



Palmetto Air Quality Collaborative (PAQC)

EPA Climate Pollution Reduction Grant (CPRG)

Association of South Carolina Energy Managers
Fall 2025 Conference

October 7, 2025



Outline

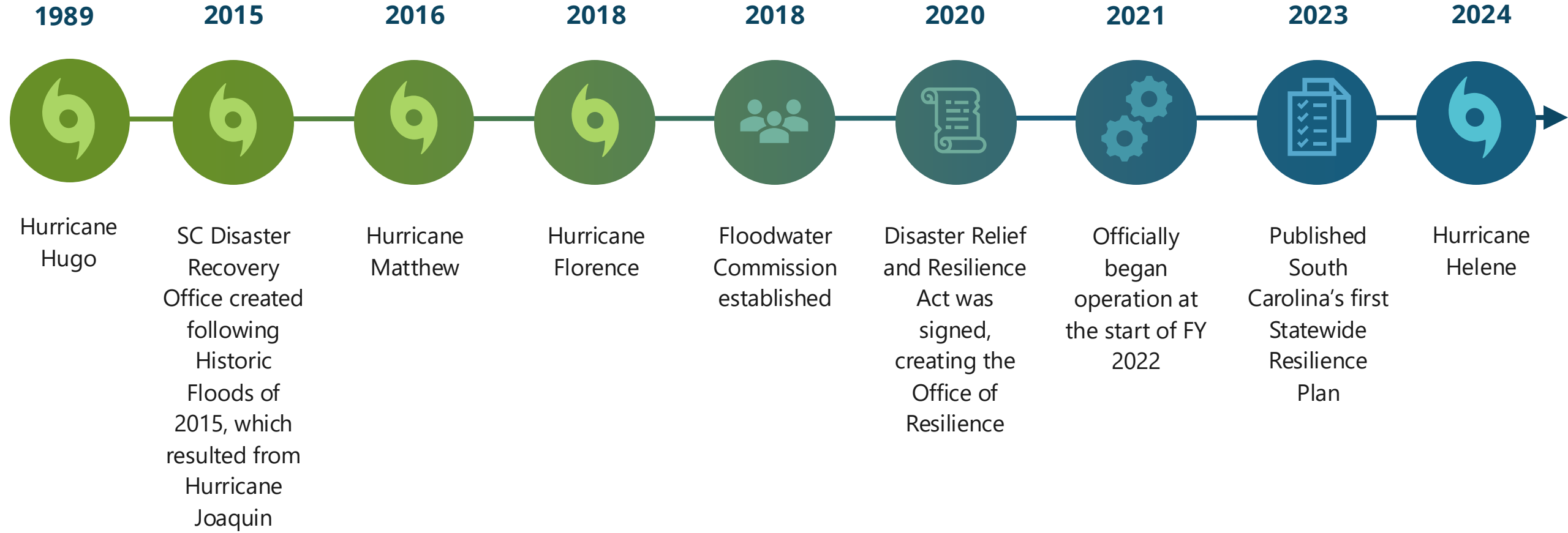
- South Carolina Office of Resilience (SCOR)
- EPA Climate Pollution Reduction Grant (CPRG) Program
- Palmetto Air Quality Collaborative (PAQC)
 - The South Carolina statewide initiative
- Clean Air Strategies for South Carolina (CASSC)
 - Deliverable due on December 1

Mission

SCOR lessens the impact of disasters on the communities and citizens of South Carolina by planning and coordinating statewide **resilience, long-term recovery, and hazard mitigation.**



History



What is Resilience?

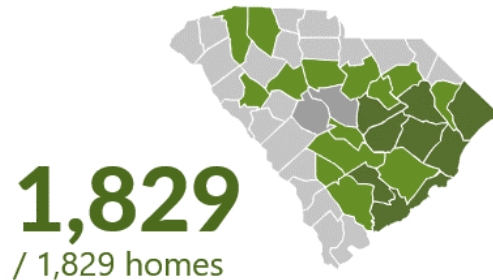
The ability of communities, economies, and ecosystems to **anticipate, absorb, recover, and thrive** when presented with environmental change and natural hazards.

Disaster Recovery

SCOR has used three HUD Community Development Block Grant- Disaster Recovery (CDBG-DR) grants to repair, replace, or rebuild 3,459 homes damaged by hurricanes and flooding.



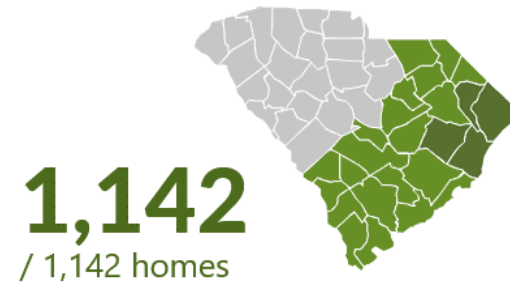
2015 SEVERE STORM
\$126 million | 100% complete



Completion date: September 2021

Within 6-year allotment

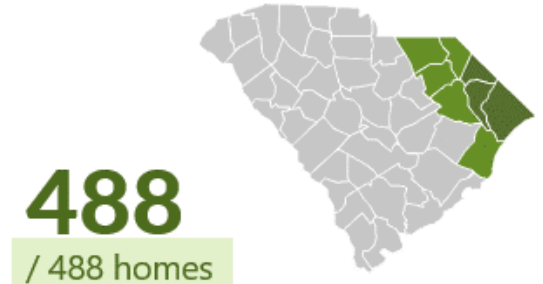
2016 HURRICANE MATTHEW
\$95 million | 100% complete



