



# NEW MEXICO CLIMATE CHANGE ADVISORY GROUP MEETING #4 APRIL 26, 2006



# TODAY'S AGENDA

- **CALL TO ORDER**
- **INTRODUCTIONS**
- **REVIEW MEETING AGENDA**
- **APPROVAL OF THIRD CCAG MEETING SUMMARY**
- **REVIEW OF NMED CLIMATE IMPACTS STUDY**
- **REPORT ON “CONTRIBUTING” ISSUES**
- **REPORT ON ECONOMIC ANALYSIS METHODS**
- **REVIEW OF CCAG PROGRESS AND TARGETS**
- **CONSIDERATION OF NEXT STEPS FOR DRAFT POLICY OPTIONS AND CONSIDERATION OF ADDITIONAL PRIORITIES FOR ANALYSIS**
- **REVIEW OF FINAL REPORT OUTLINE AND PLANS**
- **NEXT MEETING AGENDA, TIME & LOCATION**
- **PUBLIC INPUT AND ANNOUNCEMENTS**

# POTENTIAL NEW MEXICO CLIMATE IMPACTS

- REFER TO NMED HANDOUTS

# OTHER TWG REPORTS

- **CONTRIBUTING ISSUES MATRIX**
- **ECONOMIC ANALYSIS METHODS**

# CCAG PROGRESS

1. DEVELOP INITIAL GHG INVENTORIES AND FORECASTS (COMPLETED)
2. IDENTIFY CONCEIVABLE GHG MITIGATION OPTIONS (COMPLETED)
3. IDENTIFY INITIAL PRIORITIES FOR EVALUATION (COMPLETED)
4. EVALUATE GHG REDUCTION POTENTIAL AND COST-EFFECTIVENESS OF INDIVIDUAL OPTIONS; ALONG WITH ANCILLARY AND FEASIBILITY ISSUES AS NEEDED (UNDERWAY)
5. IDENTIFY POTENTIAL BARRIERS, ALTERNATIVE POLICY DESIGN NEEDS FOR INDIVIDUAL OPTIONS (UNDERWAY)
6. MODIFY, ADD OR SUBTRACT OPTIONS AS NEEDED (UNDERWAY)
7. EVALUATE CUMULATIVE RESULTS OF OPTIONS AGAINST E.O. TARGETS
8. ITERATE TO CONSENSUS, WITH VOTES AS NEEDED
9. AGGREGATE OPTIONS INTO IMPLEMENTATION SCENARIOS
10. FINALIZE RECOMMENDATIONS AND REPORT LANGUAGE

# E.O. TARGETS

- **NM INVENTORY AND FORECAST**
  - **PRODUCTION BASIS, GROSS AND NET**
- **NM INVENTORY AND FORECAST**
  - **CONSUMPTION BASIS GROSS AND NET**
- **NM EXECUTIVE ORDER TARGET COMPARISONS**
  - **PRODUCTION GROSS V. NET**
  - **CONSUMPTION GROSS V. NET**

# NM GHGs - PRODUCTION

| (Million Metric Tons CO <sub>2</sub> e)               | 1990         | 2000         | 2010         | 2020         |
|---|--------------|--------------|--------------|--------------|
| <b>Energy</b>   | <b>62.6</b>  | <b>74.2</b>  | <b>79.7</b>  | <b>90.9</b>  |
| Electricity Production                                | 29.5         | 33.2         | 33.3         | 38.1         |
| Transportation Fuel Use                               | 11.0         | 14.2         | 17.6         | 22.3         |
| Fossil Fuel Industry                                  | 15.2         | 19.5         | 20.3         | 20.7         |
| Res/Comm/Other Ind. Fuel Use                          | 7.0          | 7.3          | 8.5          | 9.9          |
| <b>Other</b>  | <b>5.9</b>   | <b>8.7</b>   | <b>9.7</b>   | <b>10.8</b>  |
| Industrial Processes                                  | 0.5          | 1.5          | 2.0          | 2.8          |
| Agriculture   | 4.5          | 6.0          | 6.4          | 6.7          |
| Waste Management                                      | 0.8          | 1.2          | 1.4          | 1.2          |
| <b>Gross Emissions</b>                                | <b>68.5</b>  | <b>82.9</b>  | <b>89.4</b>  | <b>101.7</b> |
| <i>change relative to 1990</i>                        |              | +21%         | +31%         | +48%         |
| <i>change relative to 2000</i>                        |              |              | +8%          | +23%         |
| <b>Forestry and Land Use</b>                          | <b>-20.9</b> | <b>-20.9</b> | <b>-20.9</b> | <b>-20.9</b> |
| <b>Net Emissions (includes Forestry and Land Use)</b> | <b>47.6</b>  | <b>62.0</b>  | <b>68.5</b>  | <b>80.8</b>  |
| <i>change relative to 1990</i>                        |              | +30%         | +44%         | +70%         |
| <i>change relative to 2000</i>                        |              |              | +11%         | +30%         |
| <b>Per Capita Gross Emissions (Mt)</b>                | 45           | 46           | 42           | 43           |
| <b>Per Capita Net Emissions (Mt)</b>                  | 31           | 34           | 32           | 34           |

