



# South Carolina Climate, Energy & Commerce Advisory Committee

Cross-Cutting Issues  
Technical Work Group Meeting #1  
May 31, 2007

Office of the Governor  
The Center for Climate Strategies

# Welcome and Introductions

- Governor's Office
- Chairman, Honorable Senator John Courson
- State Agencies
- Climate, Energy & Commerce Advisory Committee (CECAC) Technical Work Group (TWG) Members
- Members of the Public
- Center for Climate Strategies

# Agenda

- Introductions
- Purpose and Goals
- Review of the CECAC and TWG process
- Review and Discussion of the Catalog of State Actions
- Review of the SC Draft Emissions Inventory & Forecast
- Agenda, Date and Time for Next Meeting
- Public Input and Announcements

# Purpose & Goals

- Purpose
  - **Achievement of Executive Order 2007-04**
- Goals
  - **Review and approval of a current and comprehensive inventory and forecast of greenhouse gas (GHG) emissions in South Carolina from 1990 to 2020;**
  - **Development and recommendation of a comprehensive set of specific policy recommendations and associated analyses to reduce GHG emissions and enhance energy and economic policy in South Carolina by 2020 and beyond;**
  - **Development and recommendation of a set of recommended statewide GHG reduction goals and targets for implementation of these actions; and**
  - **Issuance of recommendations in the form of a final report to the Governor by June 2008.**

# Part 1

- SC CECAC and TWG Process

# SC CECAC Roles & Responsibilities

- CECAC Process convened by Governor Sanford
- Oversight and coordination by the Chair
- CECAC makes recommendations to Governor
- TWGs provide informal guidance to CECAC
- Public input and review for stakeholders
- CCS provides facilitation, technical support, final report

# TWVG Roles

- Assist CECAC
  - Identify potential state actions
  - Identify potential priorities for analysis
  - Suggest straw policy designs
  - Assist with analysis and review of options
  - Assist with development of policy alternatives
  - Assist with input to and review of CECAC reports
  - Review and assist with the state GHG inventory and forecast

# Five Sector-Based TWGs

- Energy Supply
  - Heat and power generation; typical locus for cap and trade or carbon tax policy
- Commercial, Industrial, and Residential
  - Energy efficiency & conservation, industrial process, waste management
- Transportation and Land-Use
  - Including vehicle efficiency, alternative fuels & demand reduction programs, development patterns
- Agriculture, Forestry and Waste
  - Land protection, forest restoration, sustainable forest management, bioenergy, sustainable wood products, waste reduction, recycling
- Cross-Cutting Issues
  - Reporting, registries, public education, goals, etc.

# Overall CECAC Schedule

Date	Action
February 16, 2007	Executive Order and Announcement
April 27, 2007	1 <sup>st</sup> Committee meeting
June 2007	2 <sup>nd</sup> Committee meeting
August 2007	3 <sup>rd</sup> Committee meeting
October 2007	4 <sup>th</sup> Committee meeting
January 2007	5 <sup>th</sup> Committee meeting
April 2007	6 <sup>th</sup> Committee meeting
June 30, 2008	Final Committee Report Due
Between Committee Meetings	TWG conference calls and meetings

# Stepwise Planning Process

1. Develop inventory and forecast of emissions
2. Identify a full range of possible actions
3. Identify initial priorities for analysis
4. Develop straw proposals
5. Quantify GHG reductions and costs/savings
6. Evaluate externalities, feasibility issues
7. Develop alternatives to address barriers
8. Aggregate results
9. Iterate to final agreements
10. Finalize and report recommendations

# Ground Rules

- Supportive of the process
- Attendance at meetings
- Stay current with information
- No backsliding
- Do not represent the CECAC or TWGs
- Equal footing
- Make objective contributions

# Building Consensus

- Comprehensive
- Stepwise
- Fact based
- Transparent
- Inclusive
- Collaborative
- Consensus driven



# Coverage Of Issues



- All GHG's
- All sectors
- All potential implementation mechanisms
- State and multi-state actions
- Short and long term actions