Completion date: December 2022

Within 6-year allotment

2018 HURRICANE FLORENCE
\$72 million | 100% complete



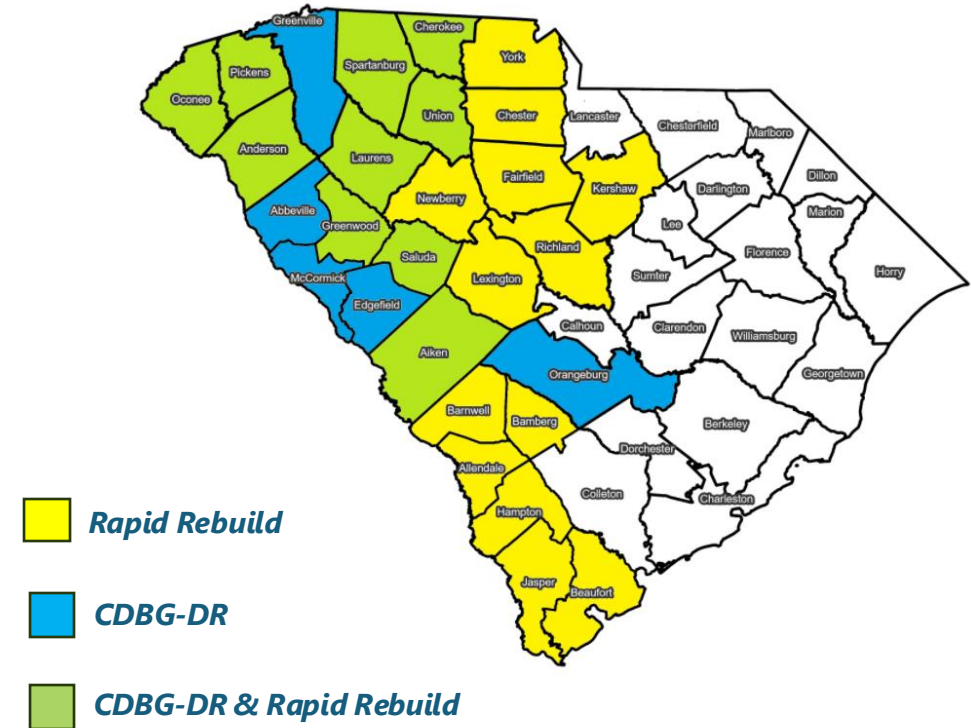
Completion Date: October 2024

Within 6-year allotment

**Note: Richland & Lexington counties received CDBG-DR grants for the 2015 Severe Storm and therefore were not served by our programs.*

2024 Hurricane Helene SCOR Recovery Programs

- SCOR will administer a \$150,354,000 Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) grant to South Carolina
- SCOR will use state dollars from the Disaster Reserve Fund to repair destroyed homes in impacted counties (Rapid Rebuild)
- SCOR is coordinating with, providing cases to, and identifying funds for Volunteer Organizations Active in Disaster (VOADs)



Disaster Case Management Program

- Helps disaster survivors of Hurricane Helene navigate the recovery process, assists them in resolving all their unmet needs, and refers them to resources
 - 134 additional Temporary Grant employees
 - 4 Regional Offices (Spartanburg, Pickens, Aiken, and Richland)
 - Conducting mobile intakes in all 28 impacted counties
 - 15,000+ contacts to date
 - Identifying applicants for the CDBG-DR program, the Rapid Rebuild program, and VOAD repair programs

Mitigation Programs

CDBG-Mitigation

- \$162M
- Four program areas:
 - Infrastructure
 - Plans & studies
 - Voluntary home buyouts
 - Matching Grants

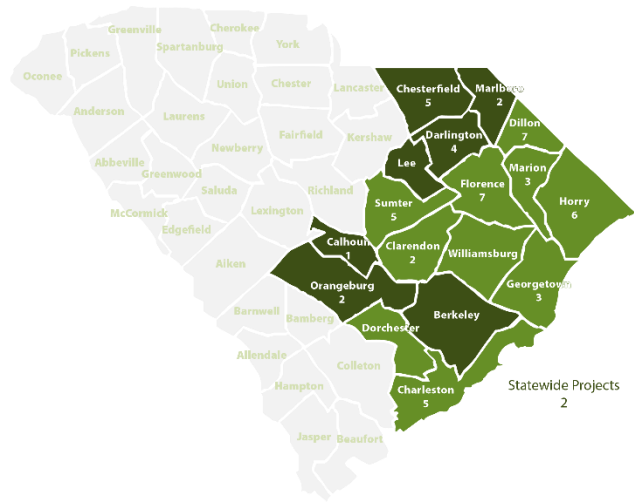
ARPA Stormwater Infrastructure (ASIP)

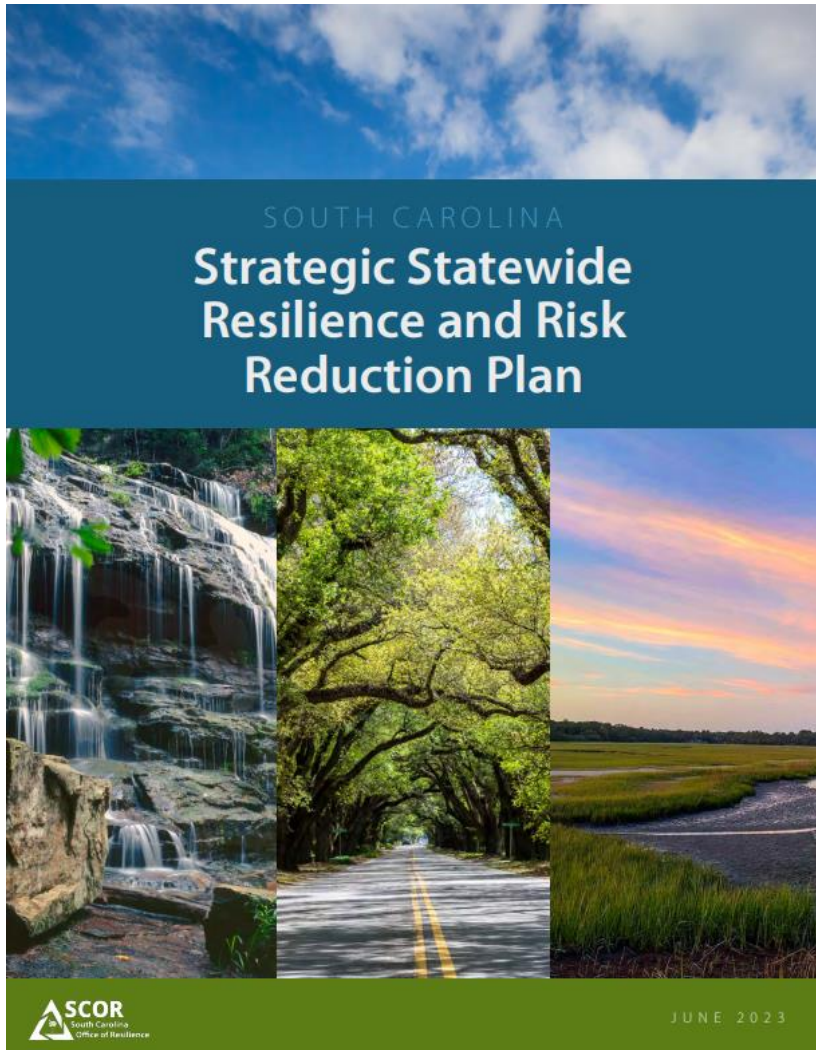
- Available statewide
- Awarded \$65M
- 17 projects

Ehrhardt Tunnel – Charleston Medical District



Little Creek Stream Improvement & Restoration (Greenville Co.)