# NM GHGs - CONSUMPTION

| (Million Metric Tons CO <sub>2</sub> e) | 1990         | 2000         | 2010         | 2020         |
|---|--------------|--------------|--------------|--------------|
| <b>Energy</b>                           | <b>39.2</b>  | <b>46.7</b>  | <b>54.3</b>  | <b>66.6</b>  |
| <i>Electricity Use</i>                  | 15.8         | 19.7         | 21.4         | 26.4         |
| Transportation Fuel Use                 | 11.0         | 14.2         | 17.6         | 22.3         |
| <i>Fossil Fuel Industry</i>             | 5.4          | 5.4          | 6.8          | 8.1          |
| Res/Comm/Other Ind. Fuel Use            | 7.0          | 7.3          | 8.5          | 9.9          |
| <b>Other</b>                            | <b>5.9</b>   | <b>8.7</b>   | <b>9.7</b>   | <b>10.8</b>  |
| Industrial Processes                    | 0.5          | 1.5          | 2.0          | 2.8          |
| Agriculture                             | 4.5          | 6.0          | 6.4          | 6.7          |
| Waste Management                        | 0.8          | 1.2          | 1.4          | 1.2          |
| <b>Gross Emissions</b>                  | <b>45.1</b>  | <b>55.4</b>  | <b>64.0</b>  | <b>77.3</b>  |
| <i>change relative to 1990</i>          |              | +23%         | +42%         | +72%         |
| <i>change relative to 2000</i>          |              |              | +16%         | +40%         |
| <b>Forestry and Land Use</b>            | <b>-20.9</b> | <b>-20.9</b> | <b>-20.9</b> | <b>-20.9</b> |
| <b>Net Emissions (incl. forestry)</b>   | <b>24.2</b>  | <b>34.5</b>  | <b>43.1</b>  | <b>56.4</b>  |
| <i>change relative to 1990</i>          |              | +43%         | +78%         | +134%        |
| <i>change relative to 2000</i>          |              |              | +25%         | +64%         |
| <b>Per Capita Gross Emissions (Mt)</b>  | 30           | 30           | 30           | 32           |
| <b>Per Capita Net Emissions (Mt)</b>    | 16           | 19           | 20           | 24           |

# NM E.O. TARGETS

## GHGs IN MMTCO<sub>2</sub>E

| <b>Consumption Basis Net</b>   |             |             |             |             |
|--------------------------------|-------------|-------------|-------------|-------------|
| <b>Year</b>                    | <b>1990</b> | <b>2000</b> | <b>2012</b> | <b>2020</b> |
| <b>GHG Emissions</b>           | 24.2        | 34.5        | 45.8        | 56.4        |
| <b>Targets</b>                 |             |             | 34.5        | 31.1        |
| <b>Delta</b>                   |             |             | 11.3        | 25.4        |
| <b>Consumption Basis Gross</b> |             |             |             |             |
| <b>Year</b>                    | <b>1990</b> | <b>2000</b> | <b>2012</b> | <b>2020</b> |
| <b>GHG Emissions</b>           | 45.1        | 55.4        | 66.7        | 77.3        |
| <b>Targets</b>                 |             |             | 55.4        | 49.9        |
| <b>Delta</b>                   |             |             | 11.3        | 27.4        |
| <b>Production Basis Net</b>    |             |             |             |             |
| <b>Year</b>                    | <b>1990</b> | <b>2000</b> | <b>2012</b> | <b>2020</b> |
| <b>GHG Emissions</b>           | 47.6        | 62.0        | 71.0        | 80.8        |
| <b>Targets</b>                 |             |             | 62.0        | 55.8        |
| <b>Delta</b>                   |             |             | 9.0         | 25.0        |
| <b>Production Basis Gross</b>  |             |             |             |             |
| <b>Year</b>                    | <b>1990</b> | <b>2000</b> | <b>2012</b> | <b>2020</b> |
| <b>GHG Emissions</b>           | 68.5        | 82.9        | 91.9        | 101.7       |
| <b>Targets</b>                 |             |             | 82.9        | 74.6        |
| <b>Delta</b>                   |             |             | 9.0         | 27.1        |