# Catalog of States Actions

- Over 300 actions taken by US states
- Existing, planned and proposed state level actions
- Wide variety of US states
- All sectors
- Wide variety of implementation mechanisms
- Includes key SC actions
- CECAC will add new potential actions
- Starting place for identification of CECAC priorities

# Decision Criteria

- GHG Reduction Potential (MMTCO<sub>2</sub>e)
- Cost or Cost Saved Per Ton GHG Removed
- Co-benefits
- Feasibility Issues

# Screening of Potential Actions

## - Agriculture Example

Option No.	Climate Mitigation Option	Priority for Analysis	Potential GHG Emissions Reduction	Potential Cost or Cost Savings	Additional Impacts, Feasibility Considerations	Notes
<b>AFW-1</b>	<b>AGRICULTURE'S PRODUCTION OF FUELS AND ELECTRICITY</b>					
1.1	Manure Digesters/Other Waste Energy Utilization**					
1.2	Biodiesel Production (incentives for feedstocks and production plants)					
1.3	Biomass Feedstocks for Electricity or Steam Production**					
1.4	Ethanol Production					

# Policy Design Proposals

- TWGs start with Catalog of states' actions, screen options, and recommend priorities for SC
- CECAC selects about 50 draft potential priority options for further development
- TWGs develop initial policy option designs (“straw proposals”)
  - Timing
  - Goals
  - Coverage
- CCS quantifies and presents for review
- CECAC revisits list of potential priorities, as needed

# Policy Option Template

- **Policy Description (Concept)**
- **Policy Design (Goals, Timing, Coverage)**
- **Implementation Methods**
- **Related Programs and Policies (BAU)**
- **Estimated GHG Savings and Costs Per MMTCO<sub>2</sub>e**
  - **Data Sources, Methods and Assumptions**
  - **Key Uncertainties**
- **Additional (non-GHG) Benefits and Costs, as Needed**
- **Feasibility Issues, if Needed**
- **Status Of Group Approval**
- **Level of Group Support**
- **Barriers to Consensus, if any**

# Final Report

- Executive Summary
- Background, Purpose And Goals
- SC Emissions Inventory & Forecast
- CECAC Recommendations & Results
  - Agriculture
  - Forestry
  - Energy Supply
  - Residential, Commercial, Industrial
  - Transportation & Land Use
  - Waste Management
  - Cross Cutting Issues
- Appendices



# TWG Next Steps

- Review and revision of SC draft GHG inventory & forecast
- Identify “priorities for analysis” from catalog of state actions
  - Add existing and new SC options as needed
  - Rank and screen options as needed
  - Suggest initial “priorities for analysis” to the CECAC

# Part 2

- Catalog of Potential GHG Policy Options

# CCS Catalog of State Actions

- Actions undertaken or considered by a wide variety of US states
- Many actions provide GHG reductions coincidentally or as a co-benefit
- Cover all economic sectors
- Cover many implementation mechanisms
- Add to or revise as needed for SC

# Cross-Cutting Issues Catalog

- *Please see separate Catalog handout.*

# Part 3

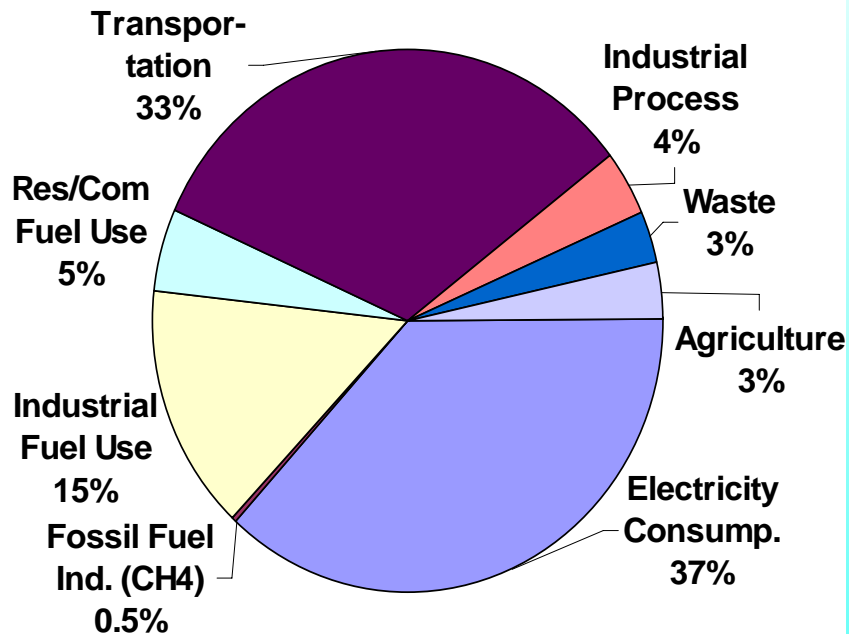
- SC draft GHG emissions inventory and forecast

