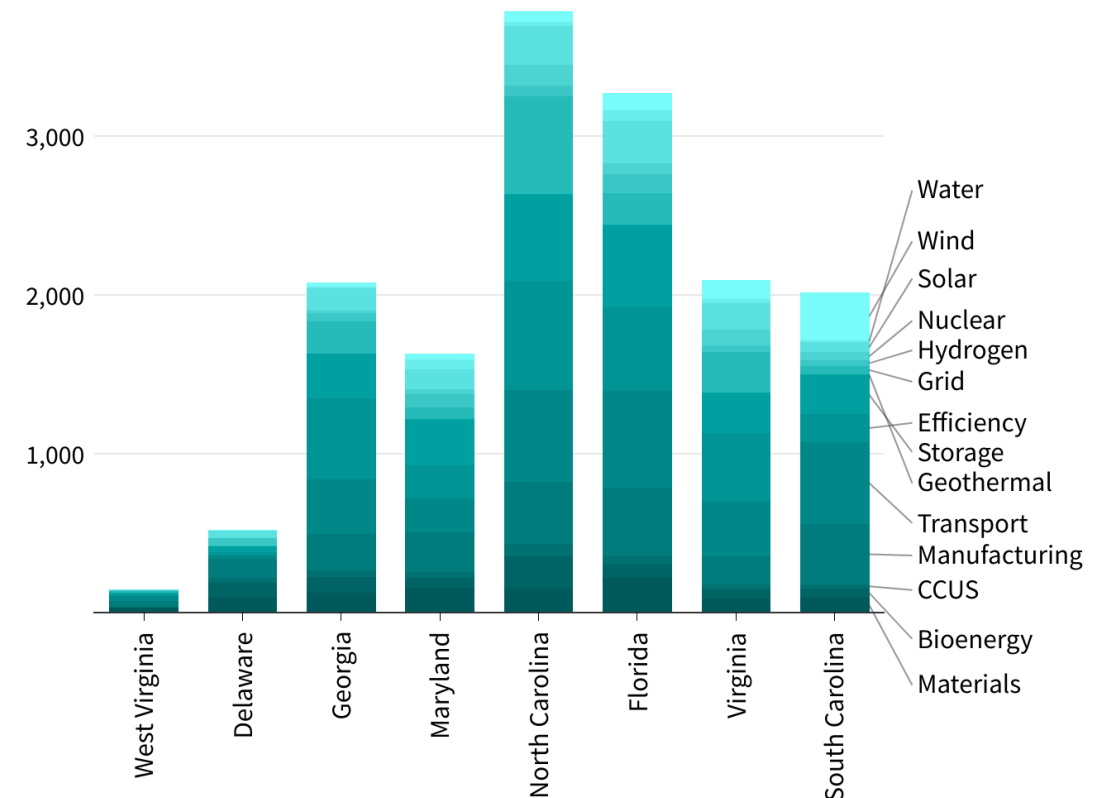


Chart: RMI • Source: ITIF



# South Carolina is adding renewable electricity at a quick pace

As legislators have removed regulatory barriers to clean energy, the state has seen something of a boom in renewable electricity, especially solar, although this has been slower than in states like Virginia and Florida.

## South Carolina has quadrupled its renewable electricity capacity since 2018

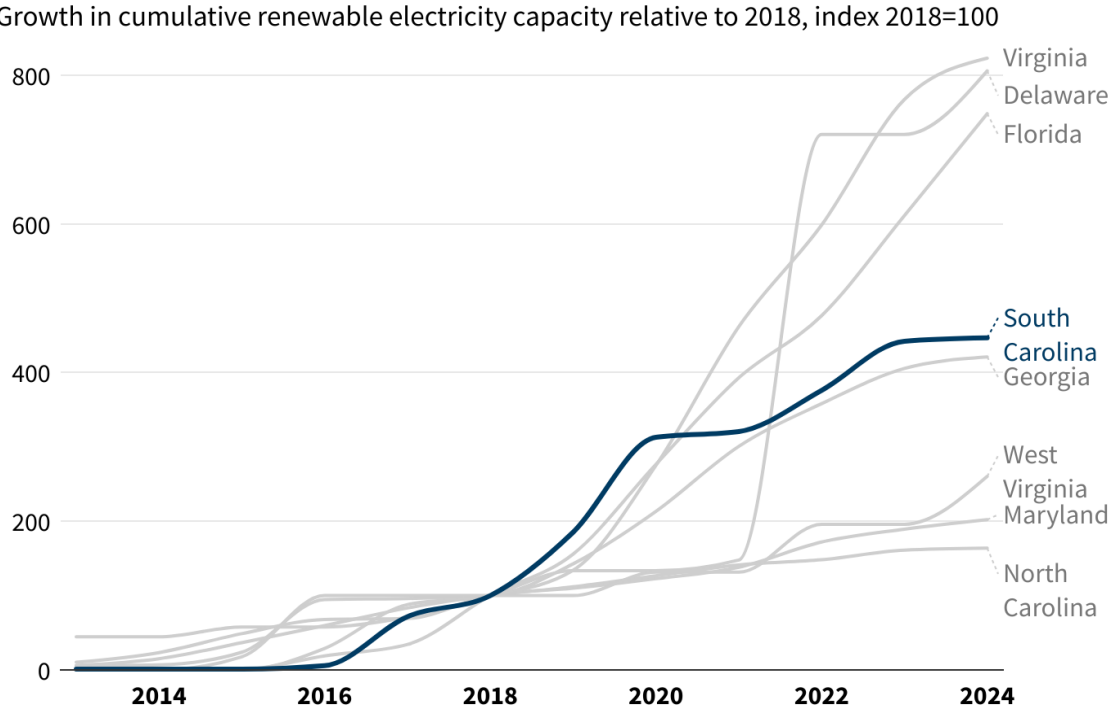


Chart: RMI • Source: EIA

## Over 70% of planned electricity additions in SC are solar

Over 1GW of solar projects have received regulatory approvals but are yet to go into construction,

■ Regulatory approvals pending. Not under construction
 ■ Regulatory approvals received. Not under construction
 ■ Under construction, more than 50 percent complete
 ■ Under construction, less than or equal to 50 percent complete

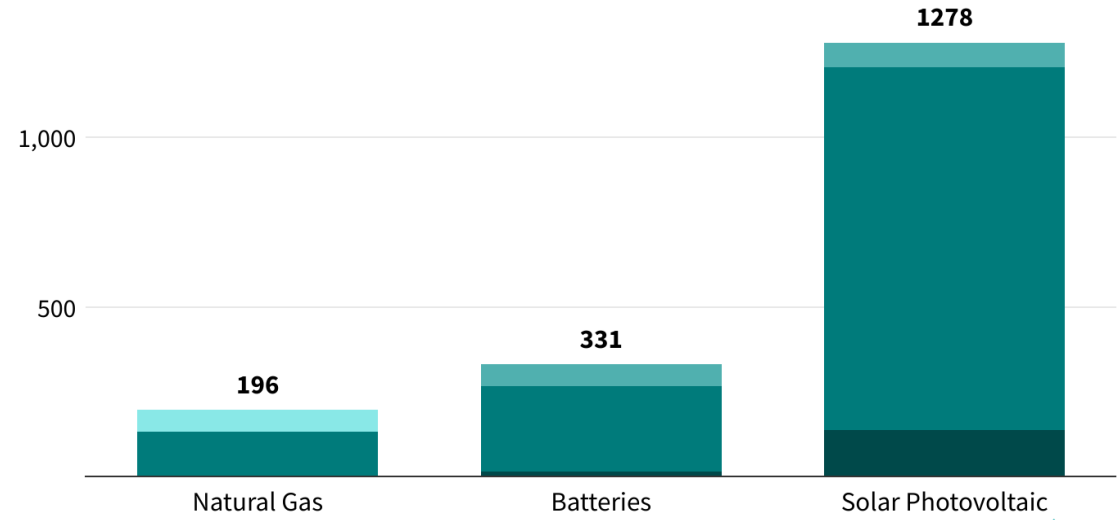


Chart: RMI • Source: EIA



# Industrial energy use drives state economy, and electricity is among cheapest in the region

The price of energy for industrial users is a key competitiveness driver for the state, putting pressure on regulators and developers to maintain the pace of deployment even as the grid gets cleaner and more reliable.

