



New Mexico Climate Change Advisory Group

RESIDENTIAL, COMMERCIAL AND INDUSTRIAL (RCI) TECHNICAL WORK GROUP CONFERENCE CALL #1

SEPTEMBER 20, 2005



TODAY'S AGENDA

1. **CALL TO ORDER**
2. **INTRODUCTION OF TECHNICAL WORK GROUP (TWG) MEMBERS**
3. **REVIEW OF TWG ORGANIZATION AND LOGISTICS**
4. **REVIEW OF GROUND RULES**
5. **REVIEW AND DISCUSSION OF THE DRAFT GHG EMISSIONS INVENTORY AND FORECAST FOR RCI SECTORS**
6. **REVIEW AND DISCUSSION OF LIST OF POTENTIAL STATE ACTIONS**
7. **DISCUSSION OF NEXT STEPS TOWARD IDENTIFICATION OF PRIORITIES FOR ANALYSIS OF OPTIONS**
8. **CALL TO THE ADDITIONAL COMMENTS AND INPUT**
9. **PROPOSED AGENDA ITEMS FOR NEXT MEETING**
10. **ANNOUNCEMENTS**

AGENDA ITEMS 1-4

- **CALL TO ORDER**
- **INTRODUCTION OF TECHNICAL WORK GROUP MEMBERS**
- **REVIEW OF TECHNICAL WORK GROUP ORGANIZATION AND LOGISTICS**
- **REVIEW OF GROUND RULES**

AGENDA ITEM 5

- **REVIEW AND DISCUSSION OF THE DRAFT NEW MEXICO GREENHOUSE GAS EMISSIONS INVENTORY AND FORECAST FOR THE RCI SECTOR**

NEW MEXICO GHG EMISSIONS

- **INVENTORY AND REFERENCE CASE PROJECTIONS**
 - **INITIAL ANALYSIS BY CCS FOR FURTHER DISCUSSION AND REVISION**
 - **INVENTORY OF HISTORICAL EMISSIONS FROM 1990 TO MOST RECENT DATA YEAR (2000-2004, DEPENDING ON SECTOR)**
 - **PROJECTION OF EMISSIONS TO 2020**

COVERAGE

- **SIX GASES PER USEPA AND UNFCCC GUIDELINES**
 - CARBON DIOXIDE (CO₂), METHANE (CH₄), NITROUS OXIDE (N₂O), HYDROFLUOROCARBONS (HFCs), PERFLUOROCARBONS (PFCs), SULFUR HEXAFLUORIDE (SF₆)
 - BLACK CARBON CONSIDERED SEPARATELY
- **ALL MAJOR EMITTING SECTORS**
 - ELECTRICITY SUPPLY
 - RESIDENTIAL, COMMERCIAL, INDUSTRIAL FUEL USE
 - TRANSPORTATION
 - AGRICULTURE AND FORESTRY
 - INDUSTRIAL PROCESSES AND OTHER SOURCES