# South Carolina GHG Emissions

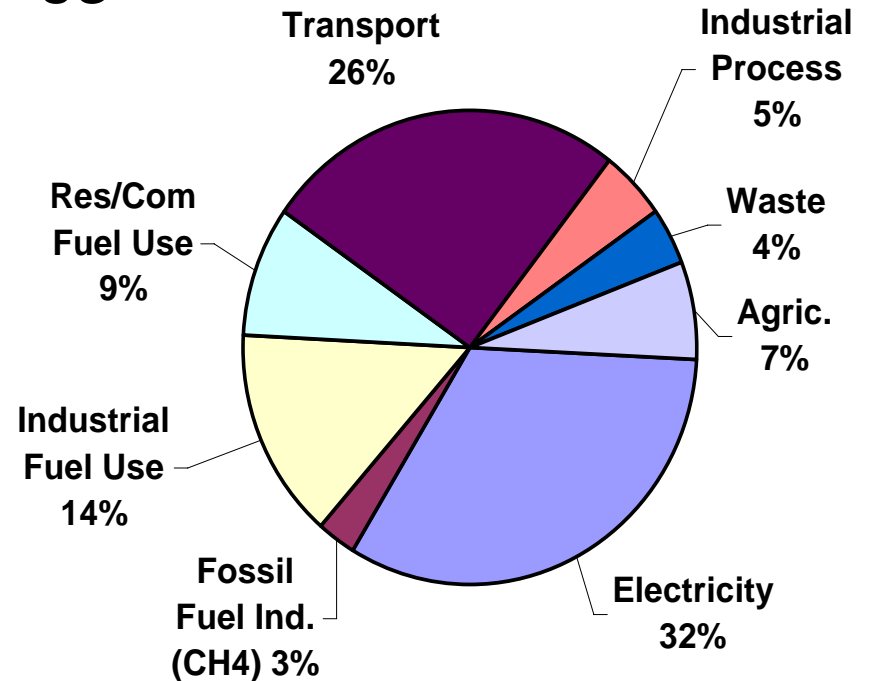
- Inventory and Reference Case Projections
- Initial analysis by CCS for further discussion and final revision
  - Inventory of historical emissions from 1990 to most recent data year (2000-2004, depending on sector)
  - Projection of emissions to 2020