## South Carolina spends the most of its economic output on energy of any state in the region

Energy expenditures as a share of GDP, by state

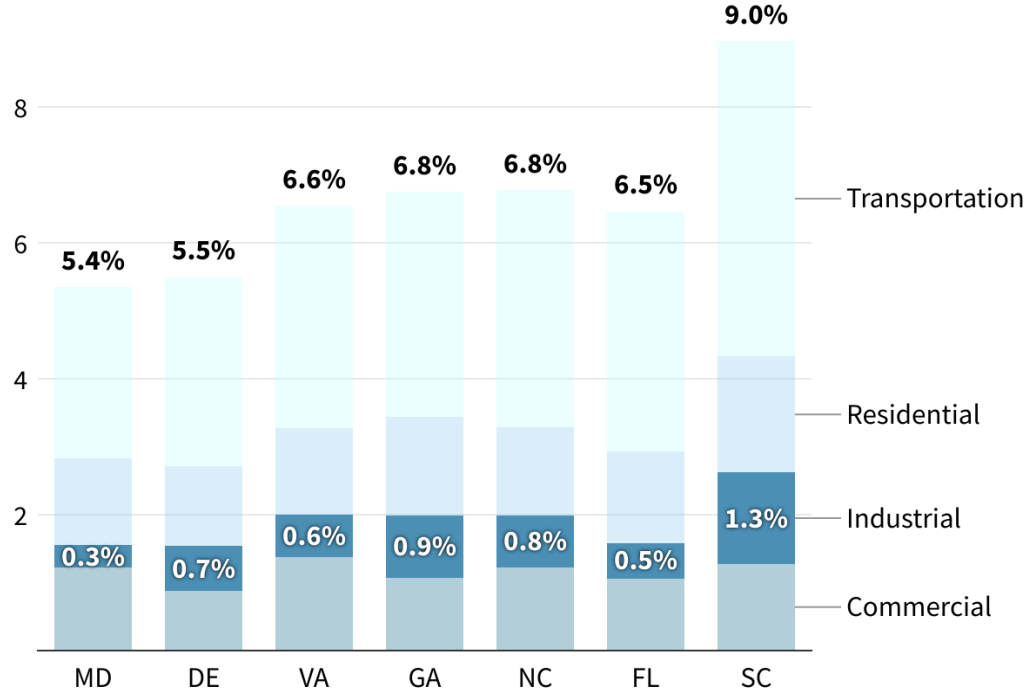


Chart: RMI • Source: EIA



## South Carolina has consistently had among the lowest industrial electricity prices in the region

Industrial electricity prices, cents/kwh

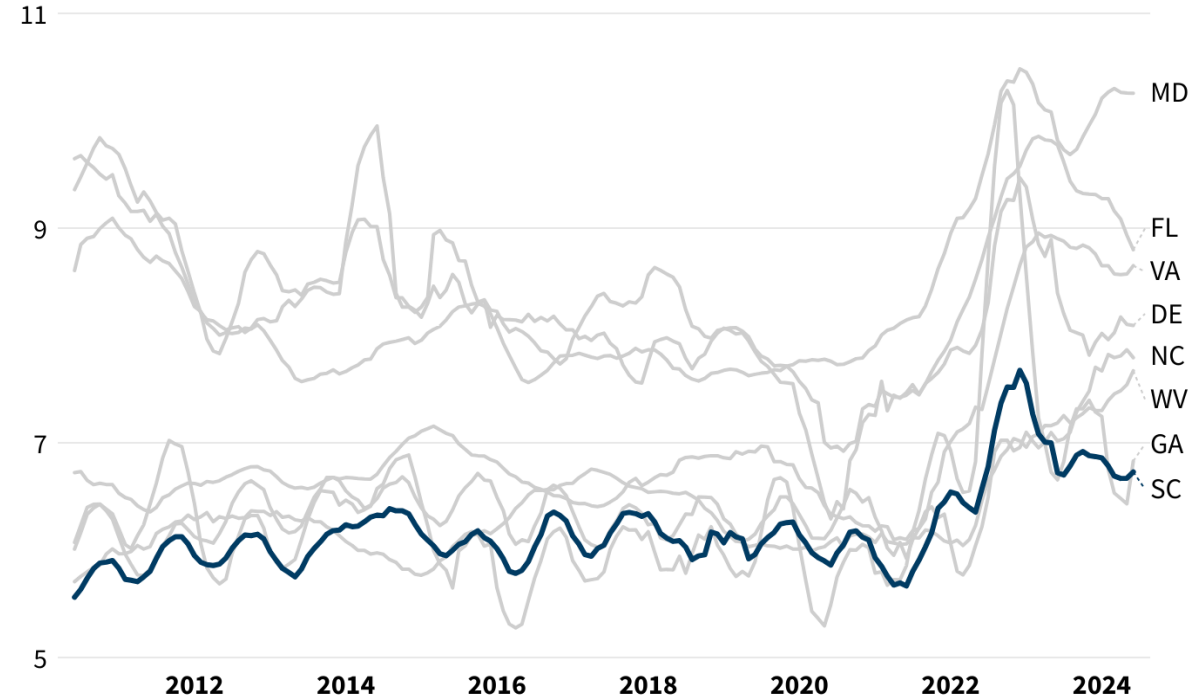


Chart: RMI • Source: EIA 861m

# This is just the beginning...

RMI's Energy Policy Simulator forecasts continued strong growth in renewable electricity, however this pace varies significantly by scenario.