Planning Principles

Use **high-quality data** to assess risk and vulnerability, and make that data accessible

Coordinate at the federal, state, regional and local level

Recognize beneficial function of **natural systems**

Plan and develop solutions based on **watershed boundaries**, not just jurisdictional

Recognize **Co-benefits** beyond flood mitigation to communities, economies, and ecosystems

Resilience Plan Implementation

54 Individual Recommendations

Watershed-Based
Planning and
Coordination

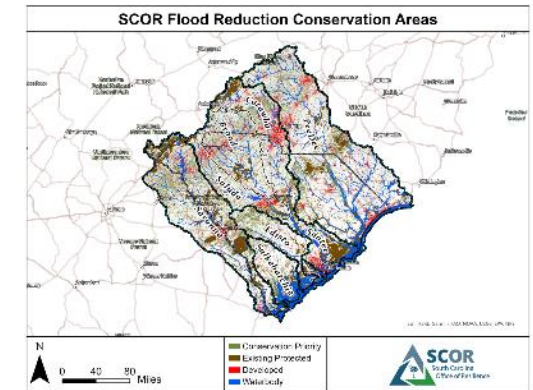
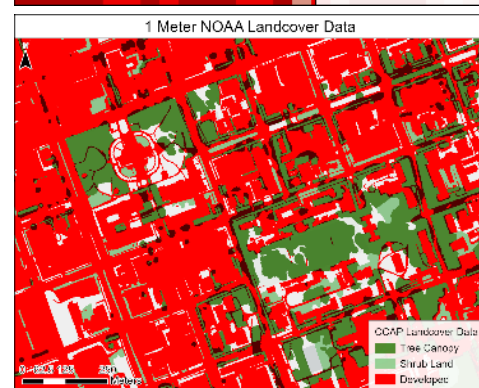
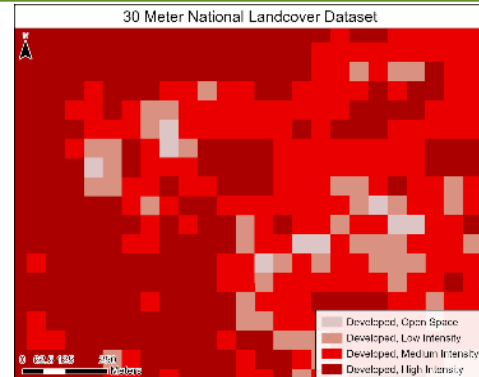
Data Collection
and Coordination

Grants

Coordinated Land
Conservation



Photo Credit- Use permitted by the Gullah/Geechee Sea Island Coalition





Palmetto Air Quality Collaborative (PAQC)

Planning Grant (Phase 1: non-competitive; \$3 million for SC)

Objectives



Funding



Multiple Benefits



Innovative
Strategies



Coordination &
Collaboration

Clean Air Strategies for South Carolina

Next grant deliverable due to EPA: December 1, 2025

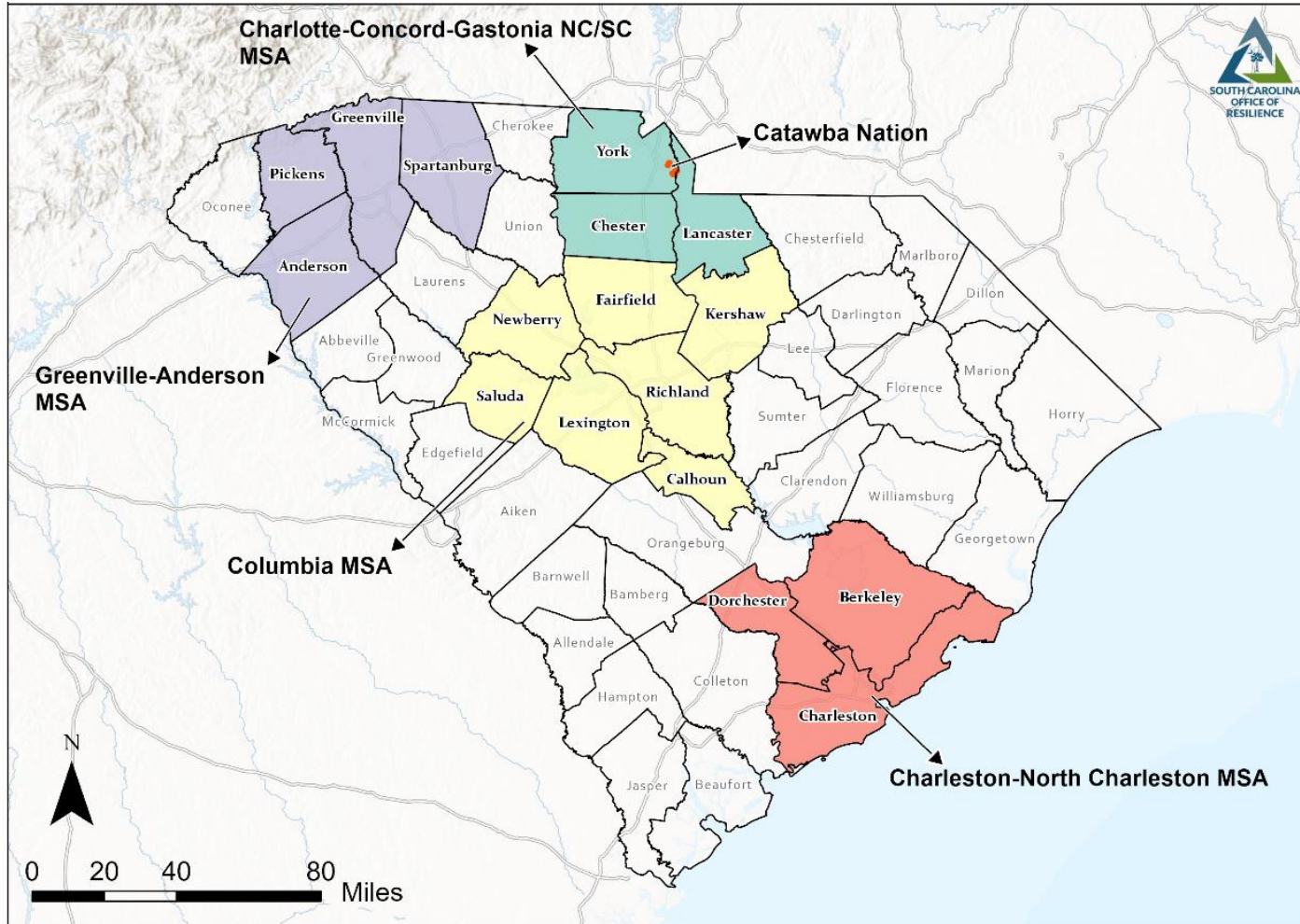
Website: <https://scor.sc.gov/paqc>

Implementation Grant (Phase 2: competitive)

Atlantic Conservation Coalition (NC, SC, VA, MD)

