



Colorado Climate Action Panel  
Cross-Cutting Issues  
Policy Work Group  
Meeting #1  
February 14, 2007



# Welcome and Introductions

- Rocky Mountain Climate Organization
- Center for Climate Strategies
- Policy Work Group Members
- Agency Observers and Liaison
- Members of the Public

# Agenda

1. Introductions and Agenda [5 min.]
2. Purpose and Goals [5 min.]
3. Review of the CAP Process [10 min.]
4. Review and Discussion of the Catalog of State Actions [60 min.]
5. Next Steps of Policy Work Groups [5 min.]
6. Brief overview of Inventory and Forecast [5 min.]
7. Agenda, Time and Date for Next Meeting [5 min.]
8. Public Input and Announcements [10 min.]

# Purpose & Goals

- **Purpose:**
  - **Develop recommendations for actions that can be taken in CO to reduce the state's contribution and vulnerability to a changed climate.**
- **Goals:**
  - **Review and approval of a current and comprehensive inventory and forecast of GHG emissions in CO from 1990 to 2020;**
  - **Development of a comprehensive set of individual policy recommendations to reduce GHG emissions and vulnerability to climate change in CO in future years through 2020 or later;**
  - **Development of goals for statewide reductions in the amount of GHGs emitted that can be adopted consistent with the goal of an efficient, robust CO economy**

# Roles & Responsibilities

- Process convened by RMCO and its Project Directors
- RMCO oversees and coordinates process
- CAP makes recommendations to RMCO
- PWGs provide guidance to CAP
- Public input and review for stakeholders
- CCS provides facilitation, technical support, final report

# Formation of Policy Work Groups

- Five PWGs
- Led by CCS Facilitator and Consultant
- Advice and assistance to CAP
  - Policy recommendations
  - Inventory and forecast of CO GHG emissions, where applicable
- Each meets by teleconference between CAP meetings
- CAP members and other interested parties and experts

# Policy Work Groups

- Energy supply
- Residential, Commercial, Industrial
- Transportation and Land Use
- Agriculture, Forestry and Waste Management
- Cross-Cutting Issues (reporting, registries, goals, education, etc.)

# Timing

<b>Date</b>	<b>Action</b>
November 20, 2006	1 <sup>st</sup> CAP meeting
February 15, 2007	2 <sup>nd</sup> CAP meeting
April 2007	3 <sup>rd</sup> CAP meeting
June 2007	4 <sup>th</sup> CAP meeting
September 2007	5 <sup>th</sup> CAP meeting
November 2007	6 <sup>th</sup> CAP meeting
December 2007	CAP Report Expected
Between CAP Meetings	PWG conference calls and meetings

# Step 1:

## Catalog of States Actions

- Refer to handouts: Catalog of States Actions and accompanying brief descriptions
  - Starting place for identification of CAP priorities
  - Existing, planned and proposed state level actions
  - Wide variety of US states
  - All sectors
  - Wide variety of implementation mechanisms
  - Include key CO actions
  - CAP can add new potential actions

# Step 2: Screening of Potential Actions

Option No.	Climate Mitigation Option	Priority for Analysis	Potential GHG Emissions Reduction	Potential Cost or 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					

# Step 3:

## Initial Priorities for Analysis

- CAP will identify about 50 draft potential options for further development
  - Approximately top 10 or more for each PWG area
  - CAP revisits list of potential priorities, as needed, based on discussion and results of analysis

# Step 4:

## Policy Design Proposals

- PWGs propose initial policy option design (“straw proposals”)
  - Timing
  - Goals
  - Parties Involved

# Step 5: Analysis

- [CCS quantifies and presents for PWG and CAP review, revision if/as needed
  - GHG reduction potential
  - Cost or cost savings (NPV and \$ per ton of GHG reduction)
  - Explicit data sources, methods, assumptions]