## In an IRA-only Scenario, Solar Generation Surpasses Natural Gas Around 2030, but Never Catches Nuclear

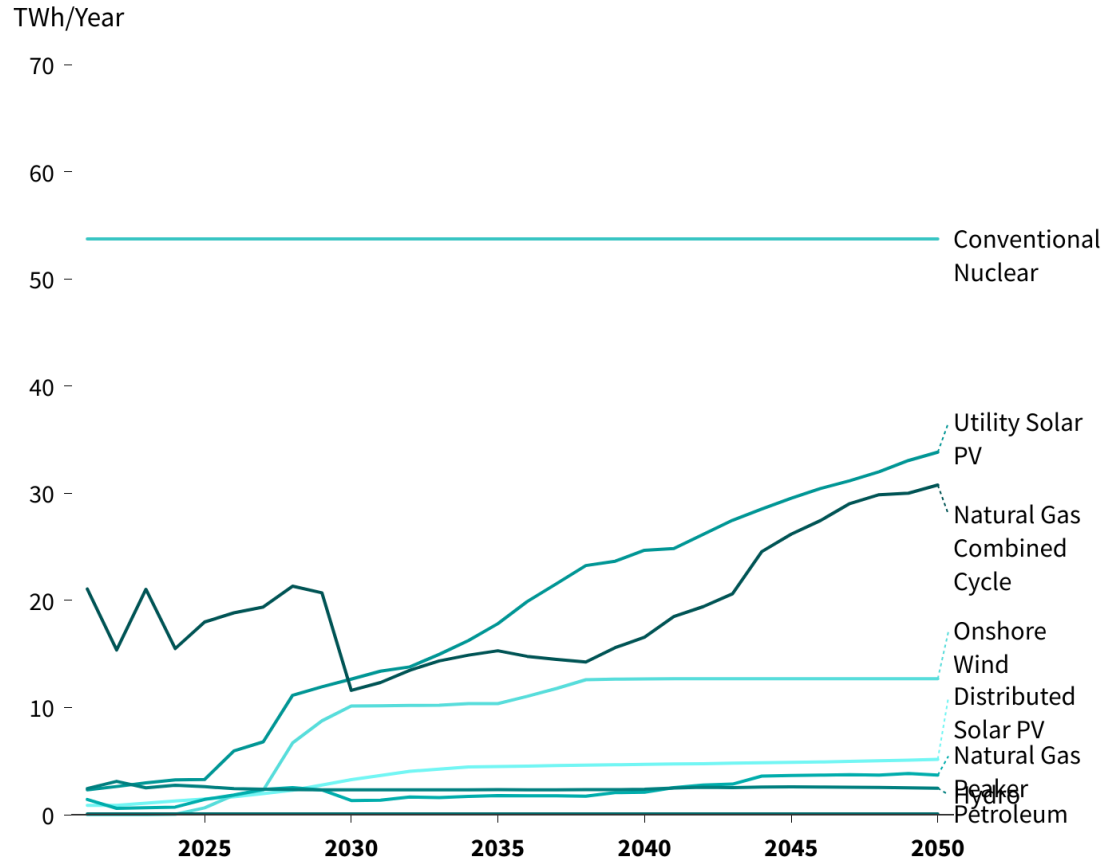


Chart: RMI • Source: Energy Policy Simulator



## In a Climate-Aligned Scenario, Solar & Wind Generation Surpass Natural Gas around 2032 and Nuclear by 2045

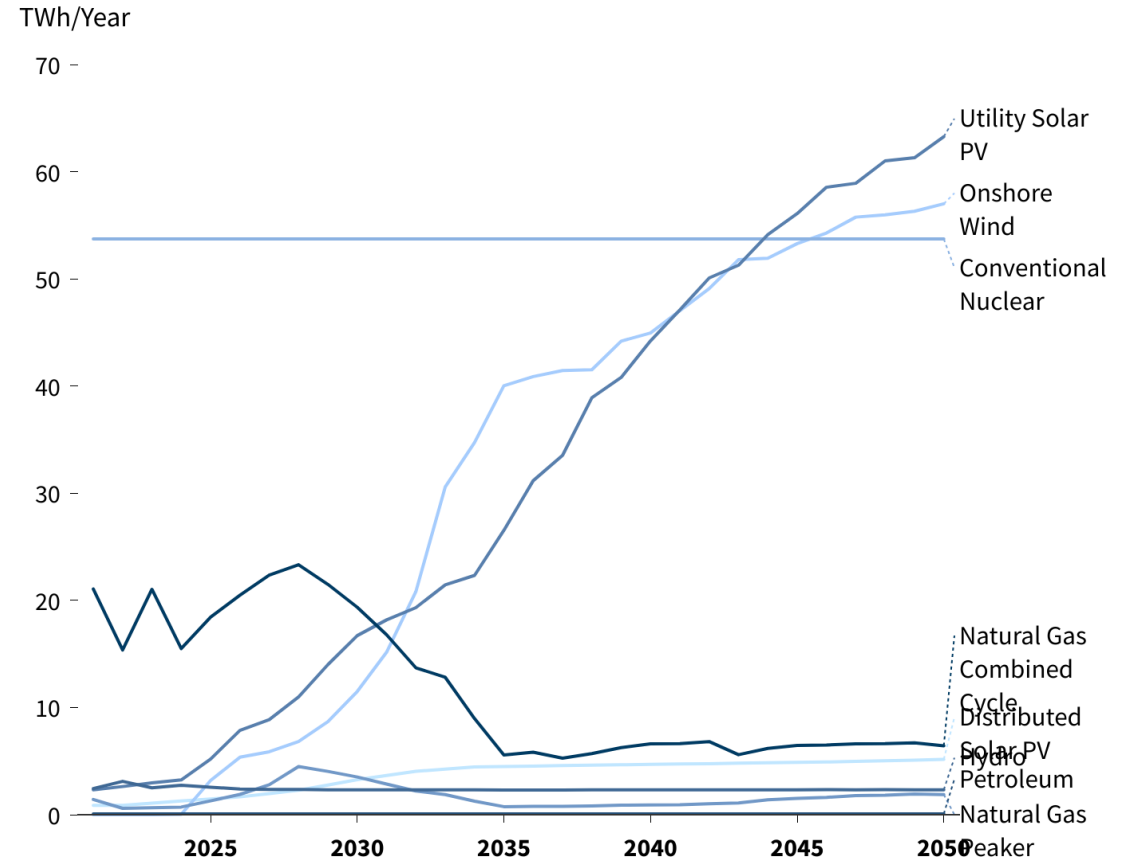


Chart: RMI • Source: Energy Policy Simulator

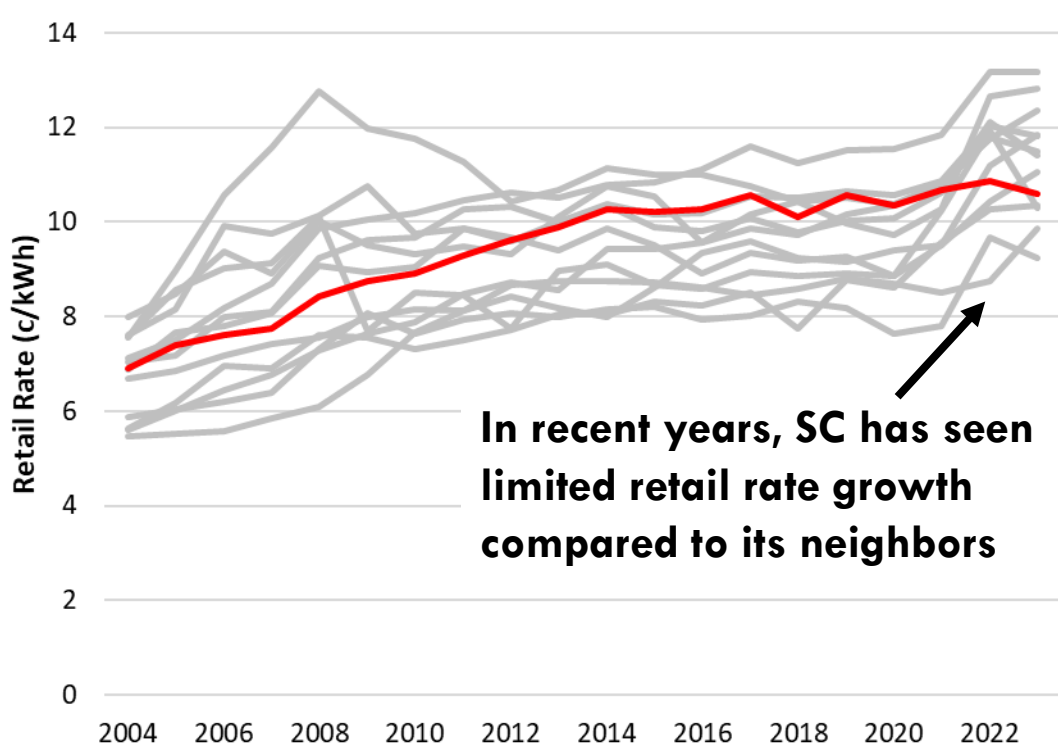




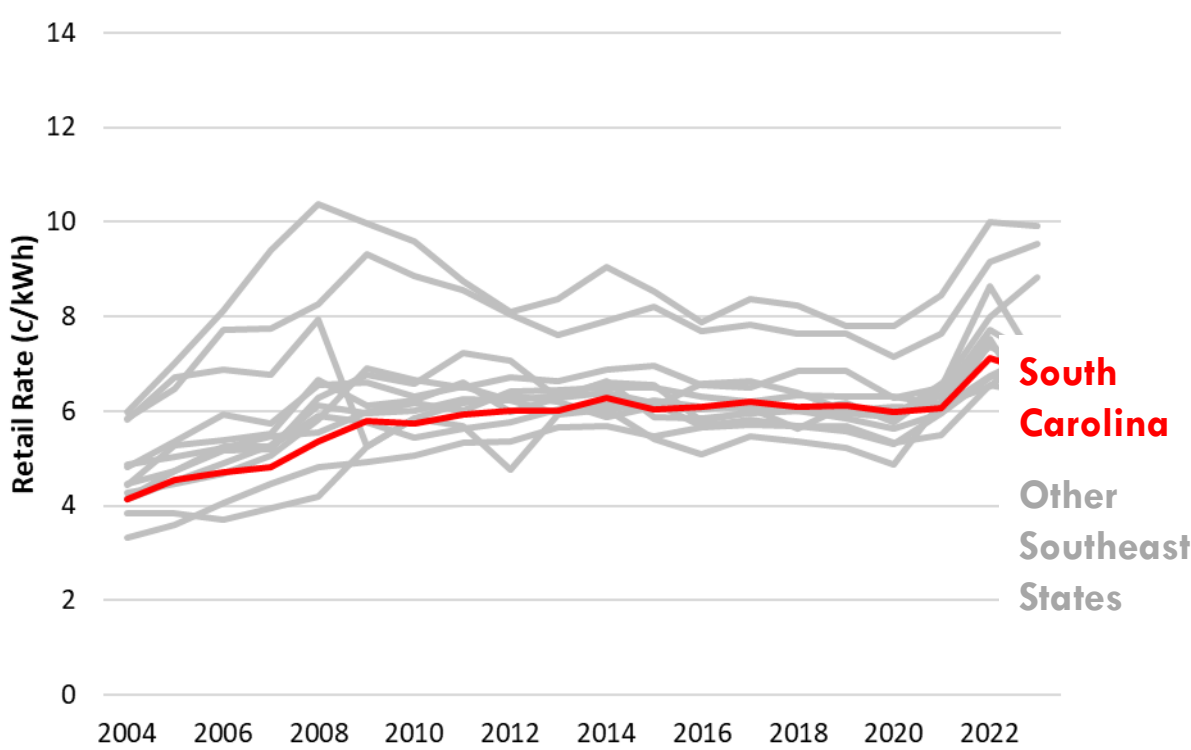
# South Carolina's Clean Electricity Opportunity

# South Carolina offers relatively affordable power, especially as neighboring states' C&I rates rise

### Commercial Customer Retail Rate

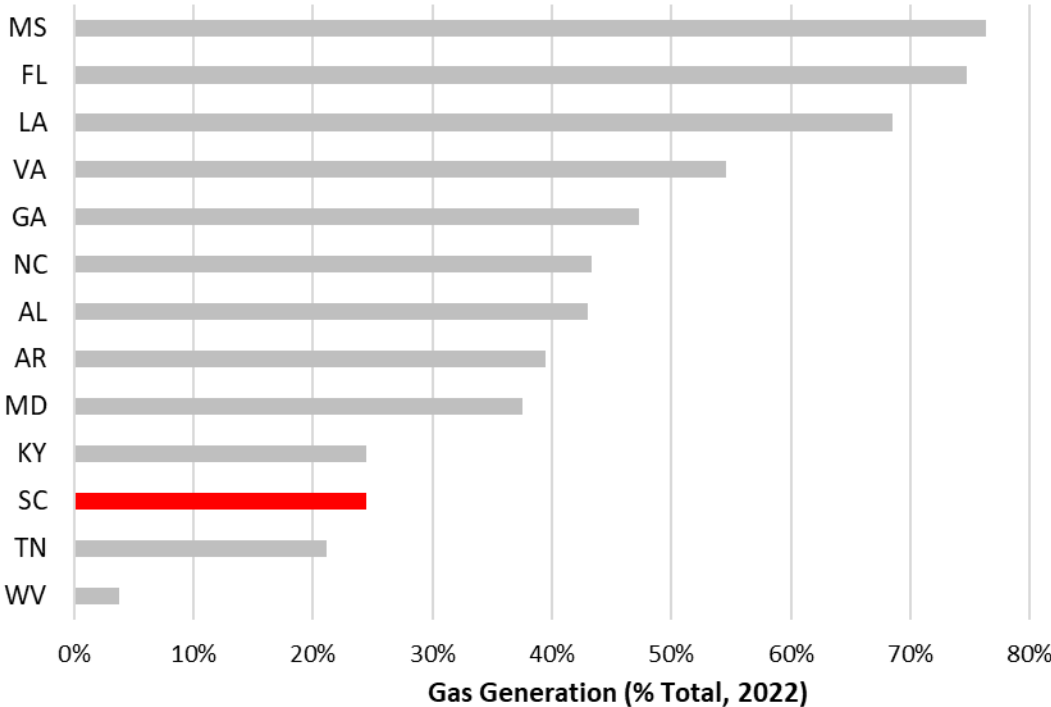


### Industrial Customer Retail Rate

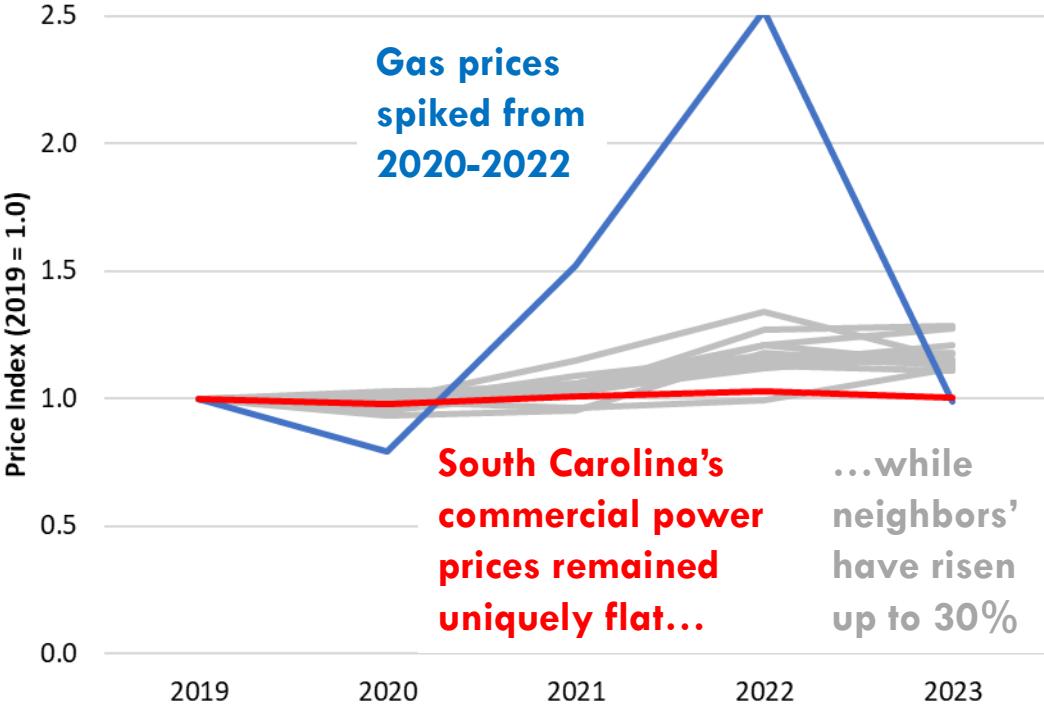


# Limited exposure to gas may be helping South Carolina keep power rates low

## Reliance on Gas for Power Generation

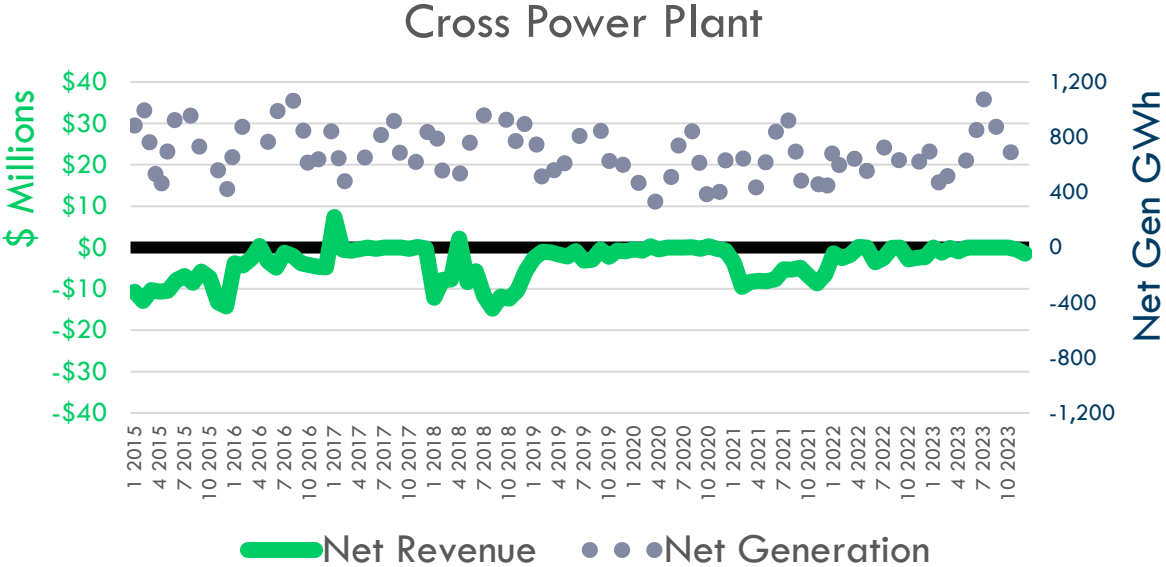


## Gas and Power Price Growth (2019-2023)



# However, electricity bills are negatively impacted by uneconomic coal operation

- SC utilities frequently operate coal resources at times when lower cost alternative resources (solar and battery storage) can be drawn upon to provide equivalent reliability and meet demand.
- This has led to \$406M in net revenue losses for South Carolina’s coal fleet, a cost borne by customers.