# South Carolina & US Gross Emissions By Sector, Year 2000

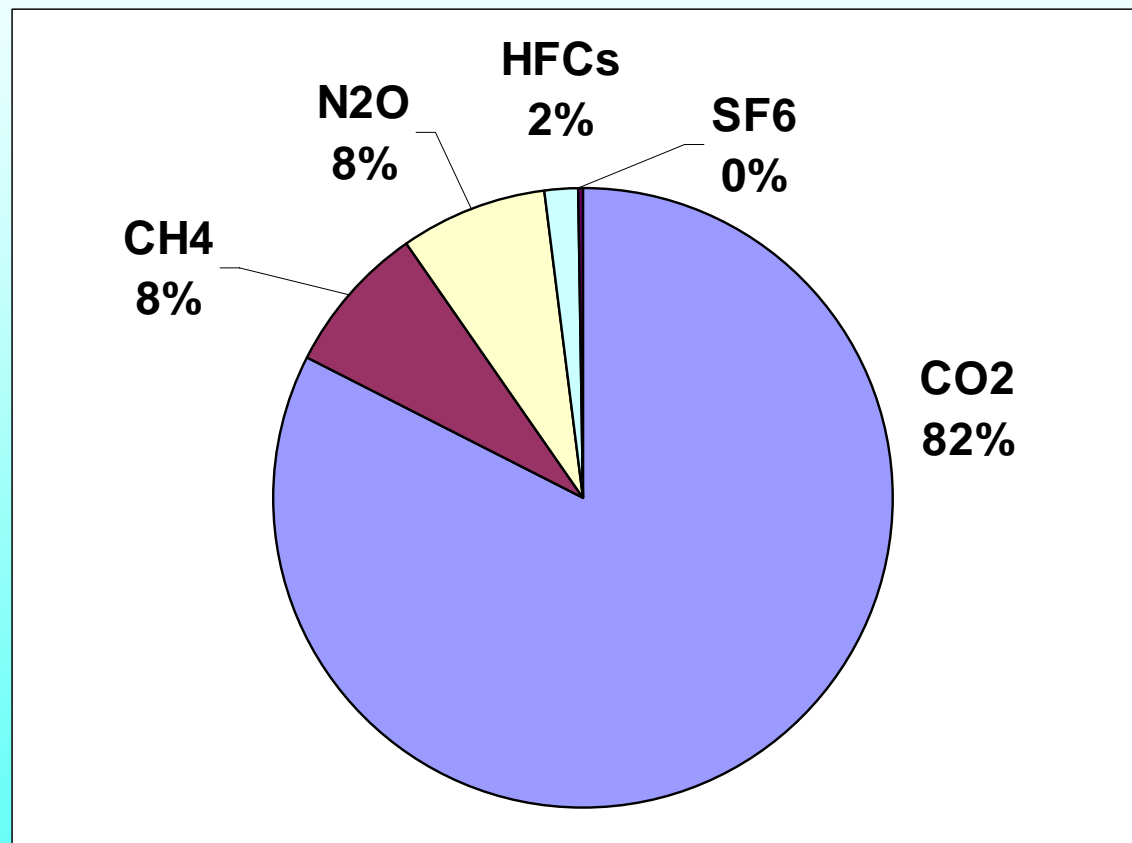
