

Chapter 1

Background and Overview

Outline and notes for reviewers:

- *Begin w/ Gov's Executive Order. State "his view" of science and impacts. Note conclusions of NMED paper on impacts. There is no intent to give the "CCAG's view" on science and impacts.*
- *Short section on the process CCAG that followed*
- *Short summary of inventory and forecast [link to Chap2]*
- *Summary of recommendations [link to Chap 3-7]*
 - *Show "alligator jaws" graph – emissions w/ and w/out CCAG plan*
 - *Use summary tables for each TWG [but not policy descriptions]*
 - *Present info on oil savings, elec savings, jobs/econ dev*

Background

Recognizing the profound implications that global warming and climate variation could have on the economy, environment and quality of life in the Southwest, New Mexico Governor Bill Richardson signed Executive Order 05-033 on June 5th, 2005, establishing the New Mexico Climate Change Advisory Group (CCAG).¹ The Governor directed the CCAG to prepare a report that includes:

- Proposals for reduction of GHG emissions to reduce New Mexico's total greenhouse gas emissions to 2000 levels by the year 2012, 10% below 2000 levels by 2020 and 75% by 2050.
- An inventory of existing and planned actions that contribute to GHG emissions reductions.
- Consideration of costs and benefits of proposals.
- An inventory of historical and forecasted GHG emissions in New Mexico.
- Findings on initiatives to create meaningful regional and national policy to address climate change.

This report is the outcome of that effort, one that involved a distinguished and broad group of stakeholders, the New Mexico Environment Department and other state agencies, and the Center for Climate Strategies.

The Governor's Executive Order noted the scientific consensus on this issue as embodied by reports issued by the Intergovernmental Panel on Climate Change (IPCC) and the National Academy of Sciences. Climate models indicate that global average temperatures could rise

¹ Appendix A contains the Executive Order. Also available at www.xxx.

from 3 to 10 degrees by the end of this century. The IPCC predicts that such a warming will result in rising sea levels, increased rainfall rates and heavy precipitation events (especially over the higher latitudes) and higher evaporation rates that would accelerate the drying of soils following rain events. With higher sea levels, coastal regions could face increased wind and flood damage, and some models predict an increase the intensity of tropical storms. Executive Order 05-033 also directed State agencies to prepare a study on the potential effects of such warming on New Mexico. That study, issued in December 2005, cites the potential for prolonged drought, increased snowmelt, reduced snow pack, severe forest fires, and other harmful effects.²

The CCAG Process

The CCAG held its first meeting on July 27, 2005, followed by over a year of intensive fact-finding and consensus building. The CCAG met six times, with its last formal meeting on October 30, 2006. During this period five sector-based technical work groups (TWGs) of the CCAG met over 60 times via teleconference, beginning in August 2005 and concluding in October 2006.

The TWGs consisted of CCAG members as well as individuals not on the CCAG with interest and expertise in the issues being addressed by each TWG. The five TWGs were: Energy Supply (ES); Residential, Commercial, Industrial and Waste Management (RCI); Transportation and Land Use (TLU); Agriculture and Forestry (AF); and Cross-Cutting Issues (CC).

The CCAG process involved a model of informed self-determination through a facilitated stepwise consensus building approach. Under the oversight of NMED, the process was conducted by the Center for Climate Strategies (CCS), an independent, expert facilitation and technical analysis team, based on procedures that CCS consultants have used in a number of other state climate change planning initiatives since 2000, adapted specifically for New Mexico.

During the course of the process, the CCAG reached technical consensus on specific mitigation options and evaluative findings related to benefits, costs, and feasibility issues associated with options, followed by development of policy consensus on individual recommendations. The CCAG process sought but did not mandate consensus, and it explicitly documented the level of CCAG support for individual policy recommendations and key findings established through a voting process, including barriers to consensus where they existed.

The recommendations adopted by the CCAG and presented in this report underwent two levels of screening by the CCAG. First, a potential policy option being considered by a TWG was not accepted as a “priority for analysis” and developed for full analysis unless it had a supermajority of support from CCAG members (with a “supermajority” defined as five or fewer “no” votes or objections). Second, after the analyses were conducted, only policy options that received at least majority support from CCAG members were adopted as recommendations by the CCAG and included in this report. In total, of the XX policy recommendations adopted by the CCAG, XX received unanimous consent, XX received a supermajority of support, and XX received a majority of support (see later chapters in this report and the appendix for details).