## The Impact of uneconomic dispatch of coal 2015–2023 in South Carolina

Gross losses	\$961M
Annual household bill impact (\$) per year*	\$144
Avoidable CO <sub>2</sub> emissions	86M tons

\* For customers of Santee Cooper

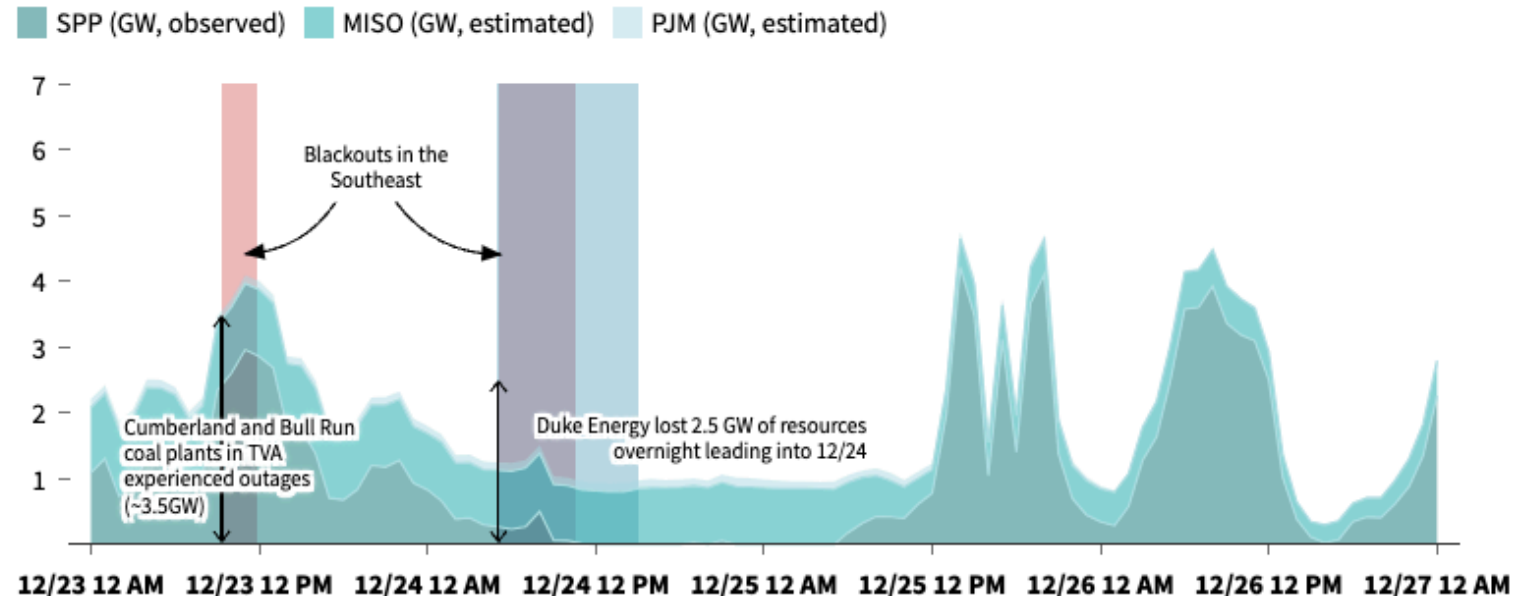
# During 2022's Winter Storm Elliott ~94,893 SC customers were affected by rolling blackouts

- Meanwhile, wind resources across the Eastern Interconnect that could have helped keep the lights on were curtailed (figure on right)\*
- ACORE study found that 1 GW of additional transmission expansion between PJM and Duke's utility area could have provided customers with electricity valued at over \$80M†

\* "Wasted Wind and Tenable Transmission during Winter Storm Elliott," RMI, 2023

† The Value of Transmission during Winter Storm Elliott, American Council on Renewable Energy, 2023

## Wind curtailments during Winter Storm Elliott



All times are in Central Standard Time. SPP reports the amount of wind curtailed in its footprint, while MISO and PJM do not explicitly do so. To estimate the amount of wind curtailed in MISO and PJM, the 2021 annual average curtailment rate from LBNL's "Land-Based Wind Market Report: 2022 Edition" was applied to the reported hourly wind generation profile in the two regions. TVA's periods of rolling blackouts are in red, while Duke Energy's outage period is in blue (purple indicates overlap).

Sources: PJM Generation, MISO Historical Generation Mix, SPP Historical Generation Mix, SPP Variable Energy Resource Curtailments, NC Policy Watch, AP News

# Investment approach to increase state's attractiveness via a cleaner power sector



Make it easier for companies to meet their goals

Make it easy for large, energy-intensive businesses to ensure their electricity demand is met with increasingly clean(er) electricity.



Incentivize cost reduction

Expose utilities, not only customers, to the cost of continued fossil fuel operations



Make the future grid cleaner

Grease the wheels for the rapid, scaled deployment of solar and grid-connected battery storage that utilities are planning for



Cost-effectively plan for reliability

Explore transmission and distribution infrastructure solutions that increase regional interconnection and enable greater interconnection of solar + storage

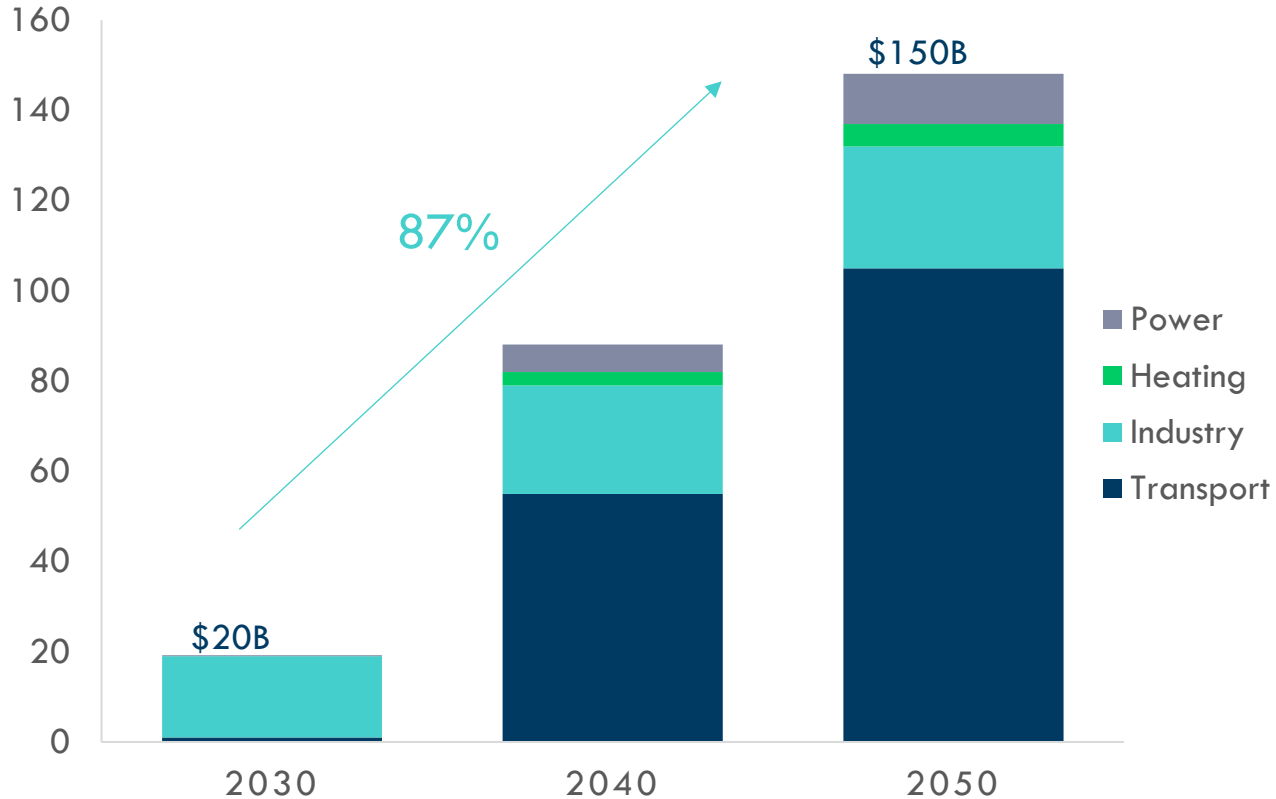


# South Carolina's Green Hydrogen Opportunity

# Hydrogen's versatility in decarbonizing multiple sectors unlocks a US economic market potential of \$150B and upward of 3.4 million jobs by 2050

## H2 Total Addressable Market (TAM)

\$ Billions



RMI – Energy. Transformed.

Source: [Pathways to Commercial Liftoff: Clean Hydrogen Report, Road Map to a US Hydrogen Economy](#)