- \$421 million total
- SC: portion: approx. \$89 million
- \$50 million to SCOR for land acquisition and conservation
- \$39 million to The Nature Conservancy (SC) to administer bottomland hardwood forest projects

CPRG Awardees in South Carolina (Planning Grants)



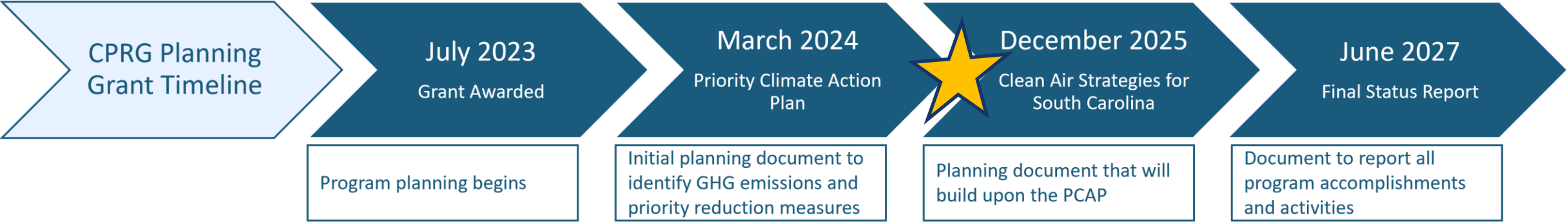
Palmetto Air Quality Collaborative

- Statewide effort

Other Efforts

- One Federally Recognized Tribe
 - Catawba Nation
- Four COGs
 - Appalachian
 - Berkeley-Charleston-Dorchester
 - Catawba (part of the Charlotte MSA)
 - Central Midlands

Timeline



CPRG Planning Grant and PAQC Timeline

CPRG Deliverable #2

Clean Air Strategies for South Carolina (CASSC)

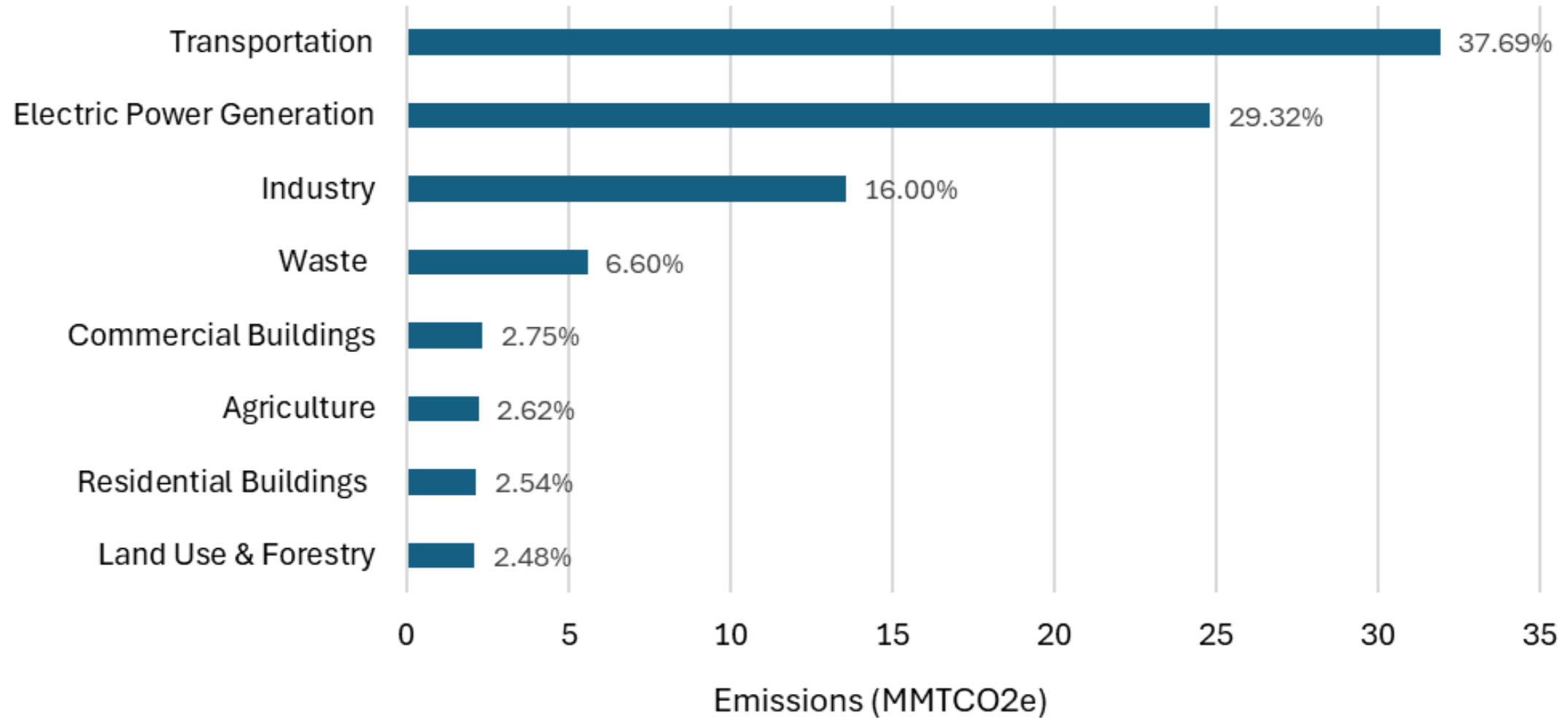
Required Elements	
Greenhouse Gas (GHG) Inventory	1990-2022 Statewide totals and trends
GHG Emissions Projections	Through 2050 Short-term (2030) and long-term (2050) targets
GHG Reduction Measures	Presented by sector • Electric Power Generation • Transportation • Buildings (residential, commercial; on-site generation) • Industry (on-site generation; industrial processes) • Waste (solid waste, wastewater) • Land Use/Land Use Change (Natural & Working Lands)
Benefits Analysis	
Implementation (who, timeline, metrics)	
Funding Opportunities & Resources	
Workforce Planning Analysis	Existing programs, opportunities, gaps

Greenhouse Gas Emissions by Sector (2022)