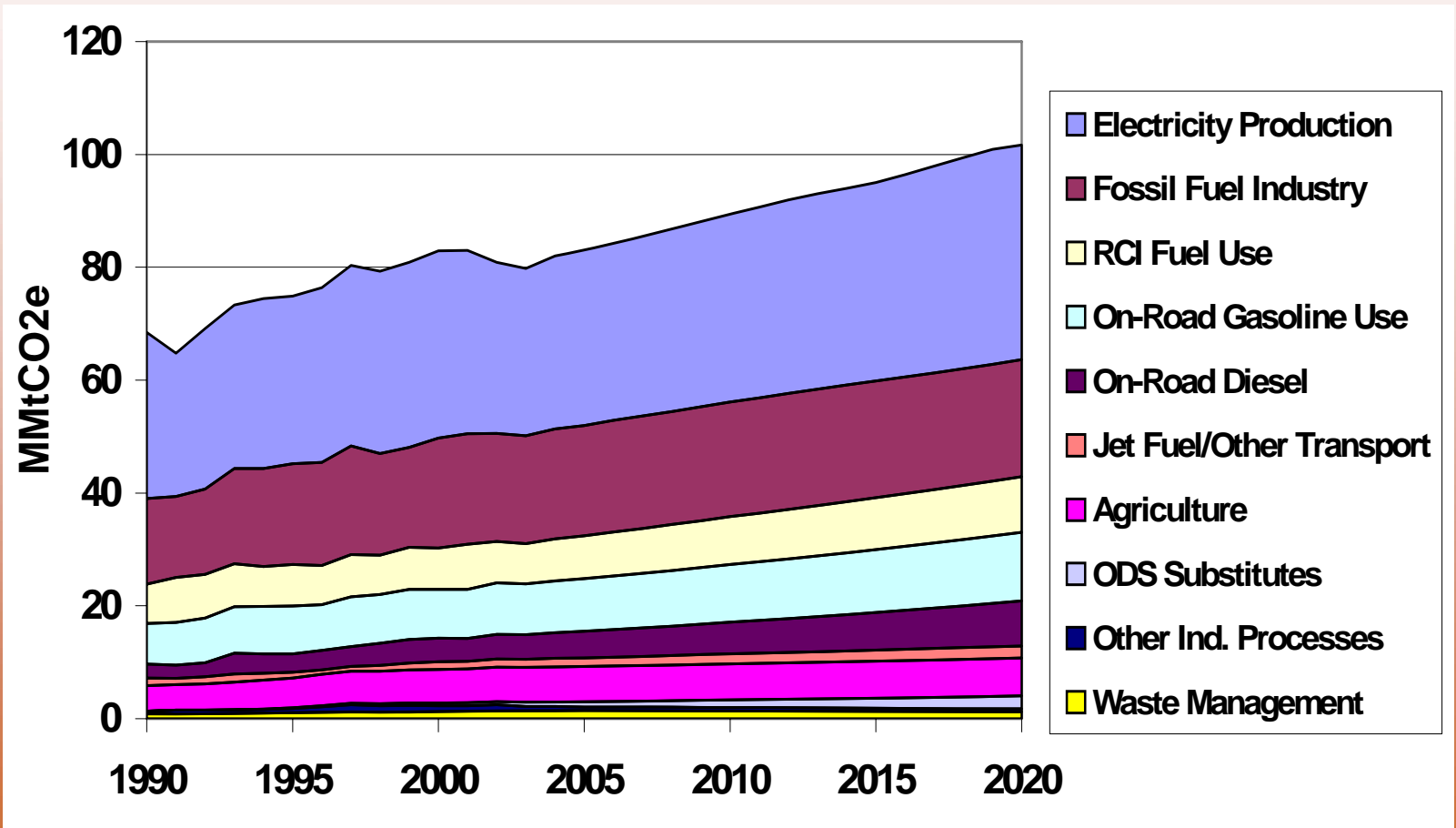
INVENTORY APPROACH

- **STANDARD US EPA AND UN METHODOLOGIES, GUIDELINES, AND TOOLS**
- **EMPHASIS ON TRANSPARENCY, CONSISTENCY, AND SIGNIFICANCE**
- **PREFERENCE FOR NEW MEXICO OR REGIONAL DATA, WHERE AVAILABLE**
- **CONSUMPTION AND PRODUCTION-BASIS EMISSIONS FROM ELECTRICITY GENERATION AND FOSSIL FUEL PRODUCTION**
 - **VERY SIMPLIFIED APPROACH USED FOR INITIAL ANALYSIS**