## Federal funding supporting industrial decarbonization



U.S. DEPARTMENT OF  
**ENERGY**

**\$316 billion**  
financing and grants



**EPA**

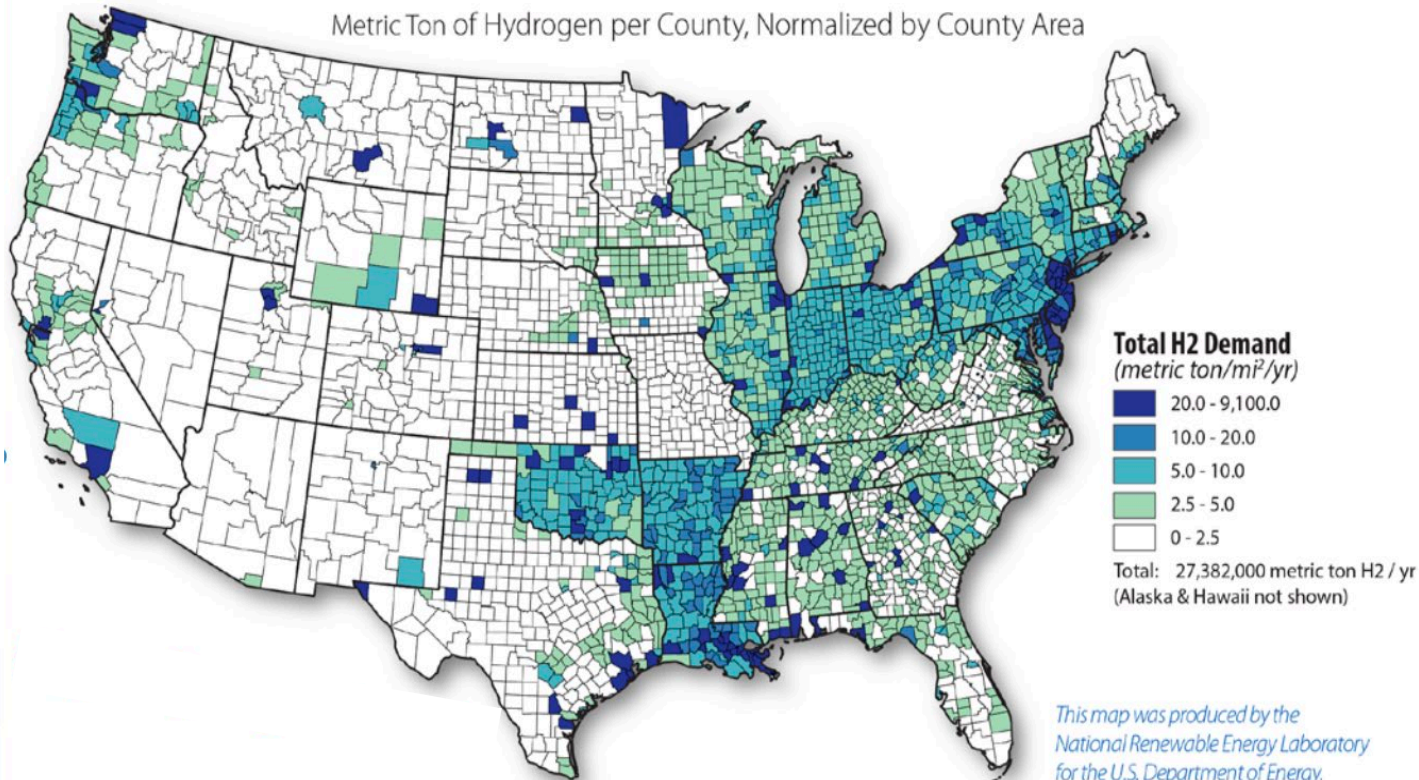
**\$32 billion**  
financing and grants



**\$339 billion**  
financing and grants

# Current demand in SC may be low, but there are economic growth, job creation opportunities

Metric Ton of Hydrogen per County, Normalized by County Area



This analysis represents the total hydrogen demand estimated to be achievable in the U.S. in the following sectors: refineries, biofuels, ammonia, metals, methanol, natural gas systems, and seasonal energy storage. Each industrial sector was summarized by county to identify the total hydrogen demand for the industrial sector and then normalized by area.

Data Source: NREL analysis

This map was produced by the  
National Renewable Energy Laboratory  
for the U.S. Department of Energy.  
Nicholas Gilroy, April, 2018



## Socioeconomic benefits

1

Clean hydrogen is a ready solution to decarbonize **heavy industry and transport**.

2

These assets are often located in regions and communities **historically underinvested in**.

3

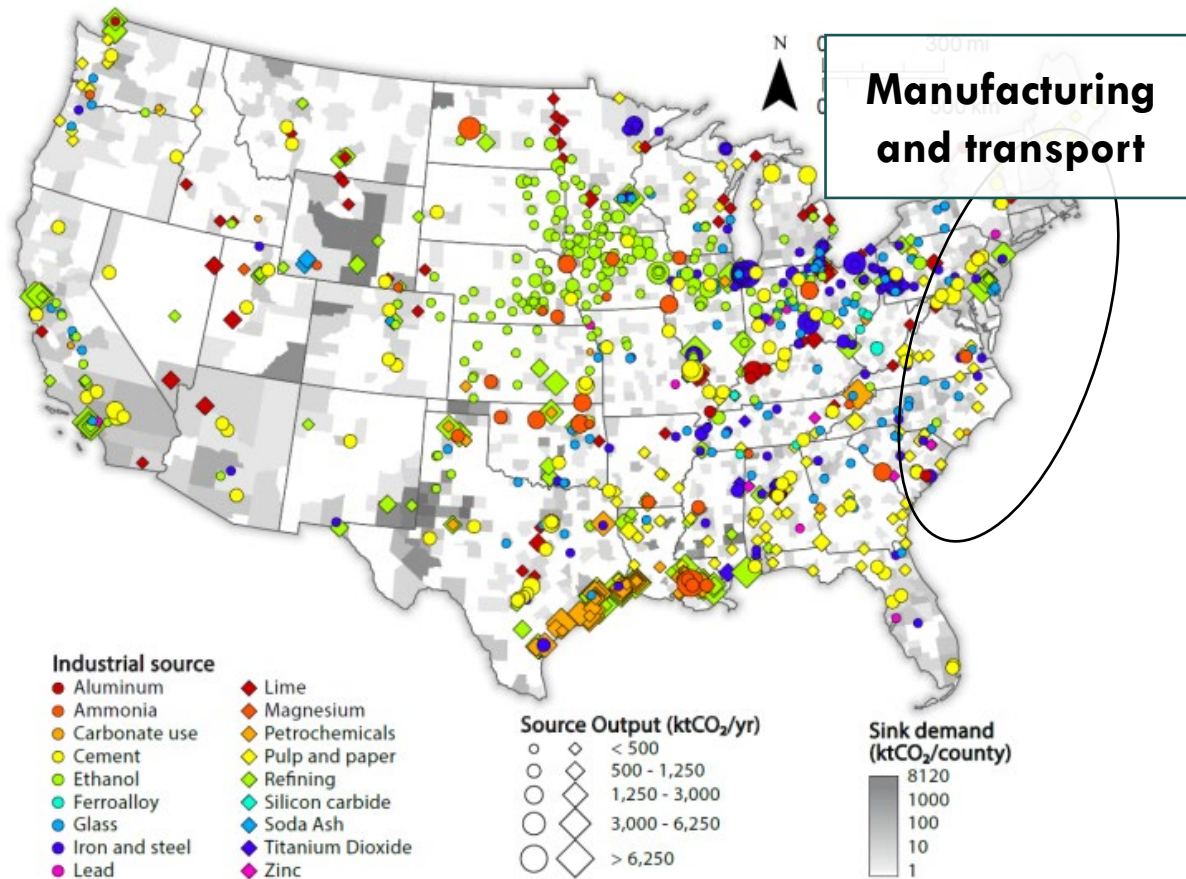
Investment will bring regional **supply chain development, job creation, innovation, and health benefits**.

**To unlock these benefits, hydrogen market growth must be supported.**

# Clean hydrogen offers a promising path

to decarbonize South Carolina's traditional heavy hydrocarbon manufacturing and transport industries

## Industrial plants across the United States



## Hydrogen opportunities

1

Clean hydrogen is a ready solution to decarbonize **high heat manufacturing**.

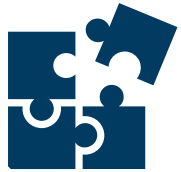
2

Hydrogen can be stored and used to **balance energy supply and demand**, reducing peak load and improving grid stability.

3

Clean hydrogen can **power heavy-duty vehicles** offering a zero-emission solution for long-haul transportation.

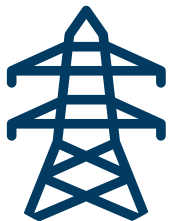
# Understanding how hydrogen fits into South Carolina's energy and economic growth is key to maximizing economic benefits and minimizing constraints



Contextualizing local hydrogen potential against a broader clean energy ecosystem will ensure public and private sectors prioritize the strongest opportunities for economic development.



Creation of an enabling environment for manufacturing and industrial demand alongside development of skilled labor will ensure SC has building blocks for success.



Establishment of supportive and streamlined frameworks for clean energy's physical and digital infrastructure are essential to accelerate the transition.



# South Carolina's Competitiveness Profile

# South Carolina's regions already specialize in industries relevant to key facets of the transition

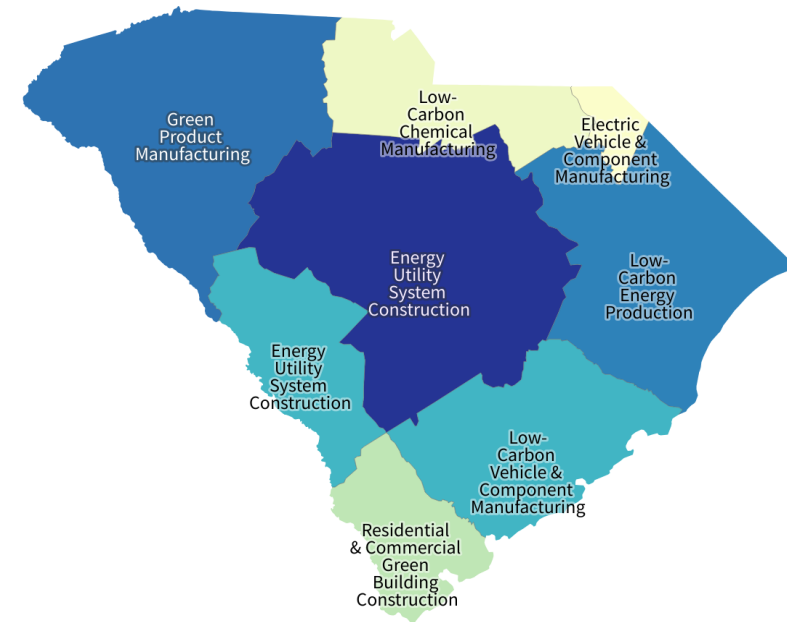
The state's existing strengths in various manufacturing industries, transmission construction, and heavy industry position it well to capitalize on emerging opportunities.

## Energy transition industry employment in South Carolina

Transition Subsector Category	Employment	Average Pay	Specialization
Low-Carbon Energy Production	2,060	\$129,218	3.2
Low-Carbon Energy Machinery & Equipment Manufacturing	2,342	\$80,574	2.8
Energy Utility System Construction	5,368	\$85,264	2.0
Green Product Manufacturing	11,384	\$59,909	1.3
Residential & Commercial Green Building Construction	54,953	\$70,105	1.2
Green Hydrogen & Sustainable Fuels	1,016	\$88,068	1.2
Low-Carbon Chemical Manufacturing	3,371	\$89,223	1.0
Electric Vehicle & Component Manufacturing	8,406	\$65,501	0.9

## South Carolina already specializes in industries well positioned to transition into clean energy

Employment Specialization



Map: RMI Graphic • Source: Census Bureau

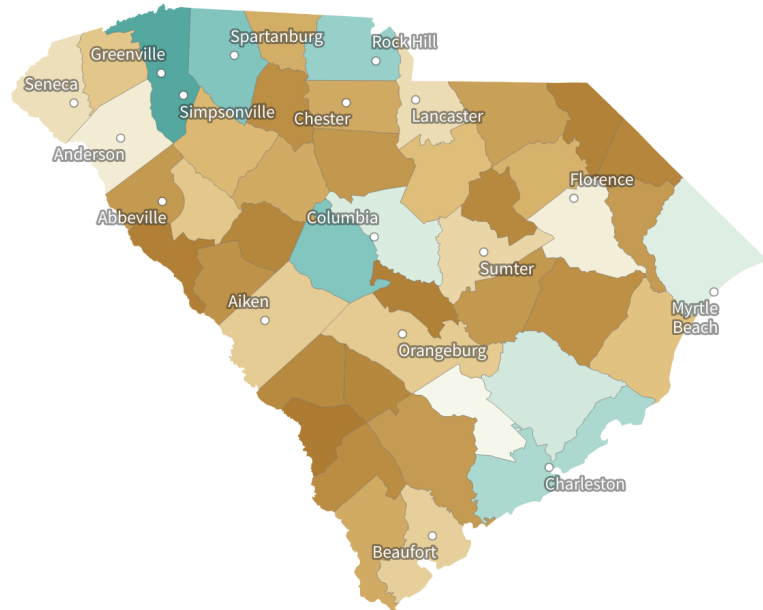
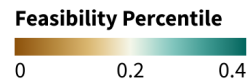


# This positions parts of the state to compete in different clean tech industries

The Greenville-Spartanburg area performs well in our feasibility scores for both battery manufacturing and green hydrogen.