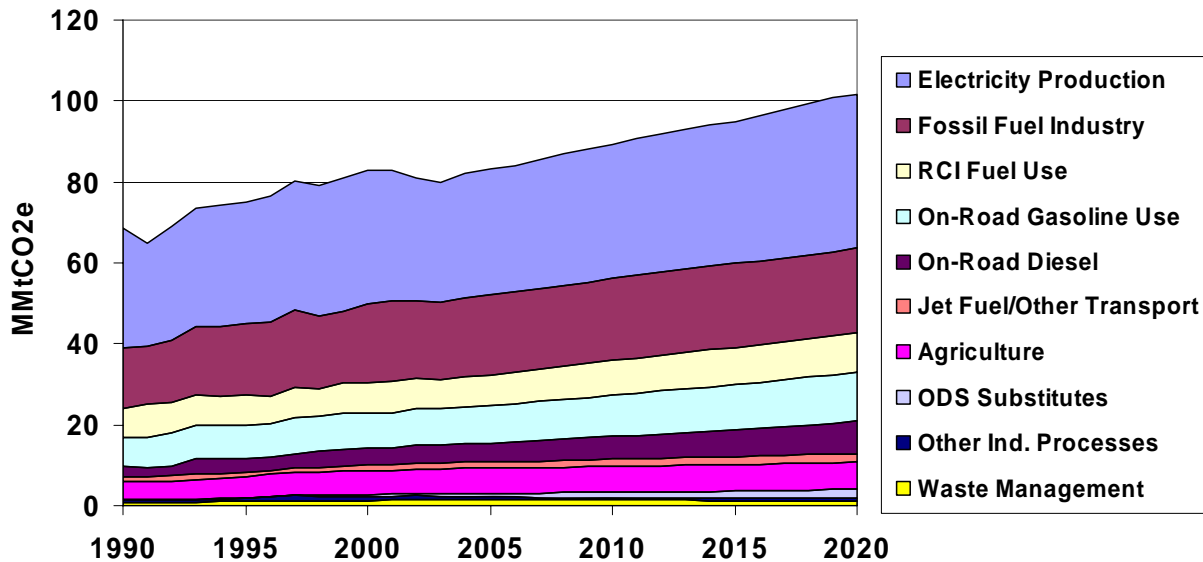
² citation

New Mexico GHG Emissions Inventory and Reference Case Projection

Prior to the first meeting of the CCAG, a preliminary inventory and projection of GHG emissions for New Mexico for years 1990 through 2020 was produced pursuant to the Governor’s Executive Order. This document, entitled “New Mexico GHG Emissions Inventory and Reference Case Projections,” was completed in July 2005, and then approved by unanimous consent at the CCAG’s third meeting following technical review and revision by the CCAG and TWGs. This assessment included detailed coverage of all economic sectors and GHGs in New Mexico, including future emissions trends and assessment issues related to energy, economic and population growth.

The emissions forecast revealed substantial emissions growth rates and related policy challenges. New Mexico’s projected GHG increase of XXX percent over 1990 levels by the year 2020 (without further mitigation actions) is [compare....] Figure 1-xx provides a detailed breakdown of forecasted GHG emissions in New Mexico by sector.

Fig. 1-xx
Historic and Projected GHG Emissions, New Mexico, 1990-2020



The inventory and projection of New Mexico’s GHG emissions provided several critical findings, including:

- Xxx [see AZ-style examples if approp].
- Xxx
- xxx

While New Mexico’s emissions growth rate presents challenges, it also provides major opportunities. Because more than XX% of New Mexico’s GHG emissions are directly related to energy and transportation, the opportunity exists for the State to reduce its GHG emissions while continuing its strong economic growth by being more energy efficient, using more renewable energy sources and increasing the use of cleaner transportation modes, technologies and fuels. The inventory and reference case projections are discussed in more detail in Chapter 2 of this report and the entire study appears in Appendix XX.