<b>Design Element</b>	<b>Characteristics</b>	<b>Design Considerations</b>
<b>Type of Program</b>	<ul style="list-style-type: none"> <li>•Voluntary</li> <li>•Mandatory</li> </ul>	<ul style="list-style-type: none"> <li>•May need or want to constrain mandatory applicability to certain sectors and/or sources pending availability of accepted quantification protocols.</li> <li>•Mandatory reporting is in place in some states for permitted sources (ME, CT, etc.); anticipated soon for several others in Northeast and far West.</li> </ul>
<b>Sectors</b>	<ul style="list-style-type: none"> <li>•All sectors eligible</li> <li>•Limited to certain sectors</li> </ul>	<ul style="list-style-type: none"> <li>•Participation may be limited by availability of quantification methods; may need to “stage” sector participation.</li> <li>•WRI calculation protocols: Stationary combustion, mobile, electric power, cement, iron &amp; steel, aluminum, pulp &amp; paper, wood products, lime, ammonia, purchased heat or power, others.</li> </ul>
<b>Sources</b>	<ul style="list-style-type: none"> <li>•All</li> <li>•Stationary combustion emissions</li> <li>•Mobile combustion emissions</li> <li>•Process emissions</li> <li>•Fugitive emissions</li> </ul>	<ul style="list-style-type: none"> <li>•Could limit sources even within sectors, (e.g., via types, size thresholds, etc.).</li> <li>•Broader array promotes inventory building, public information, identification of GHG strategies, etc.</li> </ul>
<b>Organizational Boundary</b>	<ul style="list-style-type: none"> <li>•Entity-wide (e.g., corporation-wide)</li> <li>•Facility</li> <li>•Emissions unit or source point</li> <li>•Other (?)</li> </ul>	<ul style="list-style-type: none"> <li>•Clear definitions needed to avoid double counting where shared ownership exists.</li> <li>•Should strive to have design be consistent with possible future directions (e.g., mandatory reporting would not be enforceable above the facility level).</li> <li>•Combinations possible (e.g., finer resolution aggregated to a greater whole).</li> </ul>
<b>Reporting Period</b>	<ul style="list-style-type: none"> <li>•Annual (Calendar; Fiscal)</li> <li>•Other</li> </ul>	<ul style="list-style-type: none"> <li>•Should strive for consistency with other reporting programs.</li> </ul>
<b>Greenhouse Gases Included</b>	<ul style="list-style-type: none"> <li>•Six “Kyoto gases” (CO<sub>2</sub>, HFCs, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, SF<sub>6</sub>)</li> <li>•Black Carbon</li> <li>•Other</li> </ul>	<ul style="list-style-type: none"> <li>•Should strive for consistency with other reporting programs.</li> <li>•Broader array promotes inventory building, public information, identification of GHG strategies, etc.</li> </ul>

# Step 6: Policy Option Templates

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

# Step 7: Final Report to RMCO

- **Executive Summary**
- **Background, Purpose And Goals**
  - Description Of The Process
  - History And Status Of State Actions
- **GHG Emissions Inventory & Forecast**
- **CAP Policy Recommendations & Results**
  - Agriculture, Forestry and Waste Management
  - Energy Supply
  - Residential, Commercial, Industrial
  - Transportation & Land Use
  - Cross-Cutting Issues
- **Appendices**



# Cross-Cutting Issues Catalog

Examples from catalog of state actions:

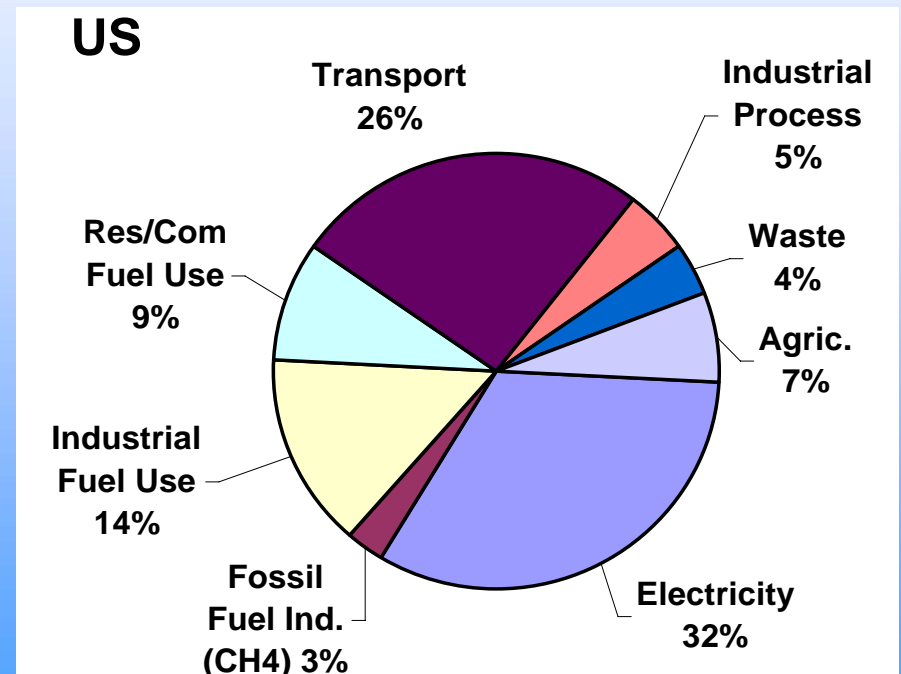
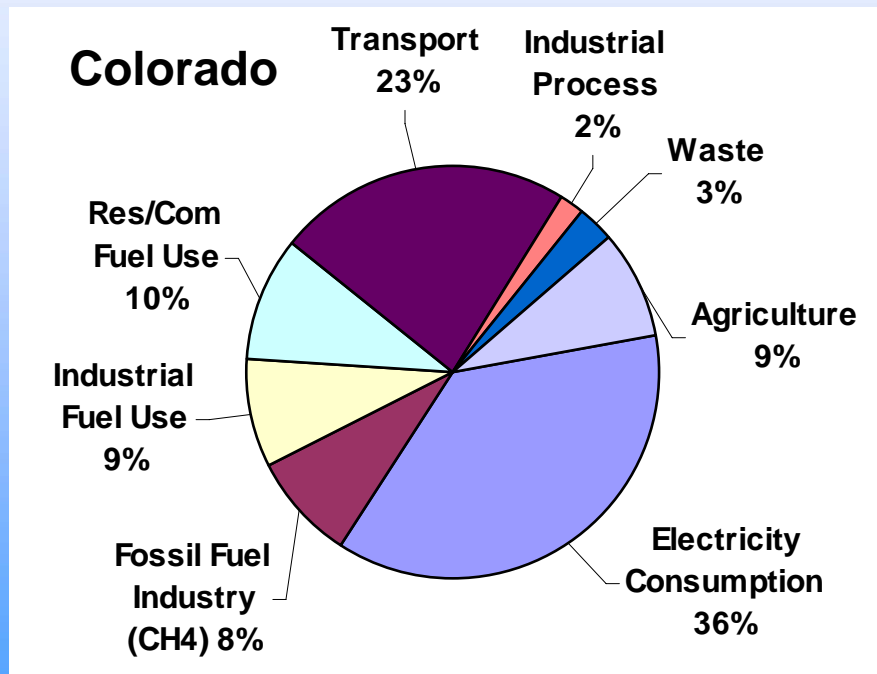
- Establish GHG inventory & forecast function
- GHG emissions reporting & registries
- State emission reduction goals/targets
- State lead-by-example actions
- Public education and outreach