## SC Feasibility: Battery & Component Manufacturing

County-level feasibility of transitioning into Battery & Component Manufacturing based on existing related industry presence

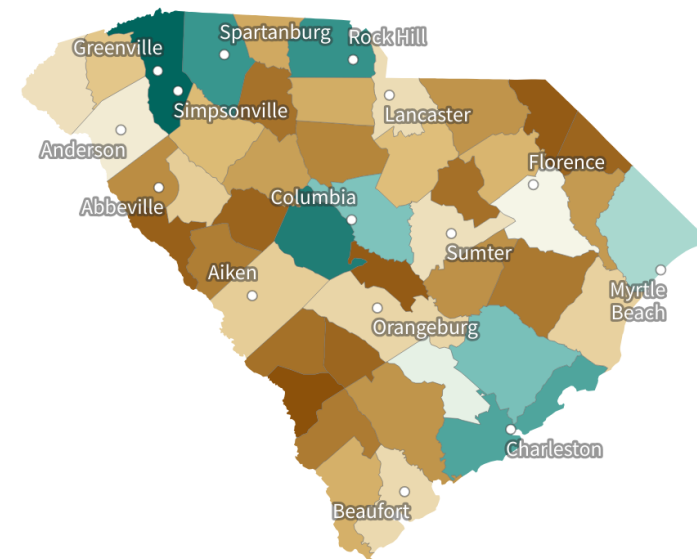
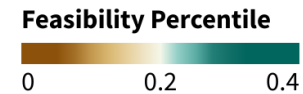


Map: RMI • Source: Clean Growth Tool



## SC Feasibility: Green Hydrogen

County-level feasibility of transitioning into Green Hydrogen, relative to all US counties, based on existing related industry presence



Map: RMI • Source: Clean Growth Tool



# Place-based prioritization of feasible industries

South Carolina should be strategically directing its scarce economic development resources to industries that best leverage its existing capabilities

## Feasibility of Industry Transitions in South Carolina

Top-right quadrant shows energy transition industries where South Carolina has the highest feasibility of transitioning into more complex industries.

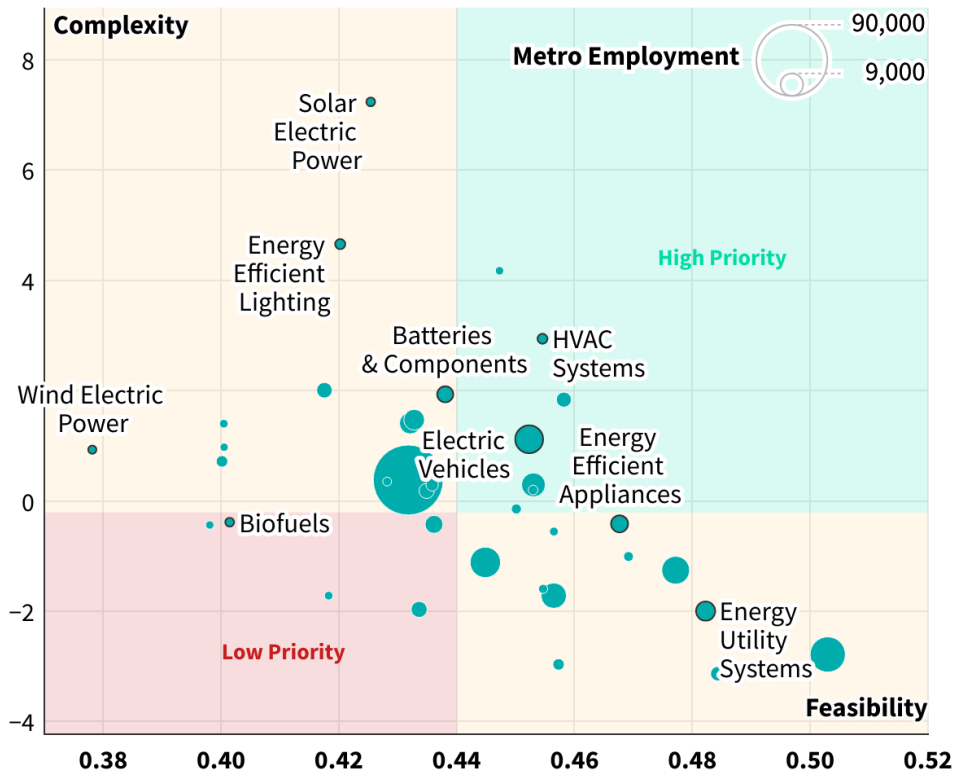


Chart: RMI Graphic • Source: Great Lakes Development Tool • Created with Datawrapper

## Feasibility of clean energy industries across South Carolina Metros

	1	2	3	4	5
Augusta-Richmond County, GA-SC	Energy Utility Systems	Heat Pumps	Green Buildings	Low-Carbon Cement & Concrete	Low-Carbon Construction Machinery
Charleston-North Charleston, SC	Energy Utility Systems	Green Buildings	Low-Carbon Cement & Concrete	Low-Carbon Vehicles	Solar Electric Power
Charlotte-Concord-Gastonia, NC-SC	Heat Pumps	Low-Carbon Construction Machinery	Low-Carbon Industrial Equipment	Electric Vehicle Components	Green Plastics
Columbia, SC	Energy Utility Systems	Green Buildings	Heat Pumps	Low-Carbon Cement & Concrete	Green Hydrogen
Florence, SC	Energy Utility Systems	Green Buildings	Heat Pumps	Low-Carbon Cement & Concrete	Green Hydrogen
Greenville-Anderson, SC	Energy Utility Systems	Low-Carbon Construction Machinery	Electric Vehicle Components	Heat Pumps	Green Plastics

# Transitions do not happen on their own; policy matters

South Carolina has not historically used its policy levers to effectively encourage the energy transition.

## South Carolina has very few recommended climate policies in place

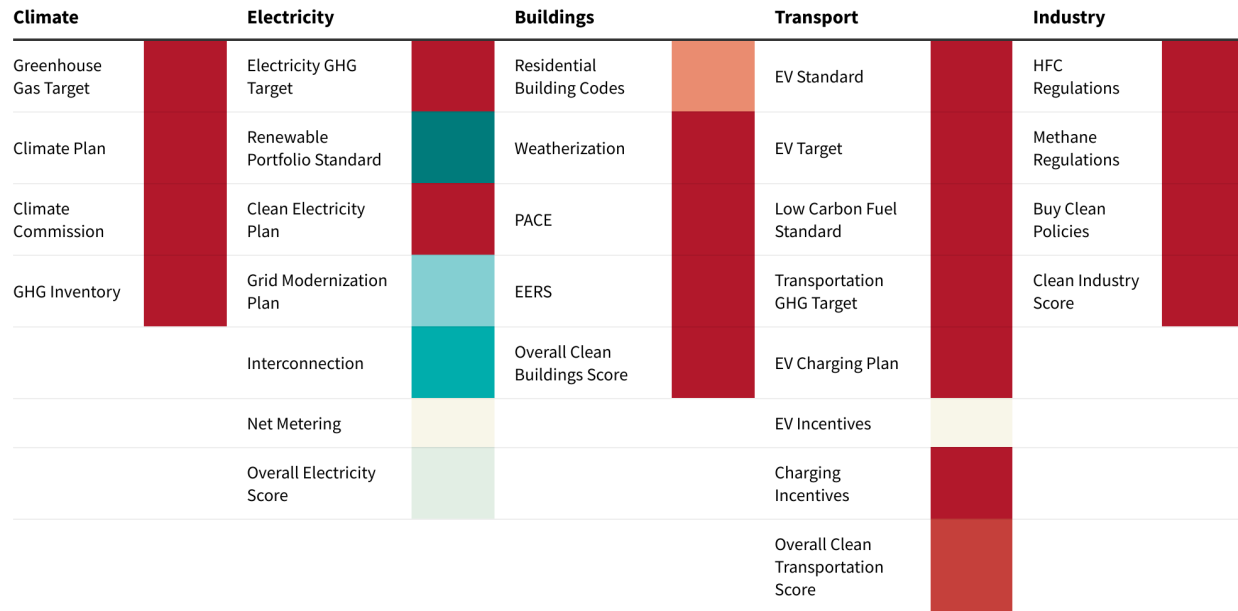


Table: RMI Graphic • Source: XChange Policy Tracker



## South Carolina has the weakest climate policies in the region

Normalized index of Xchange climate policy data, by topic area. Each has a maximum score of 1.

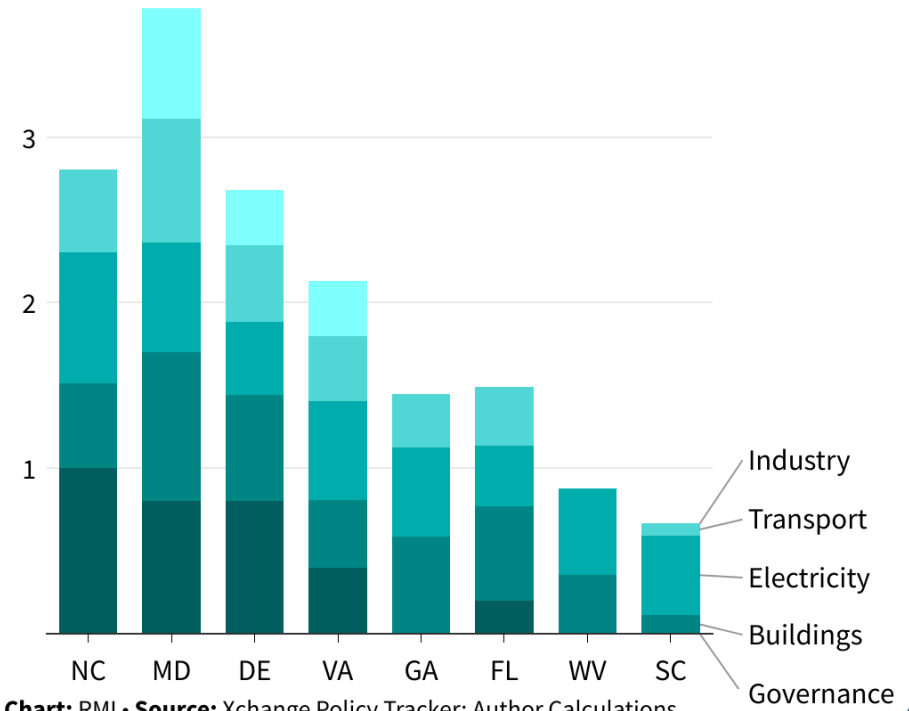


Chart: RMI • Source: Xchange Policy Tracker; Author Calculations



# Clean energy economic development policy does not equal climate policy

Climate policy approaches to date have been too partisan in nature and have been a poor predictor of clean investment attraction.