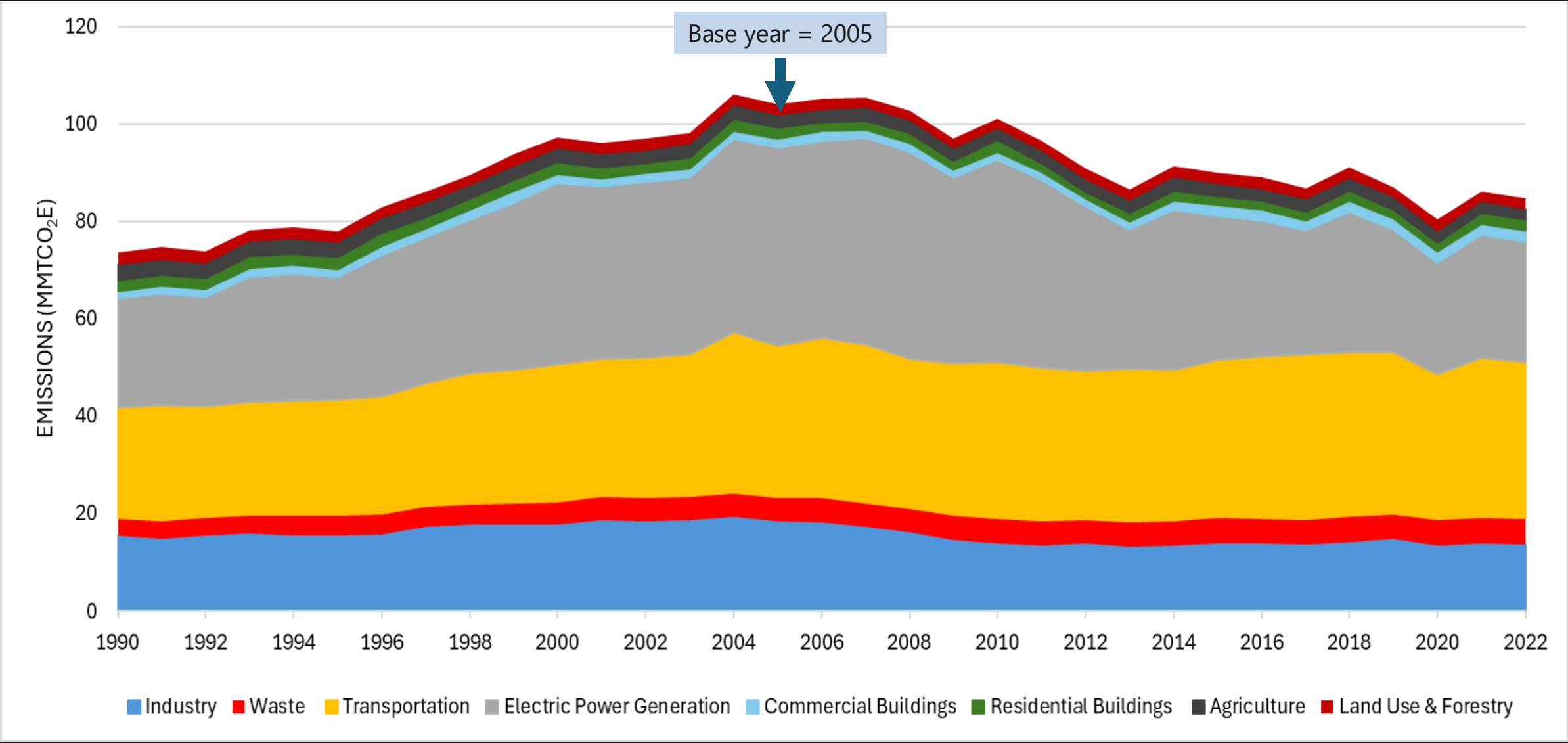
SECTOR	GROSS EMISSIONS	SINKS & AVOIDED EMISSIONS ¹	NET EMISSIONS
	MMTCO ₂ e		
Transportation	31.8996	-	31.8996
Electric power generation	24.8140	-	24.8140
Industry	13.5388	-	13.5388
Waste	5.5861	(2.5286)	3.0575
Commercial	2.3289	-	2.3289
Agriculture	2.2183		2.2183
Residential	2.1499	-	2.1499
Land Use, Land Use Change & Forestry	2.0960	(30.1300)	(28.0340)
Total Emissions	84.6316	(32.6586)	51.9730

Source: State Inventory Tool, <https://www.epa.gov/statelocalenergy/state-inventory-and-projection-tool>

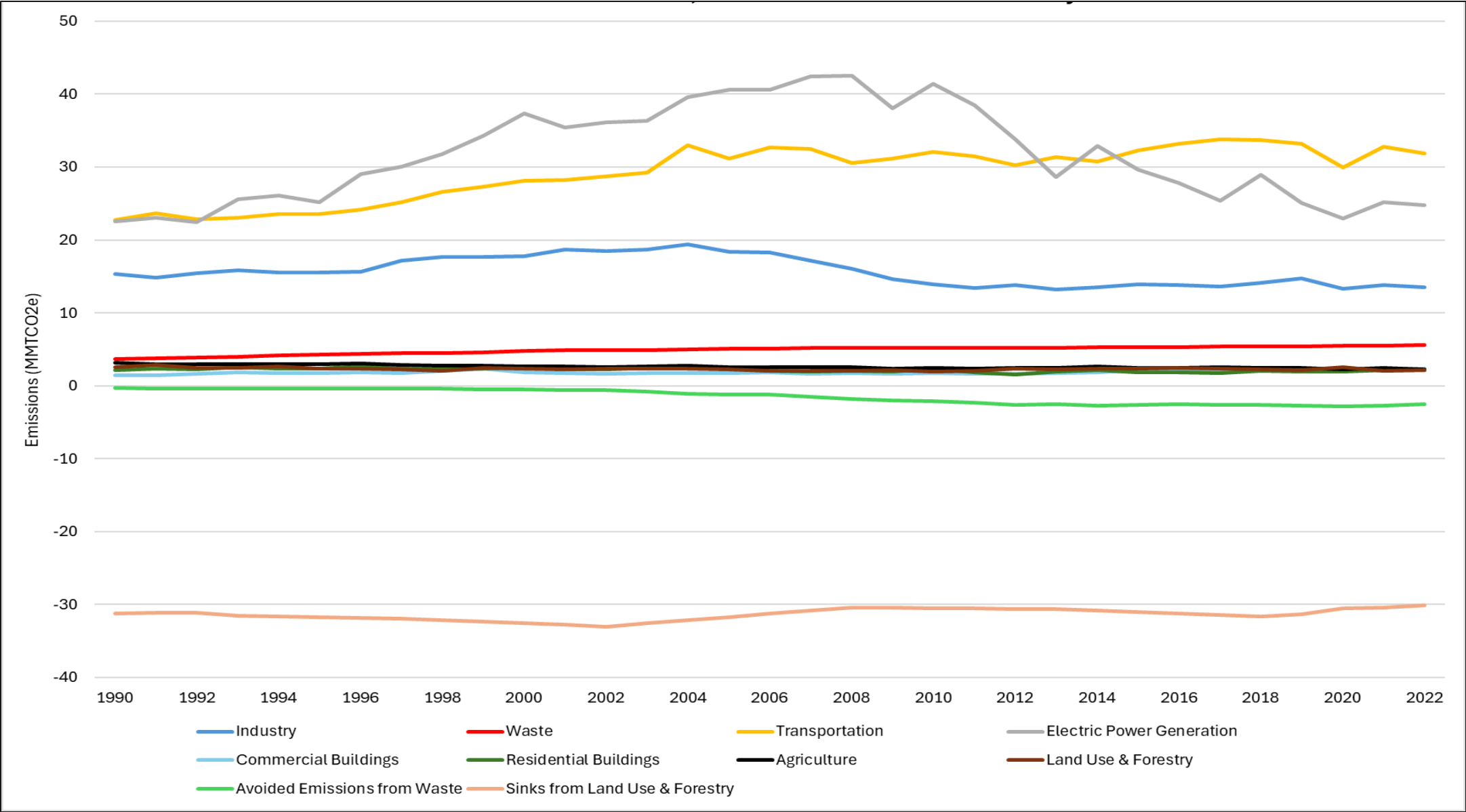
South Carolina GHG Gross Emissions by Sector, 2022 (MMTCO₂e)