***Please turn to the separate Catalog of State Actions for discussion covering agenda item #4.***

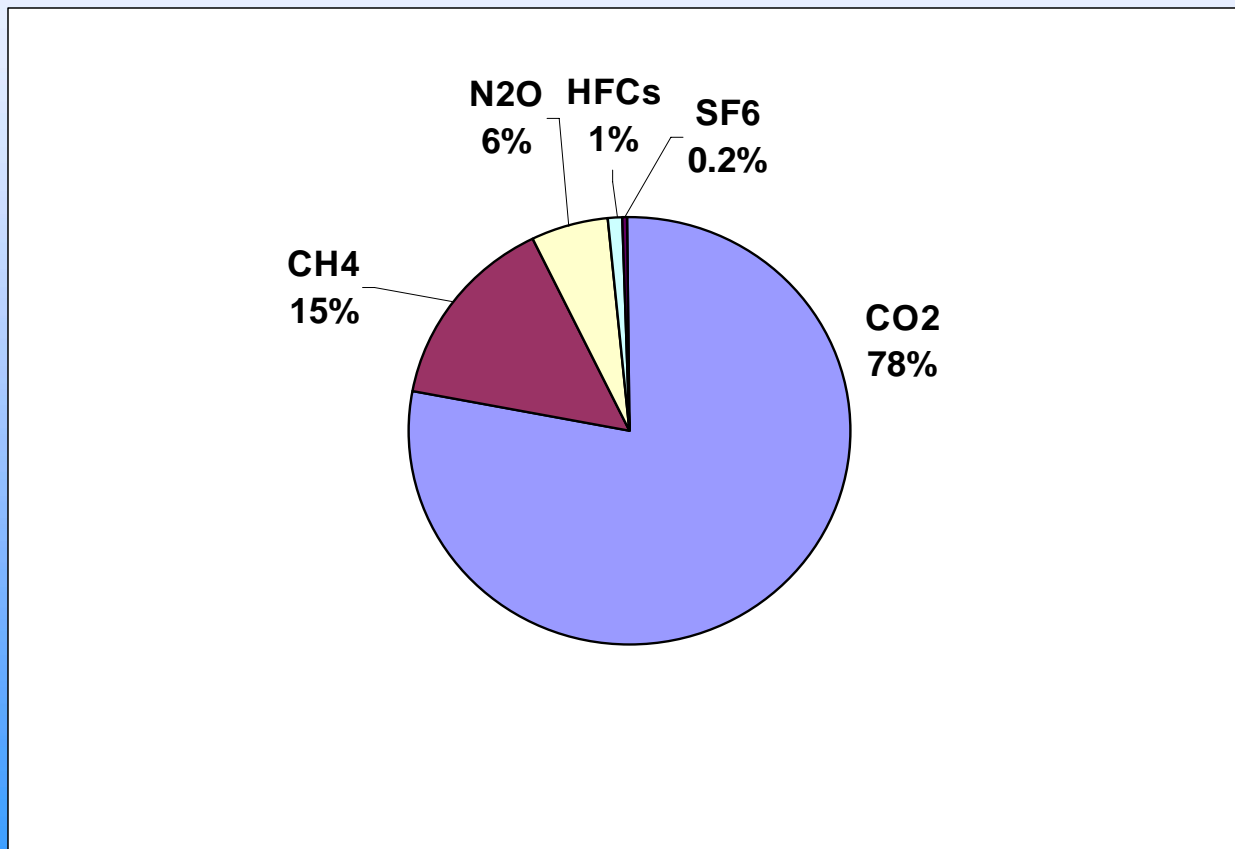
# Policy Work Group Next Steps

- Review and discuss catalog of state actions
- Identify missing potential Colorado actions for CAP consideration
- [Review and potential revision of Colorado GHG inventory and forecast]