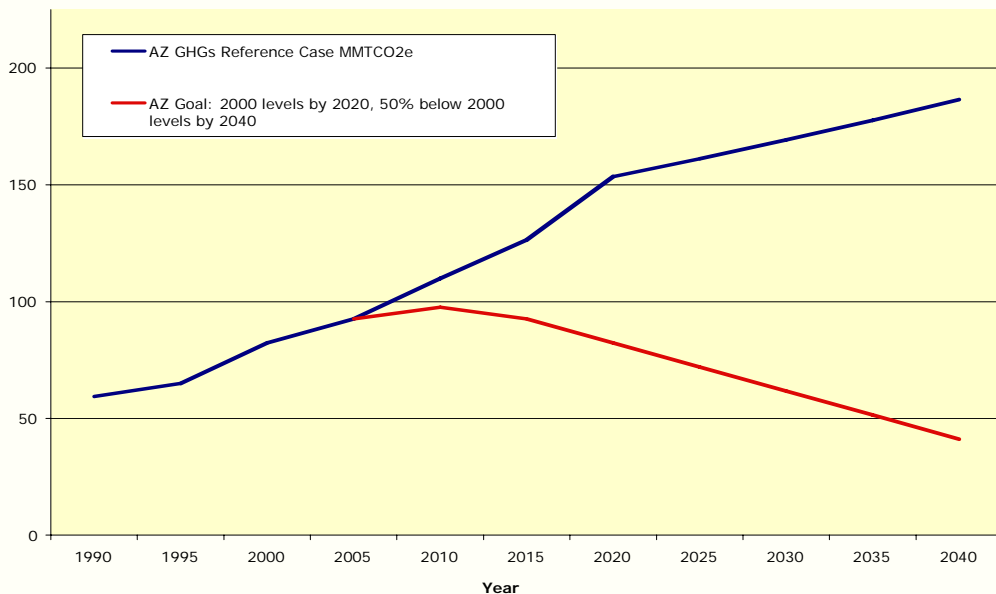
Overview of CCAG Policy Recommendations

The CCAG is making XX policy recommendations to the Governor to help meet the GHG emissions goals in Executive Order XXX. If implemented, the recommendations are projected to [final mitigation case estimate]. Figure 1-x below illustrates the level of reductions that this goal would achieve compared to the projected growth in New Mexico’s GHG emissions (the “reference case” forecast of emissions).

Fig. 1-x

GHG Emissions: Reference Case vs. Mitigation Case with CCAG Policy Recommendations

SEE PLACEHOLDER BELOW FROM AZ – graph will be in style



The Governor's goals are consistent with the levels and framework of goals set by other states, including those in the West, that are implementing GHG reduction strategies. The Table 1-x below shows how the New Mexico's goals compare with the goals set by other states.

Table 1-X

STATE	GHG REDUCTION GOALS & TIMELINES
AZ	2000 levels by 2020; 50 percent below 2000 levels by 2040
CA	2000 levels by 2010; 10 percent below by 2020; 80 percent below by 2050
CT	1990 levels by 2010; 10 percent below by 2020; 75 percent below by 2100
MA	1990 levels by 2010; 10 percent below by 2020; 75 percent below by 2100
ME	1990 levels by 2010; 10 percent below by 2020; 75 percent below by 2100
NJ	5 percent below 1990 by 2005
NM	2000 by 2012; 10 percent below by 2020; 75 percent below 2050
NY	5 percent below 1990 by 2010
OR	1990 by 2010; 10 percent below by 2020; 75 percent by 2100
RI	1990 by 2010; 10 percent below by 2020; 75 percent by 2100
WA (Puget Sound)	1990 by 2010; 10 percent below by 2020; 75 percent by 2100

The CCAG's recommendations are summarized briefly in words in the Executive Summary, along with rankings of the options in terms of total GHG reductions and cost-effectiveness. The five tables below provide numeric estimates of GHG reductions and costs for individual options developed by the five Technical Work Groups:

- Cross Cutting Issues (CC)
- Residential, Commercial, Industrial (RCI)
- Energy Supply (ES)
- Transportation and Land Use (TLU)
- Agriculture and Forestry (AF)

Detailed descriptions and analysis of these recommendations are presented in Chapters 3 through 7 of this report, and in the Appendices.