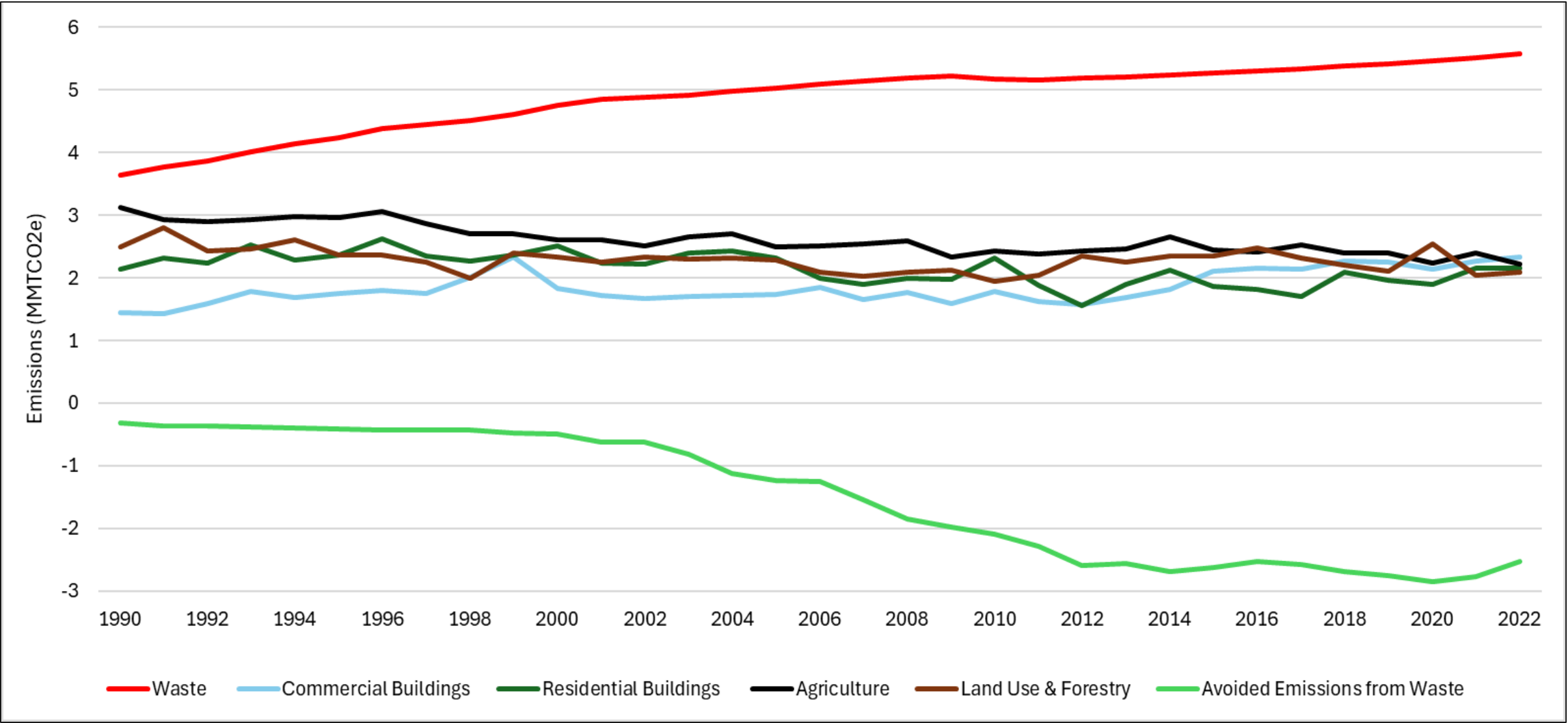
GHG Gross Emissions, by Sector, 1990-2022



GHG Gross Emissions and Avoided Emissions, by Sector, 1990-2022



GHG Gross Emissions and Avoided Emissions, Selected Sectors, 1990-2022



South Carolina GHG Emissions by Gas

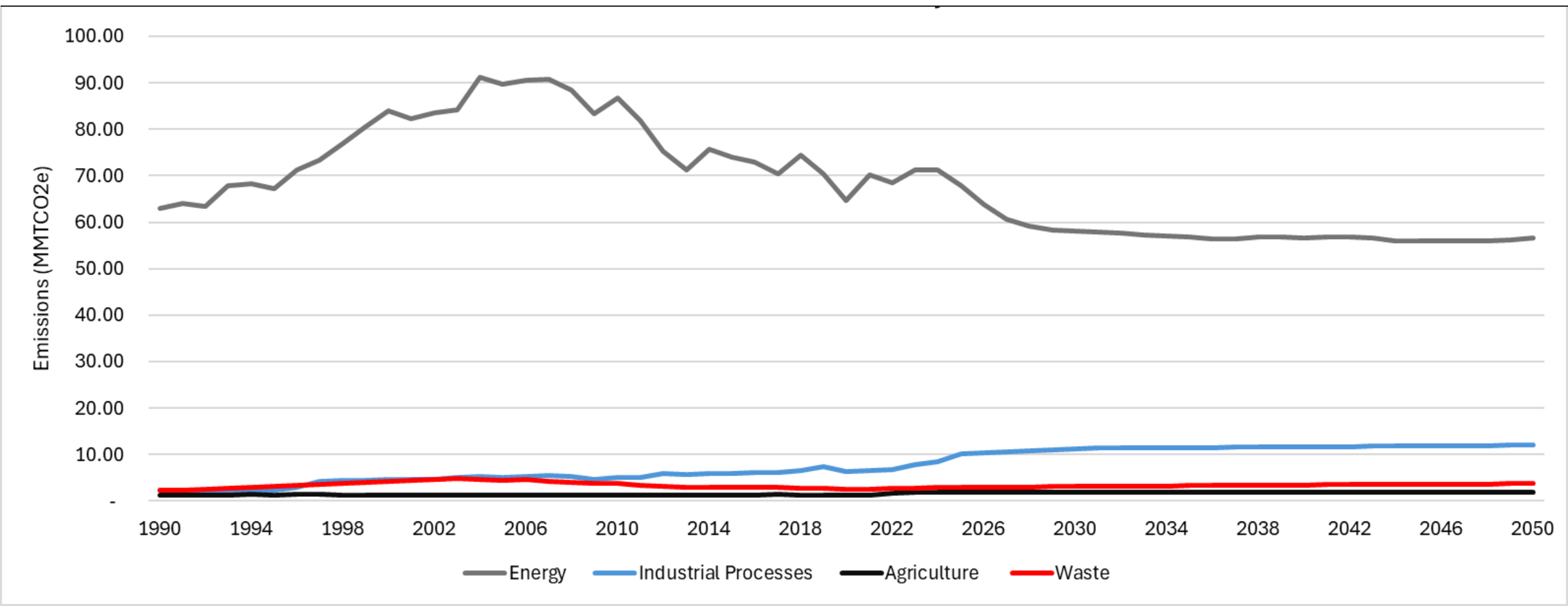
		1990		2005		2022	
GHG	Acronym	MMTCO ₂ e	Percent	MMTCO ₂ e	Percent	MMTCO ₂ e	Percent
Carbon dioxide	CO ₂	64.6897	88.0%	93.3522	89.7%	71.8916	84.9%
Methane	CH ₄	5.0971	6.9%	6.0842	5.8%	6.4792	7.7%
Fluorinated gases	HFC; PFC; NF ₃ , SF ₆	0.8634	1.2%	2.2160	2.0%	4.3152	5.1%
Nitrous oxide	N ₂ O	2.8475	3.9%	2.4829	2.4%	1.9456	2.3%