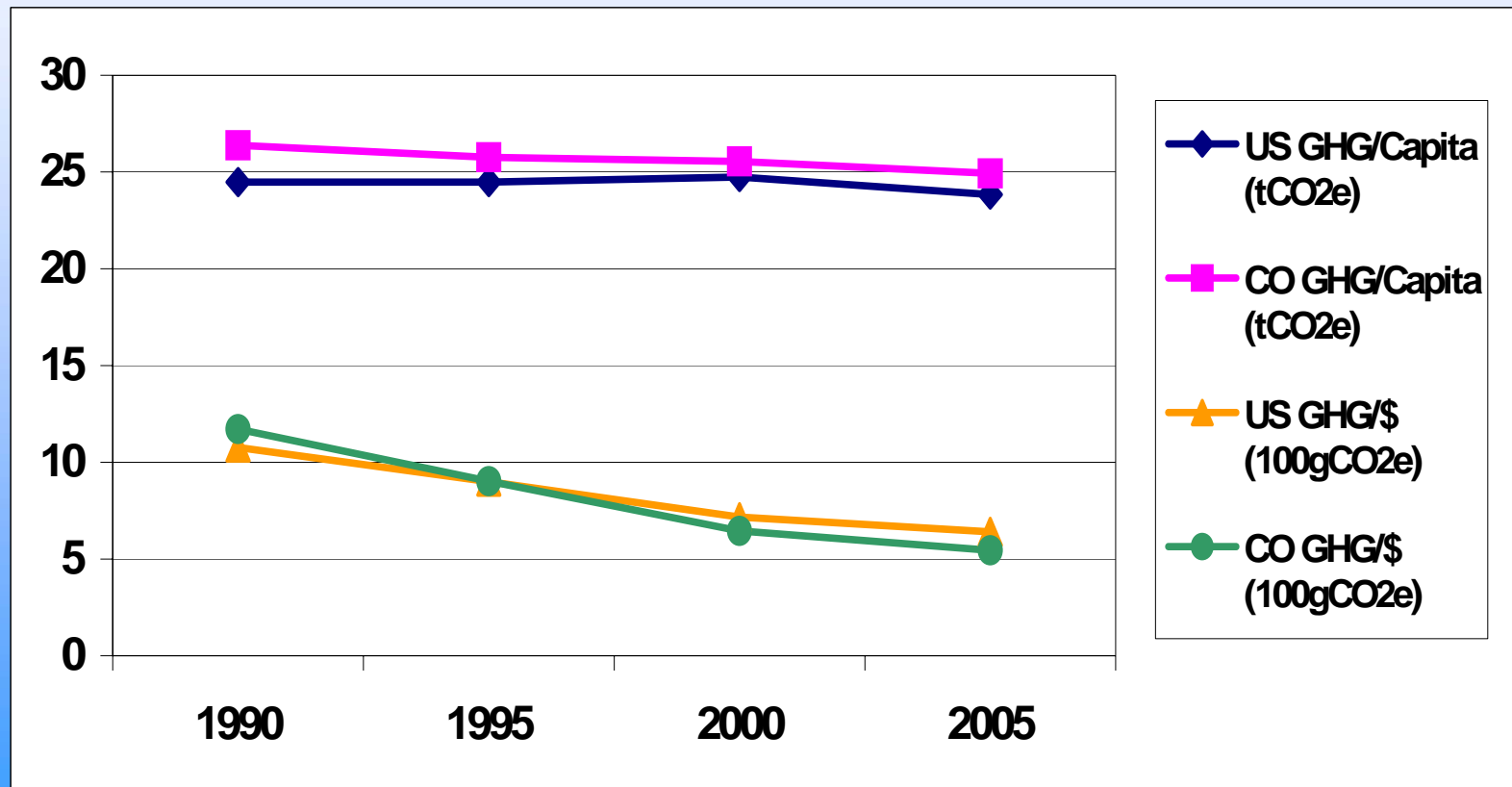
# Colorado & US Emissions By Sector, Year 2000