Although not prepared in coordination with other state and regional actions, the recommendations adopted by the CCAG are consistent with and supportive of resolutions adopted by the Western Governors Association (WGA), including those adopted at its June 2006 annual meeting in Sedona, Arizona, pertaining to “Regional and National Policies Regarding Global Climate Change,”³ “Clean and Diversified Energy for the West,”⁴ and “Transportation Fuels for the Future,”⁵ as well as the recommendations of the WGA’s Clean and Diversified Energy Advisory Committee.⁶

The CCAG’s recommendations also complement other efforts underway in New Mexico, including Xxx. This underscores the potential co-benefits of the CCAG’s recommended policy options.

Present info on oil savings, elec savings, jobs/econ dev...xxx...

³ Resolution 06-3 <http://www.westgov.org/wga/policy/06/climate-change.pdf>

⁴ Resolution 06-10 <http://www.westgov.org/wga/policy/06/clean-energy.pdf>

⁵ Resolution 06-20 <http://www.westgov.org/wga/policy/06/futurefuels.pdf>

⁶ <http://www.westgov.org/wga/meetings/am2006/CDEAC06.pdf>

ADD ALL 5 TWG TABLES, E.g., TLU below

Transportation and Land Use Sector Summary Table of Policy Options						
3 “Unanimous Consent” options from CCAG#5 10 “Pending” options from CCAG#5						
Option Number	Policy Name	Estimated 2012 GHG Reduction (MMtCO ₂ e)	Estimated 2020 GHG Reduction (MMtCO ₂ e)	Cumulative 2007-2020 GHG Reduction (MMtCO ₂ e)	Estimated Cost or Cost Saving (\$/tCO ₂ e)	Level of CCAG Support
TLU-1	State Clean Car Program	0.4	1.9	10.4	-\$117	<i>Unanimous Consent</i>
TLU-2	Low Rolling Resistance Tires	0.5	0.6	5.5	-\$92	<i>Pending</i>
TLU-3	Low-GHG Operation of State Fleet Vehicles	<i>Not estimated</i>				<i>Pending</i>
TLU-4	Pay-As-You-Drive Insurance	0.2	1.0	5.0	Zero net cost	<i>Pending</i>
TLU-5	Incentive/Disincentive Options Bundle	<i>Not estimated</i>				<i>Pending</i>
TLU-6	Alternative Fuels Use					
	Ethanol	0.1	0.3	2.0	Zero Zero under review under review	<i>Unanimous Consent</i>
	Biodiesel	0.2	0.6	4.1		
	Hybrids/LSVs	0.1	0.6	2.7		
	ZEVs/LSVs	<u>0.0</u>	<u>0.1</u>	<u>0.2</u>		
	Total for Option ^a	0.4	1.7	9.1		
^a May not add exactly due to rounding.						

<i>VMT Reduction Bundle TLU-7 to TLU-11</i>						
TLU-7	Infill, Brownfield Re-development	1.2	1.3	13.4	Zero net costs or positive cost savings	<i>Pending</i>
TLU-8	Transit-Oriented Development					<i>Pending</i>
TLU-9	Smart Growth Planning, Modeling, Tools					<i>Pending</i>
TLU-10	Multimodal Transportation Bundle					<i>Pending</i>
TLU-11	Promote LEED for Neighborhood Development					<i>Pending</i>
TLU-12	Targeted Open Space and Croplands Protection	<i>Analyzed in Agriculture and Forestry TWG (F-1 and A-8)</i>				
TLU-13	Diesel Retrofits	<i>Incorporated as part of TLU-5</i>				
TLU-14	Truck Stop Electrification/Anti-Idling	0.4	0.7	6.3	\$4	<i>Unanimous Consent</i>
TLU-15	Intermodal Freight Initiatives	0.1	0.5	2.6	Not estimated	<i>Pending</i>
TLU-16	Lower Speed Limit for Commercial Trucks Options:					<i>Pending</i>
	Trucks only (original)	0.2	0.3	2.8	\$51	
	All vehicles, 60 mph	0.6	0.7	7.3	\$83	
	All vehicles, 65 mph	0.3	0.4	3.9	\$53	
Accounting for Overlap Among Options		0.2	1.1	5.6		
Net Total All Options		3.0	6.7	49.4		
Additional Emissions Savings from Recent Actions (not included in forecast or in policy options above) <i>(National Renewable Fuel Standard)</i>		0.1	0.1	1.1		
Net Total All Options Plus Recent Actions		3.1	6.8	50.5		