Projections

GHG Emissions (MMTCO ₂ e)					
Sector	2005 Base Year	2022 Recent Inventory Year	2023 First Year of Projection	2030 Short-Term BAU	2050 Long-Term BAU
Energy Consumption	89.7745	68.5184	71.2973	58.1918	56.5725
Industrial Processes	5.0763	6.8558	7.7458	11.3048	12.0030
Agriculture	1.2365	1.5937	1.8339	1.8491	1.9070
Waste	4.5159	2.8061	2.7968	3.0932	3.7099
Total	100.6032	79.7740	83.6739	74.4390	74.1923

Source: Projection Tool, <https://www.epa.gov/statelocalenergy/state-inventory-and-projection-tool>

GHG Emissions Projections, 1990-2050

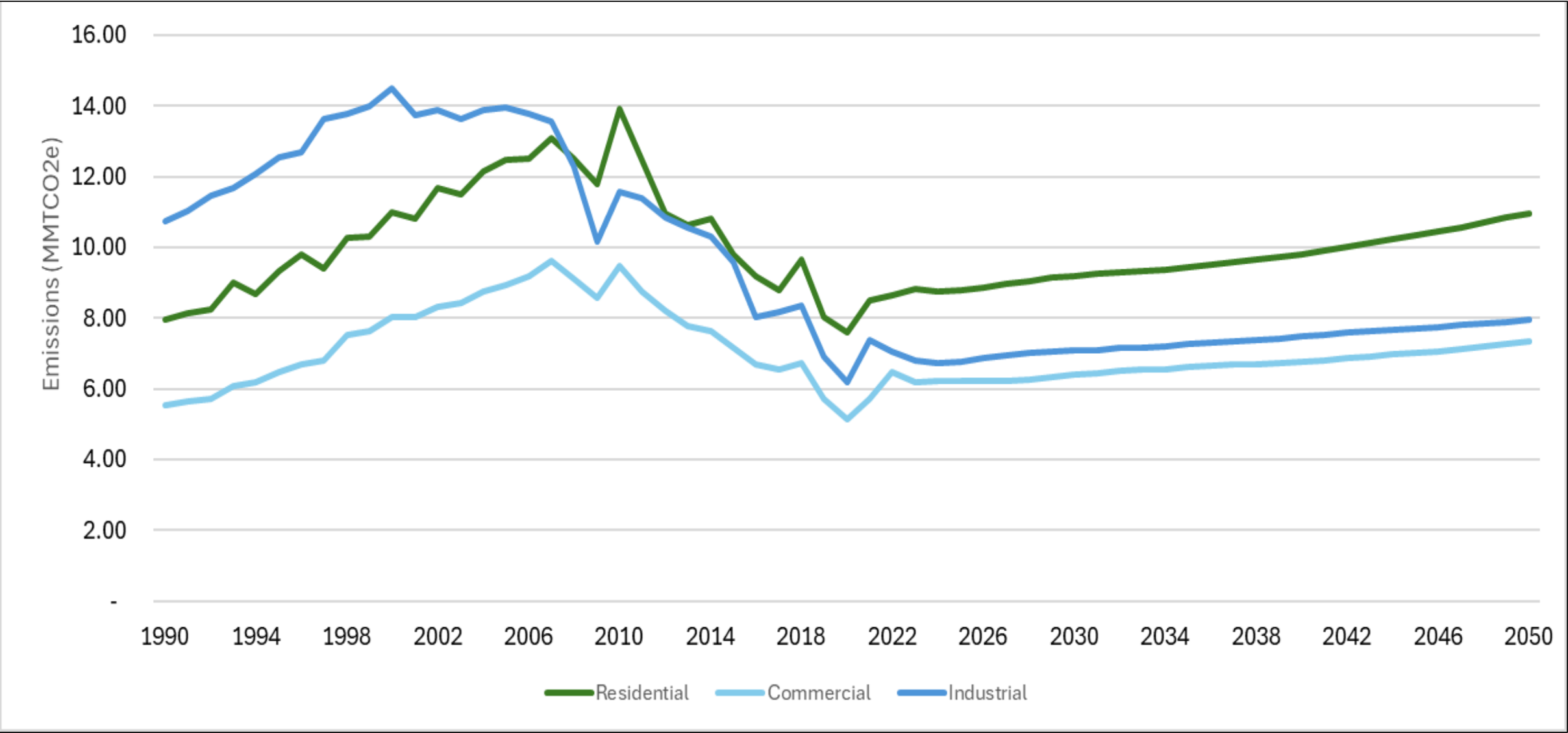


Indirect Emissions (Emissions due to Energy Use / Demand)

Sector	GHG Emissions (MMTCO2e)		
	1990	2005	2022
Residential	7.9492	12.4852	8.6410
Commercial	5.5263	8.9246	6.4582
Industrial	10.7547	13.9675	7.0498
Total	24.2302	35.3773	22.1490

Source: State Inventory Tool, <https://www.epa.gov/statelocalenergy/state-inventory-and-projection-tool>