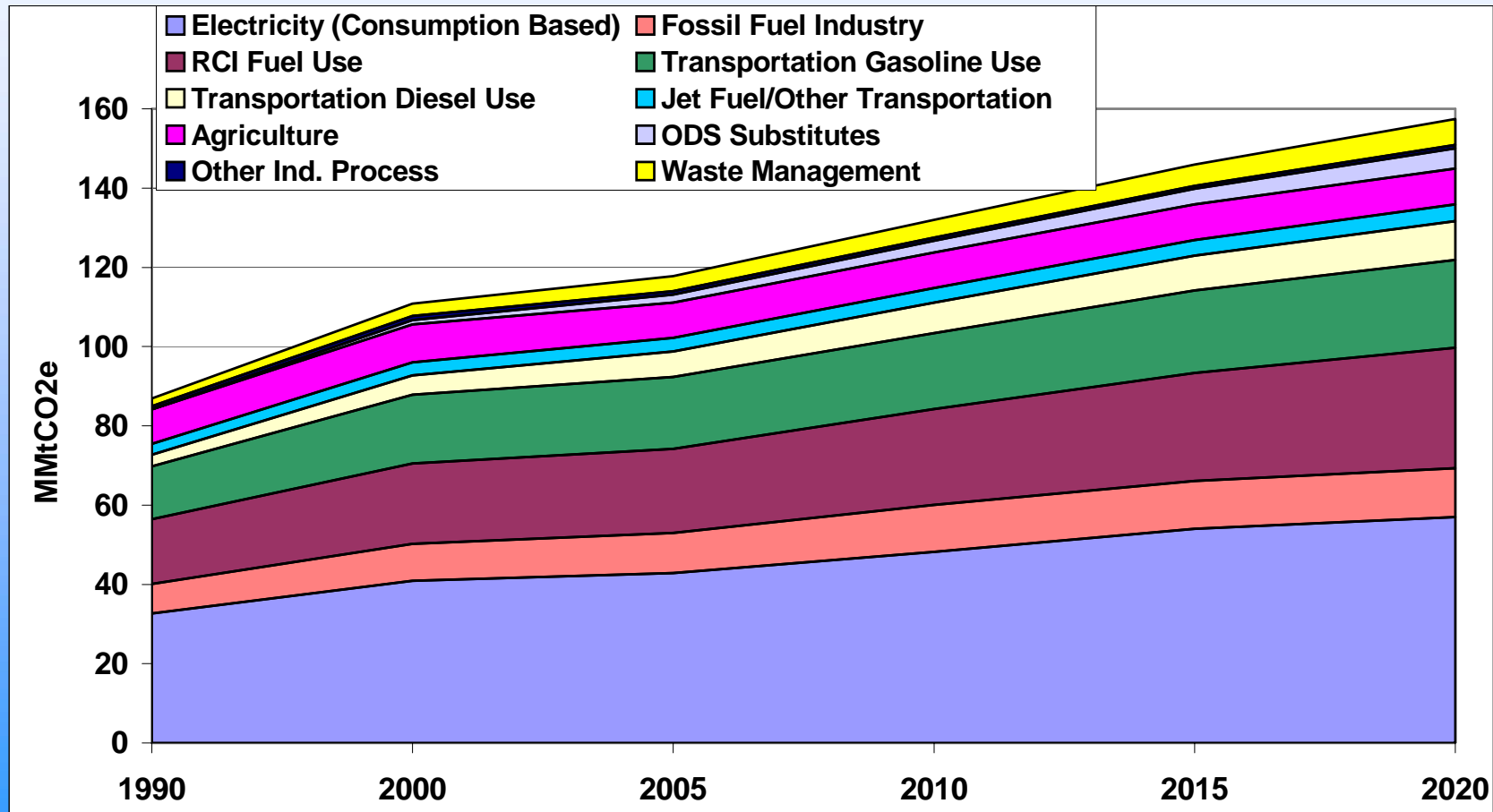
# Colorado Emissions By GHG, Year 2000 (MMtCO<sub>2</sub>e Based)



# Per Capita and GSP/GDP GHG Emissions, 1990-2002

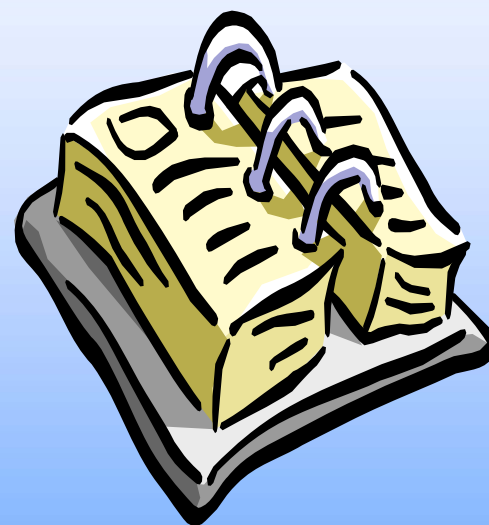


# Gross Colorado GHG Emissions By Sector, 1990-2020



# Next PWG Meeting

- Agenda:
  - Identify suggested additions to the catalog of states actions
  - Identify suggested updates to the Colorado emissions inventory and projection
- Date, Time, and Location TBD



# Public Input, Announcements