## South Carolina



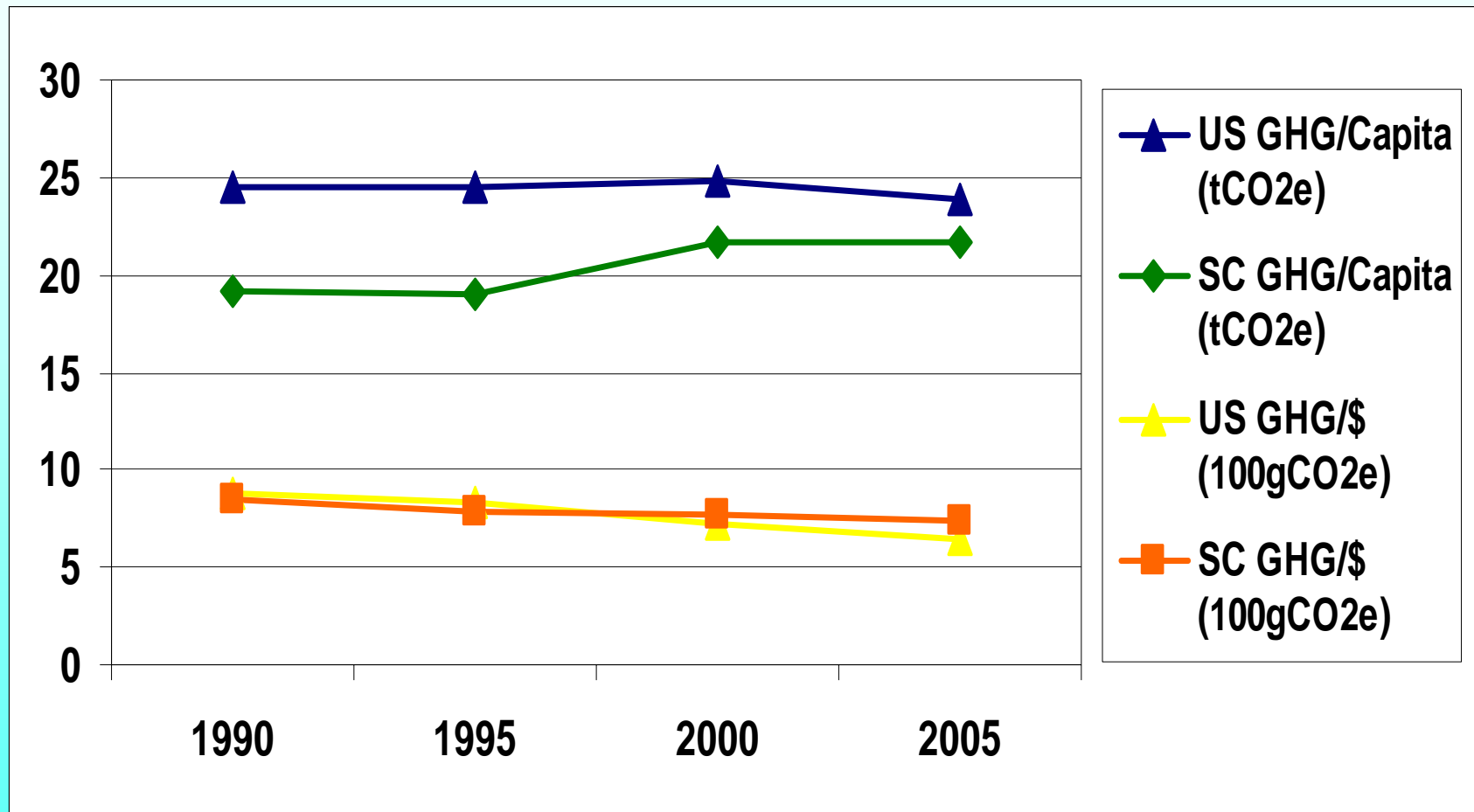
## US



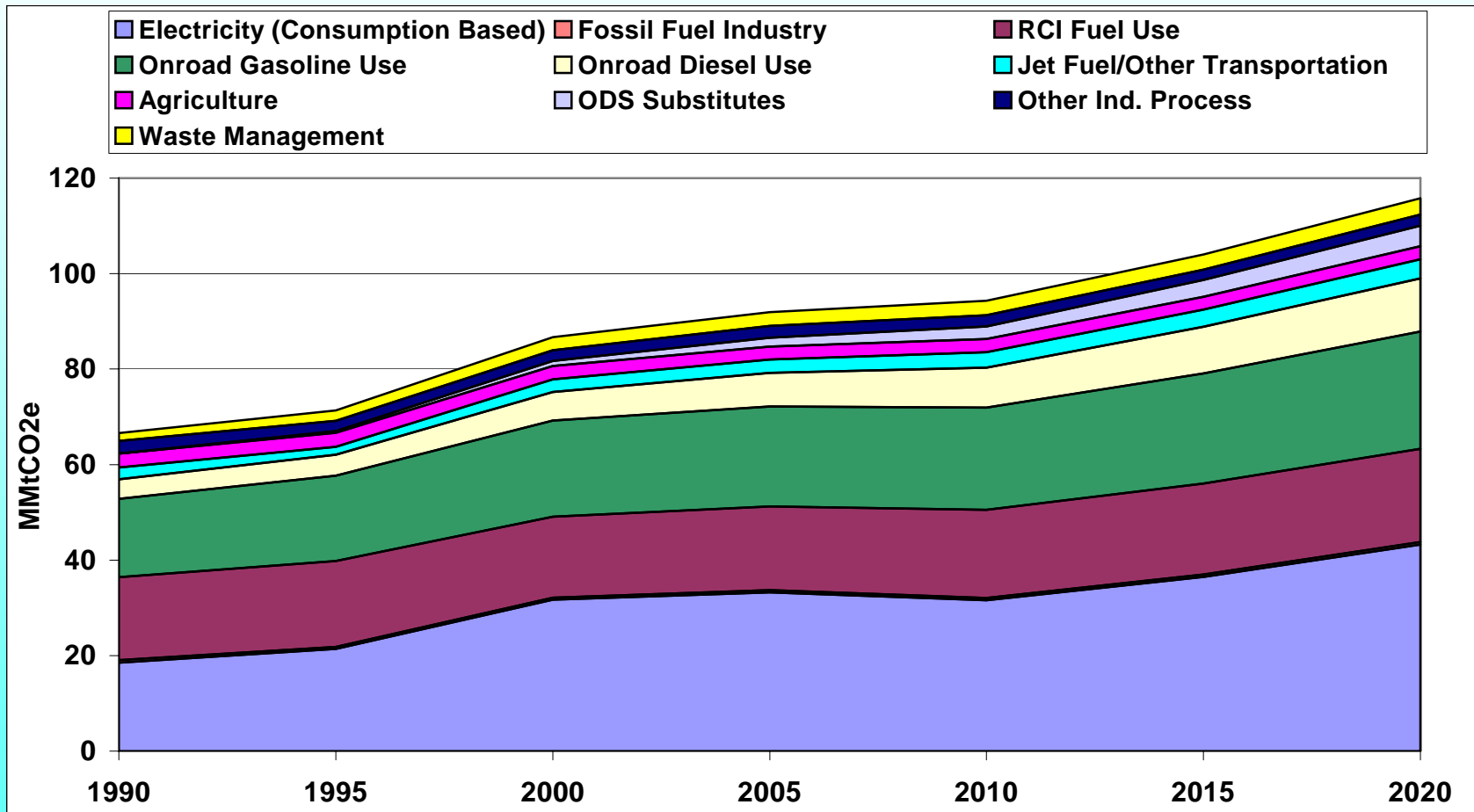
# South Carolina Gross Emissions By GHG, Year 2000 (MMtCO<sub>2</sub>e Based)