## Climate policy follows partisanship

Some of the states with the most ambitious climate policies have seen the least clean energy investment since 2018, and vice versa.

● Battleground ● Lean Democratic ● Lean Republican ● Strong Democratic ● Strong Republican

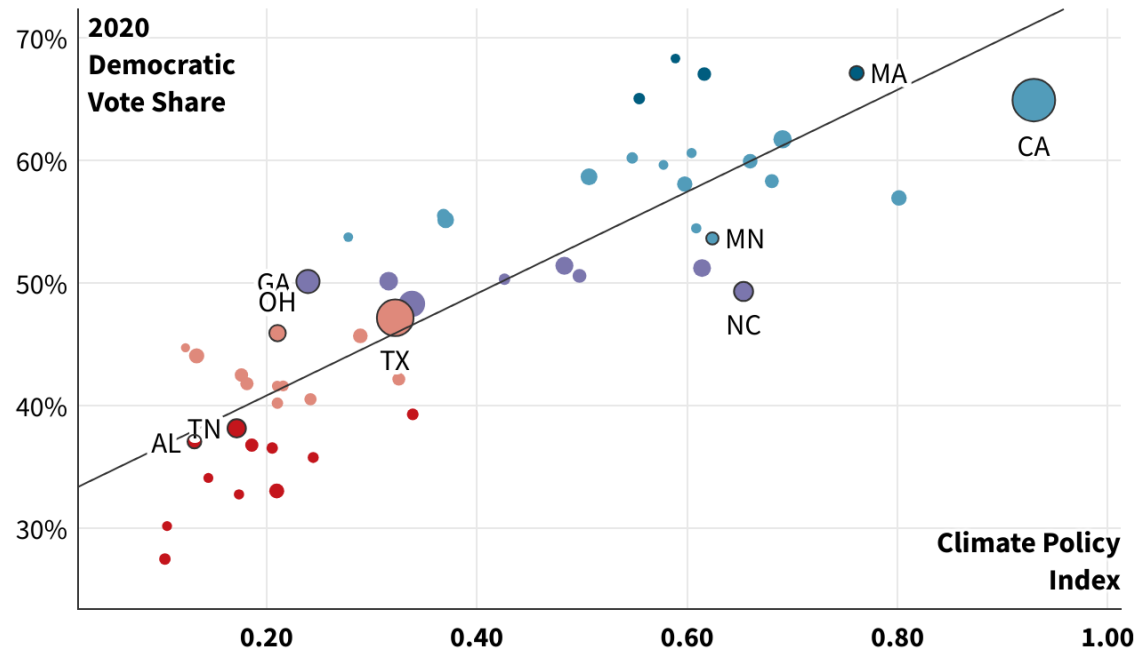
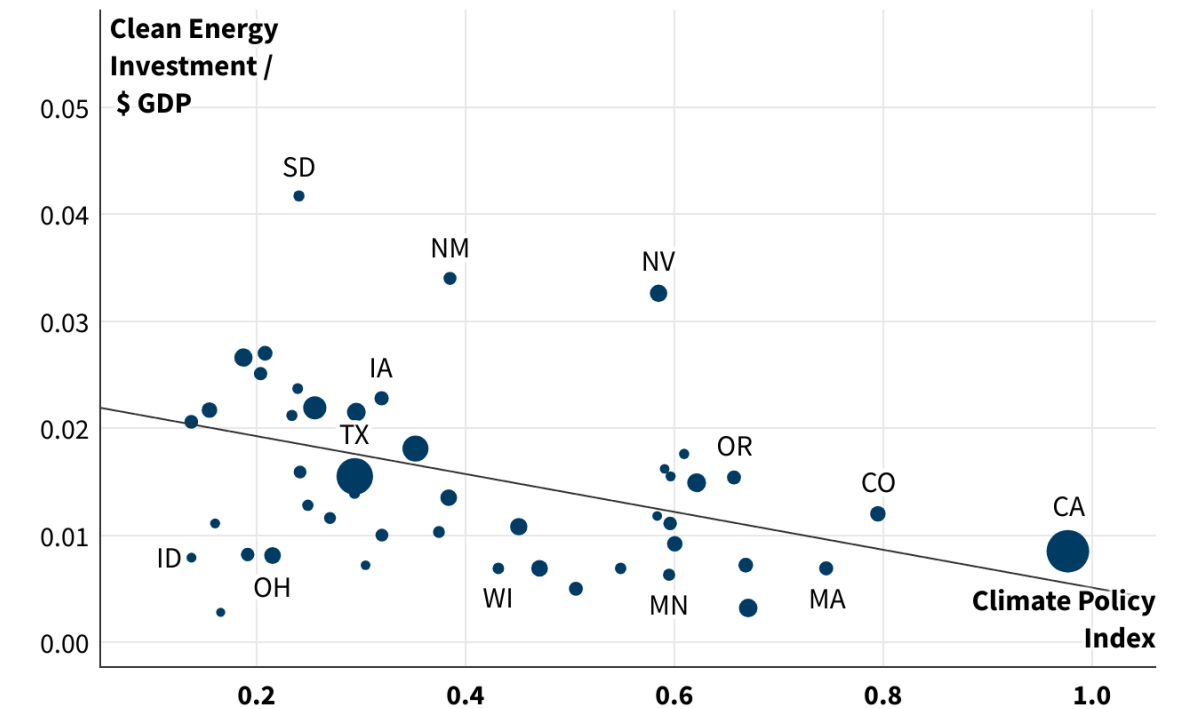


Chart: RMI Graphic • Source: Clean Investment Monitor; Climate Xchange

## Clean Energy Investment Doesn't Necessarily Follow Climate Policy

Some of the states with the most ambitious climate policies have seen the least clean energy investment since 2018, and vice versa.



Source: Clean Investment Monitor; Climate Xchange

# Industrial strategy is industry-specific

A more effective approach will be to identify priority industries and develop targeted strategies for unlocking investment.

## EV battery manufacturing policy gap analysis

Industrial policies to develop a competitive EV battery manufacturing industry in the Great Lakes are unevenly applied across the region. Michigan is leading among Great Lakes states.

Domain	Policy	Instrument	Federal	Michigan	South Carolina
Strategic Coordination	Technology Roadmaps		Strong	Moderate/TBD	Weak
	Inter-Agency Coordination		Moderate/TBD	Strong	Strong
	Public-Private Partnerships		Moderate/TBD	Moderate/TBD	Moderate/TBD
Demand-Pull	Consumer Mandates		Weak	Weak	Weak
	Buy Clean		Weak	Weak	Weak
	Consumer Rebates/Tax Incentives		Strong	Moderate/TBD	Weak
	Public Procurement		Strong	Strong	Weak
Supply-Push	Strategic Industry Targeting		Strong	Strong	Strong
	Place-Based Targeting		Strong	Moderate/TBD	Strong
	Accountability Mechanisms		Moderate/TBD	Moderate/TBD	Moderate/TBD
	Supply Chain Gap Analysis		Strong	Moderate/TBD	Strong
Input Investments	Entrepreneurship & Innovation Policies	R&D Tax Credits	Weak	Strong	Strong
		Cluster Strategies	Strong	Strong	Strong
	Workforce Development	Targeted Higher Education Support	Weak	Strong	Weak
		Workforce Gap Analysis	Weak	Strong	Strong
		Curriculum Development	Weak	Strong	Strong
		Job Training Incentives	Weak	Strong	Strong
	Clean Electricity & Infrastructure	Clean Energy Mandates	Weak	Strong	Weak
		Utility Reform	Weak	Strong	Moderate/TBD
		Tax Credits	Strong	Weak	Strong
	Capital Availability	Green Bank	Strong	Weak	Weak
VC De-Risking		Weak	Weak	Weak	
Industrial Site Register		Weak	Moderate/TBD	Strong	
Land	Green Infrastructure Connectivity Fund	Moderate/TBD	Moderate/TBD	Moderate/TBD	
	Permitting & Siting Reform	Weak	Moderate/TBD	Strong	
	Project Ombudsman	Weak	Moderate/TBD	Strong	

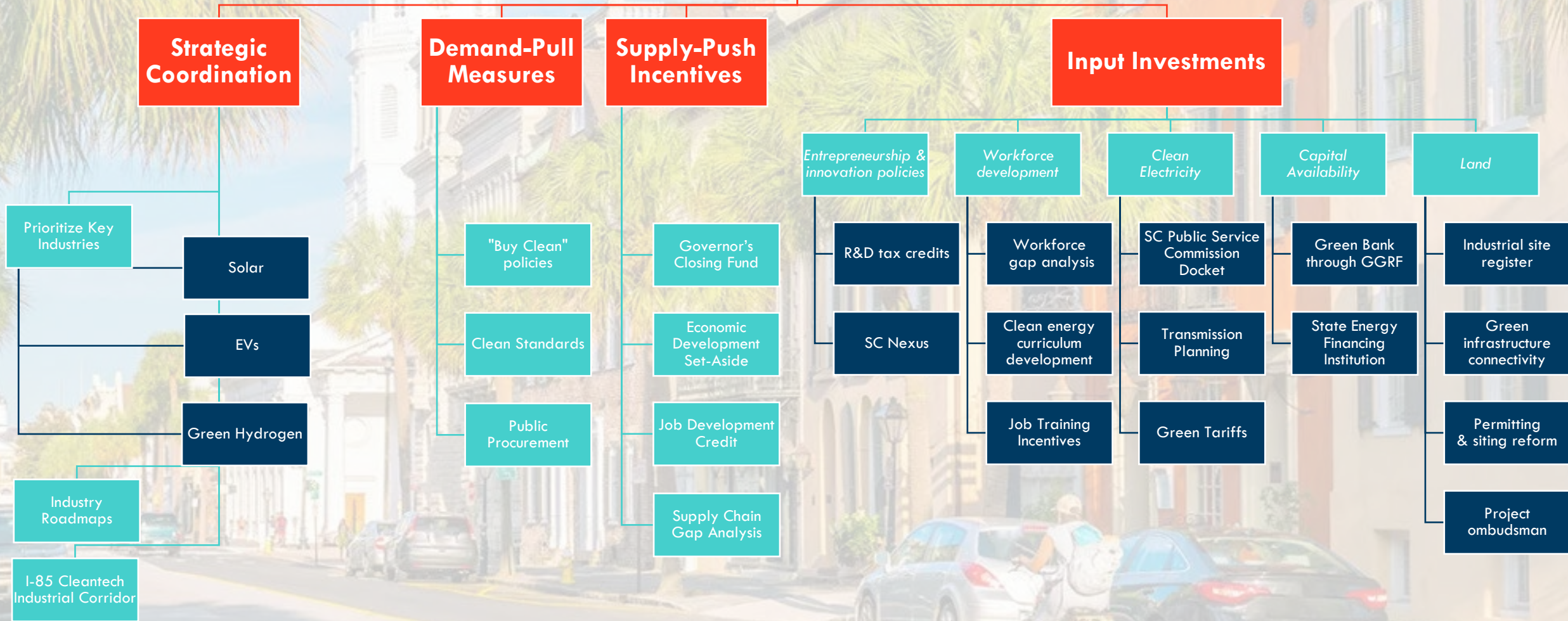
■ Weak  
■ Moderate/TBD  
■ Strong

Table: RMI Graphic • Source: RMI analysis



# South Carolina's Opportunities for a Cleantech-Led Economic Development Strategy

# A Clean Energy-Led Industrial & Economic Development Strategy for South Carolina



# Emerging opportunities: Cleantech-led Economic development strategy

## Economic Development Plan

Last plan was 2020–2023, and the energy/policy environment has changed dramatically.