# TWG PRIORITIES

| <b>TWG</b>                         | <b># CURRENT PRIORITIES FOR ANALYSIS/DEVELOPMENT*</b> |
|------------------------------------|---|
| <b>ENERGY SUPPLY</b>               | <b>14</b>   |
| <b>RCI</b>                         | <b>20</b>   |
| <b>TRANSPORTATION AND LAND USE</b> | <b>12</b>   |
| <b>AGRICULTURE AND FORESTRY</b>    | <b>14</b>   |
| <b>CROSS CUTTING ISSUES</b>        | <b>3</b>  |
| <b>TOTAL</b>                       | <b>63</b>   |
|                                    | <b>*MAY INCLUDE OVERLAPPING OPTIONS</b>               |

# DECISION CRITERIA

- **GHG REDUCTION POTENTIAL (CO<sub>2</sub>E)**
- **DIRECT COST PER TON GHG REMOVED**
- **CONTRIBUTING ISSUES**
- **FEASIBILITY ISSUES**

# NEXT STEPS FOR DRAFT OPTIONS

- **THREE POTENTIAL NEXT STEPS FOR EACH DRAFT POLICY OPTION:**
  1. **QUANTIFY BASED ON TWG STRAW PROPOSALS, OR...**
  2. **DEVELOP QUALITATIVE MATERIAL FOR OPTIONS NOT TO BE QUANTIFIED, OR...**
  3. **QUANTIFY BASED ON CCS DEVELOPED STRAW PROPOSALS WHERE TWG STRAW PROPOSAL IS LACKING, OR...**
  4. **CONTINUE TWG DEVELOPMENT OF STRAW PROPOSALS AND THEN PROCEED TO QUANTIFICATION**

# BREAK



# AF OPTIONS

- **REFER TO POLICY DESCRIPTION HANDOUT**
  - **TABLES 9 & 10**
    - **TABLE 9 LIST OF OPTIONS**
    - **TABLE 10 POLICY DESCRIPTIONS**

# RCI OPTIONS

- **REFER TO POLICY DESCRIPTION HANDOUT**
  - **TABLES 5 & 6**
    - **TABLE 5 LIST OF OPTIONS**
    - **TABLE 6 POLICY DESCRIPTIONS**

# ES OPTIONS

- **REFER TO POLICY DESCRIPTION HANDOUT**
  - **TABLES 3 & 4**
    - **TABLE 3 LIST OF OPTIONS**
    - **TABLE 4 POLICY DESCRIPTIONS**

# TLU OPTIONS

- **REFER TO POLICY DESCRIPTION HANDOUT**
  - **TABLES 7 & 8**
    - **TABLE 7 LIST OF OPTIONS**
    - **TABLE 8 POLICY DESCRIPTIONS**

# CC OPTIONS

- **REFER TO POLICY DESCRIPTION HANDOUT**
  - **TABLES 11 & 12**
    - **TABLE 11 LIST OF OPTIONS**
    - **TABLE 12 POLICY DESCRIPTIONS**

# DRAFT CCAG REPORT

- **EXECUTIVE SUMMARY**
- **BACKGROUND, PURPOSE AND GOALS**
  - DESCRIPTION OF THE PROCESS
  - HISTORY AND STATUS OF STATE ACTIONS
  - STATE EMISSIONS INVENTORY & FORECAST
- **POLICY RECOMMENDATIONS & RESULTS**
  - AGRICULTURE AND FORESTRY
  - ENERGY SUPPLY
  - RESIDENTIAL, COMMERCIAL, INDUSTRIAL
  - TRANSPORTATION & LAND USE
  - CROSS CUTTING ISSUES
- **APPENDICES**

# CCAG #5 MEETING

- **AGENDA**
  - REVIEW OF QUANTIFICATION OF DRAFT POLICY OPTIONS
  - CONSIDERATION OF DRAFT POLICY OPTIONS FOR APPROVAL, IDENTIFICATION OF ALTERNATIVES AS NEEDED
  - REVIEW OF FINAL REPORT OUTLINE AND REVIEW PLANS
- **MEETING DATE AND TIME**
- **MEETING LOCATION**

# **PUBLIC INPUT, ANNOUNCEMENTS**