Indirect Emissions from Electricity Consumption, 1950-2022



Source: Projection Tool, <https://www.epa.gov/statelocalenergy/state-inventory-and-projection-tool>

Approach to Measures

Strategies

Overall means to reduce net GHG emissions

Reduce fossil fuel use (coal, natural gas, petroleum, diesel)

Maintain / enhance existing carbon sinks

Create new carbon sinks

Measures

Direct

Activities that directly result in reductions / sinks

Enabling

Policies, incentives, or initiatives that support the implementation of a direct measure

Voluntary

By sector

Quantifiable

Implementation

Pathways to deploying in South Carolina

Who / scale

Timeline

Costs

Opportunities

Metrics

Case Studies

Overview of Measures

Sector	Measures	Implementation
Electric Power Generation	Reduce coal-fired generation	Coal plant retirements
	Increase deployment of renewables and storage	Solar and battery, hydroelectric, nuclear, wind energy sources
	Expand demand side management & energy efficiency programs	• Manage peak loads • Reduce customer demand • Install energy efficient appliances
Transportation	Reduce Vehicle Miles Traveled (VMT)	• Public transportation • Active transportation
	Reduce fossil fuel use	• Electric and alternative fuel vehicles • Freight logistics / multi-modal efficiencies • Traffic management / reduce idling
Industry	Increase efficiencies	• High efficiency equipment • Convert to electric systems for power, heating, cooling
	Optimize supply chains	• Locally sourced materials • Recycled materials / expand in-state markets

Overview of Measures

Sector	Measures	Implementation
Buildings	Reduce on-site consumption of fossil fuels	• Electrification • On-site solar and battery storage
	Improve energy efficiency	• HVACs, appliances • Weatherization / critical repairs
Waste	Reduce waste going to landfills	• Composting infrastructure • Food donation • Recycling / reuse markets
	Landfill gas collection and use	• Methane conversion / biofuels
Land Use, Forestry, Agriculture	Maintain carbon sinks	• Land conservation • Prevent conversion of natural and working lands
	Create new / enhance existing carbon sinks	• Restoration of previously developed sites
	Employ best management practices to reduce emissions and/or enhance carbon sinks	• Agriculture: soil / manure management • Forestry: timber management, new commodities that store carbon • Developed areas: green space, urban trees, smart surfaces

Case Studies to Demonstrate Multiple Benefits



Land conservation & restoration

- Mitigate flood risk
- Store carbon
- Provide water quality, recreation, and habitat benefits
- Protect natural & working agriculture and forestry lands



Waste management

- Reduce/delay need for new landfills
- Support new industries
- Divert food waste to other uses such as composting
- Encourage food donations and address food insecurity



Energy generation

- Reduce energy-related costs by deploying clean energy projects
- Build energy resilience for extreme events (“resilience hubs”)



Energy efficiency & energy use

- Reduce energy demand and energy-related costs for residential, commercial, and industrial users

Getting Involved / Resources

Case Studies

- What's happening in your community?
- What would you like to learn more about?

Action Teams

- Provide expertise about your sector, organization, community
- Provide input into the *Clean Air Strategies for South Carolina* document

Public Input Survey

- Available on <https://scor.sc.gov/paqc>
- Input will help statewide effort identify and prioritize strategies and case studies
- Open until Friday, November 14



**Economic
Development**



Cost Savings



**Job Creation
& Training**



**Improved Health &
Well-Being**



**Healthier
Environment**



Community Resilience

Public Survey

Resilient, Thriving, Sustainable SOUTH CAROLINA



“Envision a resilient, thriving, and sustainable South Carolina in 2050. What does that look like for your community?”



https://www.surveymonkey.com/r/Resilient_Thriving_Sustainable_SC

Action Teams / Upcoming Dates

Overview Webinars

- Tuesday, October 28, 1:00-2:30
- Thursday, October 30, 10:00-11:30

Sector / Topical Webinars

- **Transportation**
 - Monday, Nov. 3, 2:00-3:30
- **Waste and Materials Management**
 - Tuesday, Nov. 4, 10:00-11:30
- **Energy: Generation, Consumption, and Efficiency**
 - Wednesday, Nov. 5, 2:00-3:30
- **Land Use, Forestry, and Agriculture**
 - Wednesday, Nov. 12, 2:00-3:30

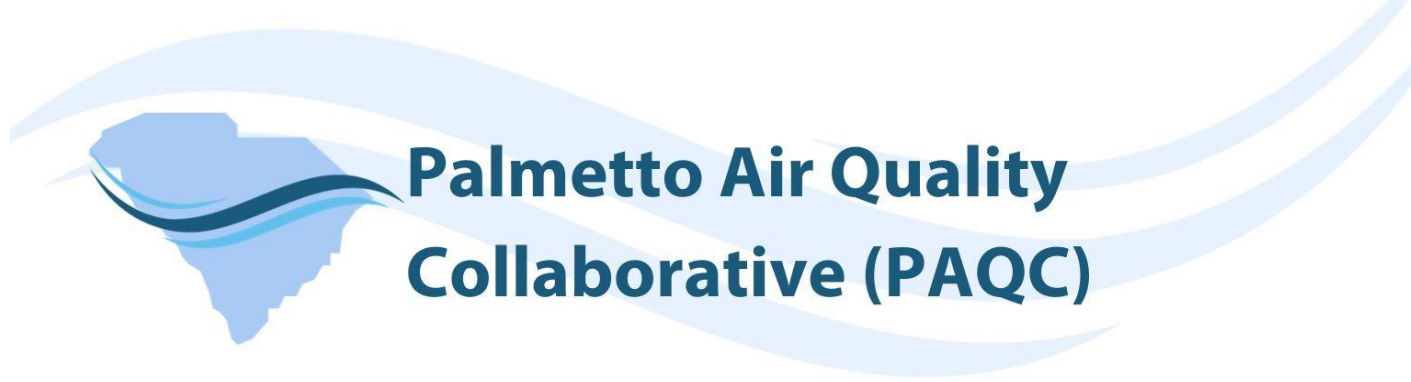
Draft Materials

- Provided to those who register
- Beginning Friday, October 24

Feedback Form

- Webinar participation encouraged
- Open until Monday, November 17

*Email list signup available
on the PAQC website*



Contact Information

Website: <https://scor.sc.gov/paqc>

Program email: PAQC@scor.sc.gov

Kirsten Lackstrom, CPRG Program Manager
Kirsten.Lackstrom@scor.sc.gov

Amanda Rahimian, CPRG Program Coordinator
Amanda.Rahimian@scor.sc.gov

Nnaemeka Onoyima, CPRG GHG Analyst
Nnaemeka.Onoyima@scor.sc.gov

Peter Caldwell: Policy Analyst
Peter.Caldwell@scor.sc.gov

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