## Industry Roadmaps

A new plan should dive into strategic industries, identifying specific investment barriers and valuable solutions.

### Strategic Industry Coordination

- EV supply chain
- Green building construction
- Solar electricity
- Nuclear
- Low-carbon chemicals
- Green hydrogen

### Place-Based Coordination

- I-85 Cleantech Industrial Corridor
- SC Nexus

### Demand-Pull Mechanisms:

- "Buy Clean"
- Clean electricity/vehicle/building/industry standards

### Production Incentives

- Governor's Closing Fund
- Economic Development Set-Aside
- Job Development Credit

### Input Investments:

- Regional transmission
- Innovation strategy
- Workforce strategy
- Green Bank
- SEFI eligibility

# Emerging opportunities: I-85 Cleantech Corridor

## I-85 Cluster Strategy

A series of large projects in the EV Supply Chain could anchor a cleantech cluster along the I-85.

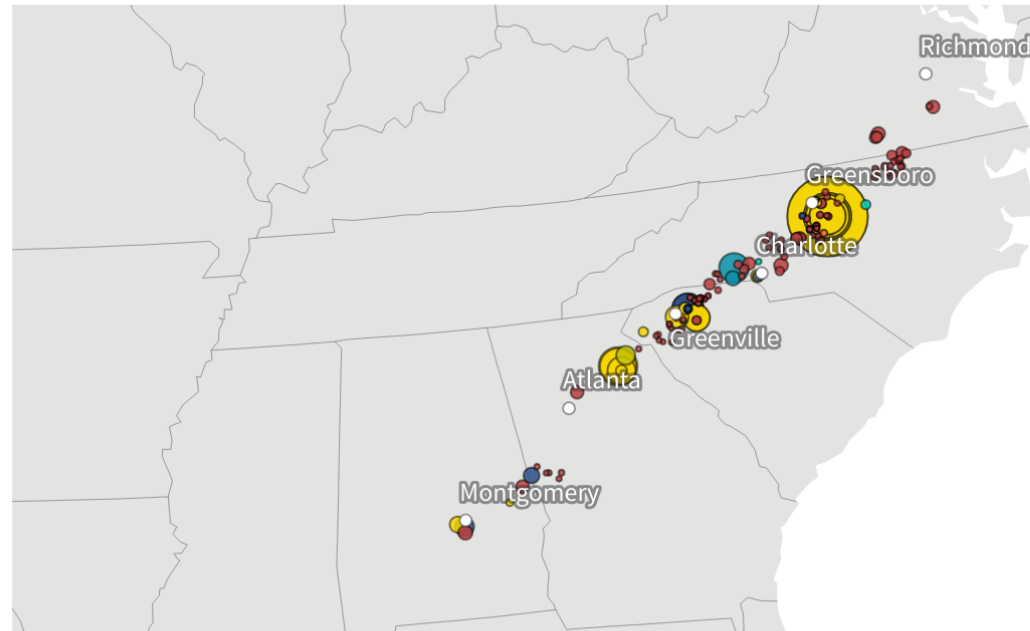
## Regional Coordination

A shared investment attraction and retention strategy could "lift all boats."

## The I-85 Clean Industrial Corridor

Over \$40 billion worth of clean energy projects have been announced, are under construction, or fully operating along the I-85 corridor

■ Batteries ■ Critical Minerals ■ Fueling Equipment ■ Other ■ Solar ■ Storage ■ Zero Emission Vehicles



Map: RMI • Source: Clean Investment Monitor

# Emerging opportunities: State Energy Financing Institution (SEFI)

*Why should states establish a SEFI Program?*

Attract  
private  
capital



Pass on  
cost  
savings



Drive job  
creation



Grow local  
tax base



Improve  
air quality



Raise  
additional  
financing

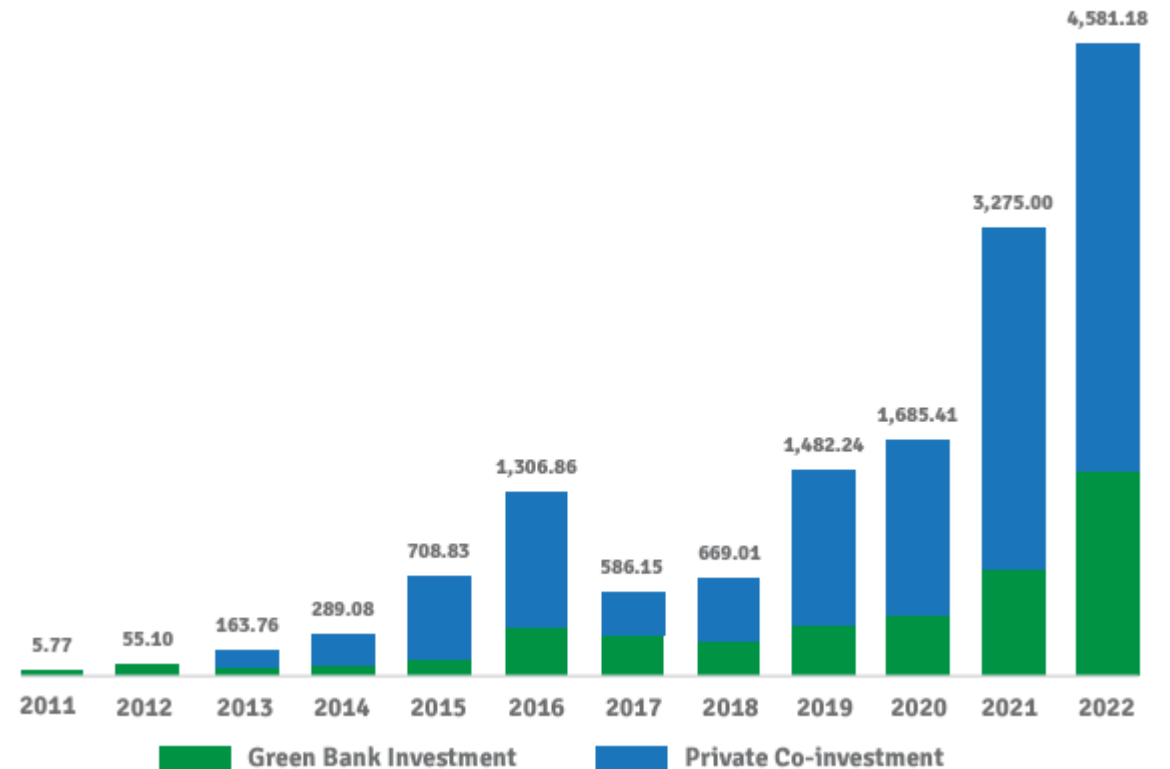


- By funding or financing as little as **1%–5% of project costs** through an eligible SEFI, states can now strategically access \$40 billions in low-interest federal financing for large economic development projects.
- An LPO loan will typically cover **60%–70% of the total costs**, and project loans should typically be greater than \$100 million.
- The state or a project sponsor may form a **special purpose vehicle (SPV)** to aggregate smaller projects into a portfolio that can use smaller portions of the \$100 million loan.

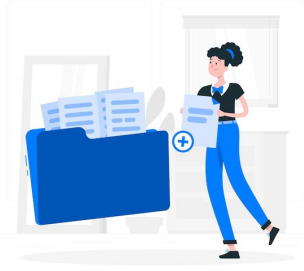
# Emerging opportunities: Greenhouse Gas Reduction Fund (GGRF) & South Carolina Green Bank

- Green banks are an innovative financial tool for climate-conscious economic development.
  - Green banks sustainably facilitate the expansion of renewable energy and disaster-resistant infrastructure by strategically allocating and growing an initial endowment of funds
- Green Banks can serve multiple roles:
  - Connector, risk mitigator, direct lender, bundler
- Replicable model: South Carolina Transportation Infrastructure Bank
- Opportunity is multiplied thanks to the GGRF

American Green Bank Consortium Investment by Year  
(\$, in millions)

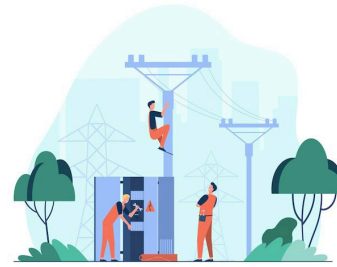


# Emerging opportunities: Ensure clean electricity demands from industrial users are met



## SC Public Service Commission

Open a docket to design fair and transparent rates for large customers, including exploring new tariff options.



## Transmission Planning

Work with state legislators to promote multi-value long-term transmission planning. Advocate for regional grid coordination with neighboring states.



## Green Tariffs

A standardized option for commercial and industrial customers to purchase bundled clean power from a specific clean generation facility through a special utility rate design.



## Customized Tariffs

Bespoke tariffs that meet customer needs while maintaining regulatory priorities (e.g., the Clean Transition Tariff in Nevada).

# Emerging Opportunities: Miscellaneous

## Innovation Strategy

### SC Nexus

Designated EDA Tech Hub.  
Received \$45M federal grant  
and allocated \$15M in latest SC  
budget.

## Intra-Gov Coordination

### Power SC

Alignment of key SC  
government stakeholders to  
develop strategic plans to  
ensure state has sufficient  
energy capacity.

## Strategic Planning

### Priority Climate Action Plan

Leverage existing PCAP to  
advance climate action and  
economic development.

## Grid Infrastructure

### Utility Collaboration

Capitalize on utility clean  
energy programs by increasing  
awareness among customers  
and looking for examples for  
utility/customer partnerships.

## Workforce Development

### EV Workforce Assessment

Further workforce assessments  
should be conducted in  
emerging and/or growing  
cleantech sectors like nuclear,  
transmission, and hydrogen.

## Investment Incentives

### Tax Credit Reform

South Carolina has >30  
incentives that could better  
target clean, strategic  
industries for economic  
growth.



**Thank you  
and stay in  
touch!**

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