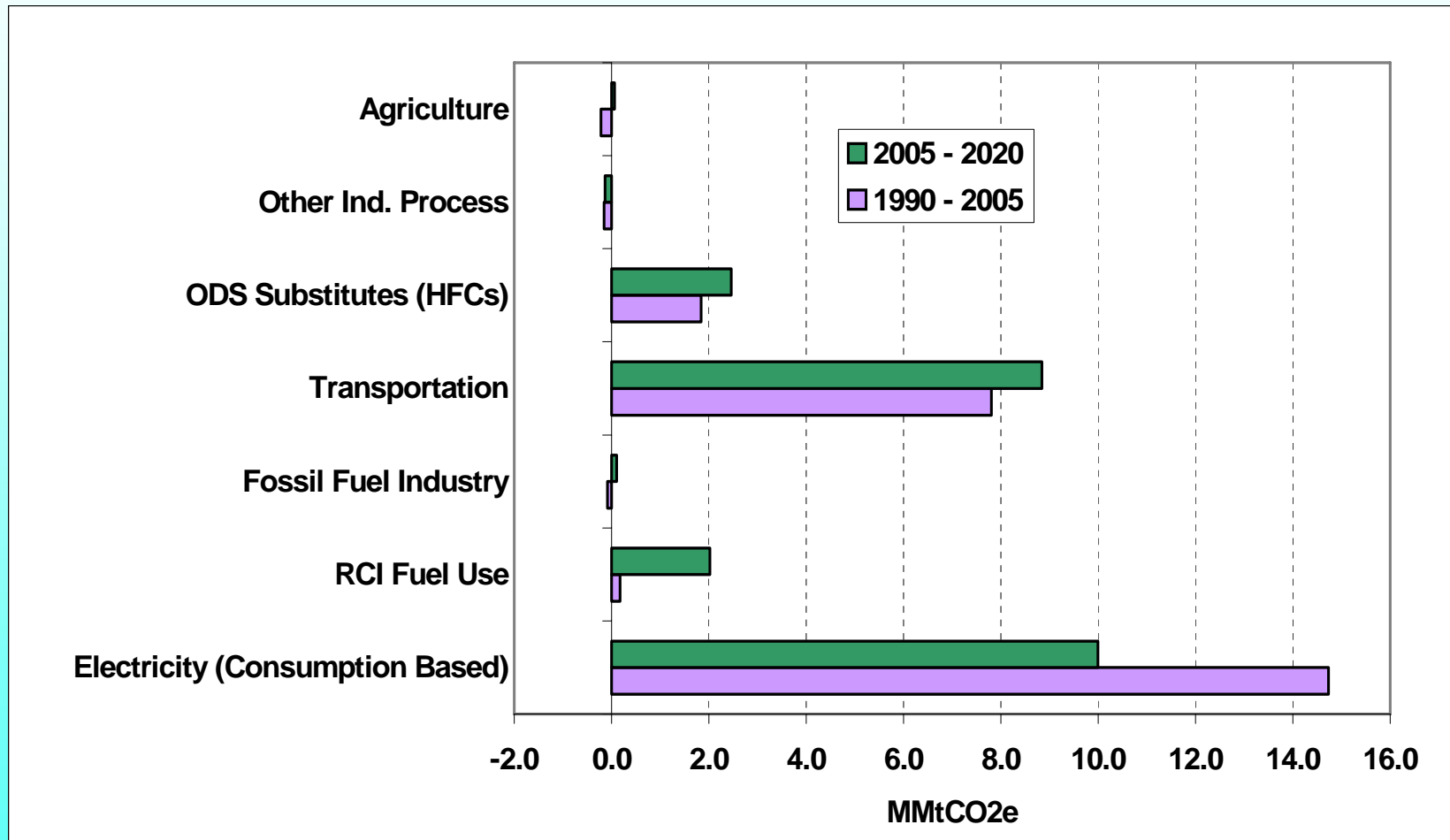
# Per Capita and GSP/GDP Gross GHG Emissions, 1990-2005



# South Carolina Gross GHG Emissions By Sector, 1990-2020



# South Carolina Gross Emissions Growth (MMtCO<sub>2</sub>e Basis)

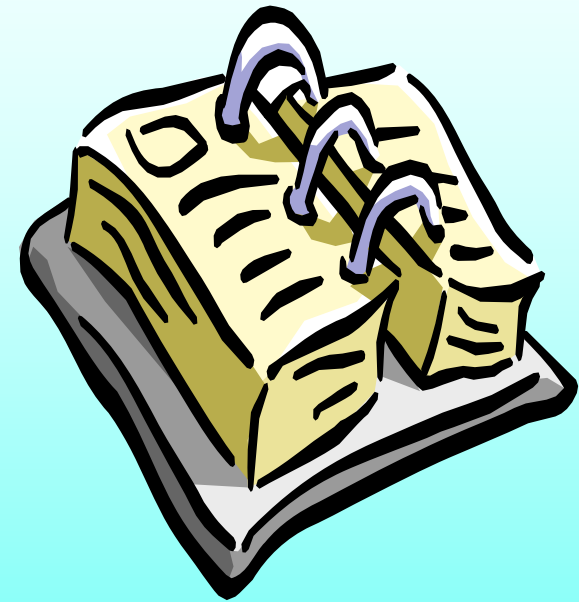


# Key Points

- Preliminary draft for CECAC and TWG review and revision, as needed
- Tool for diagnosing GHG emissions & trends, not a baseline for modeling or compliance
- Consumption and Production methods
- Net and Gross methods

# Next TWG Call

- Proposed Date for Next TWG Meeting
  - Wed., June 13, 2007
  - 9:30 – 11:00 am
- Agenda:
  - Discuss potential priority policy options for analysis
  - Discuss approaches for consideration



# Public Input, Announcements