PROJECTION APPROACH

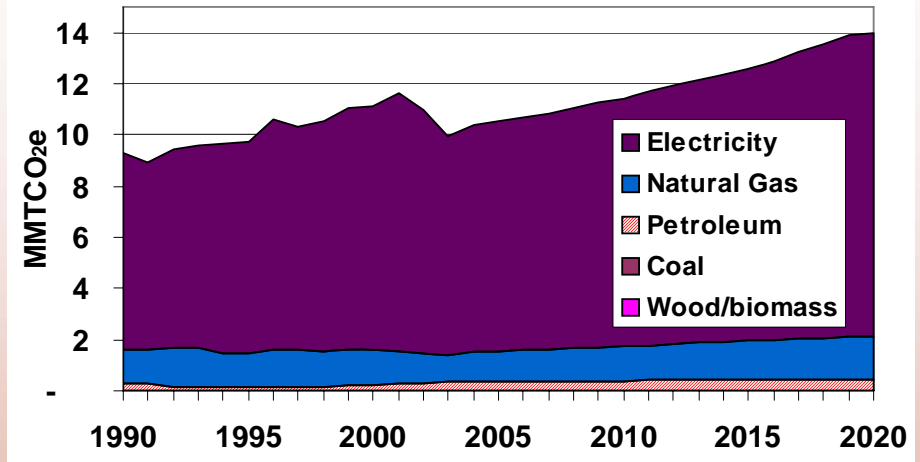
- **REFERENCE CASE ASSUMES NO MAJOR CHANGES FROM BUSINESS-AS-USUAL**
 - INCLUDES APPROVED POLICIES AND ACTIONS TO THE EXTENT POSSIBLE (E.G. RENEWABLE PORTFOLIO STANDARD)
- **GROWTH ASSUMPTIONS FROM EXISTING SOURCES**
 - ELECTRICITY DEMAND GROWTH FROM NM ENERGY, MINES AND NATURAL RESOURCES DEPARTMENT ADVICE
 - POPULATION AND ECONOMIC FORECASTS FROM NM DEPARTMENT OF LABOR
 - SEVERAL ASSUMPTIONS FROM US DOE'S ANNUAL ENERGY OUTLOOK 2005

NEW MEXICO GHG EMISSIONS

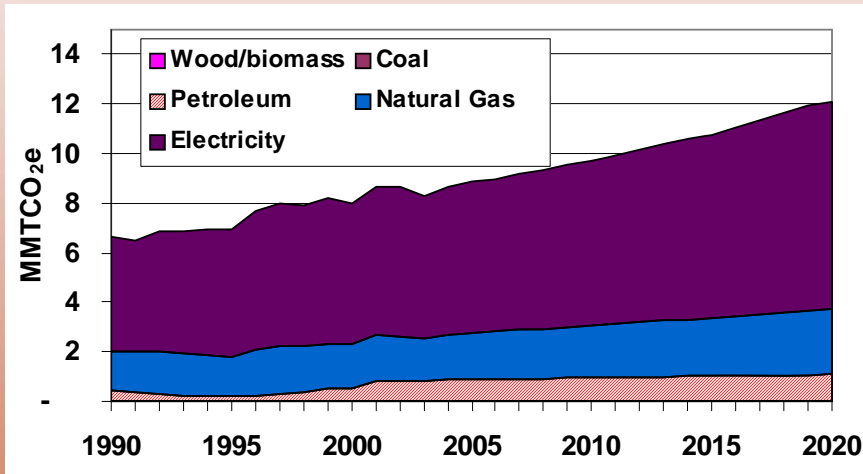


RCI

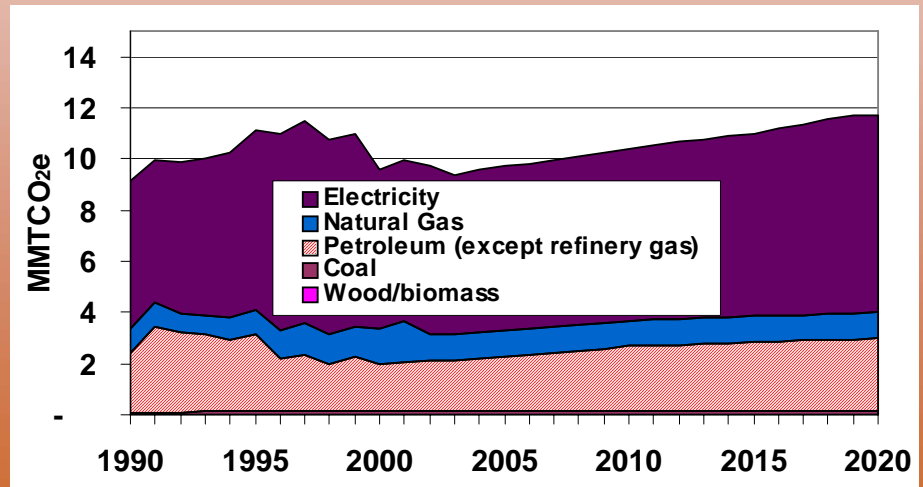
Commercial Sector



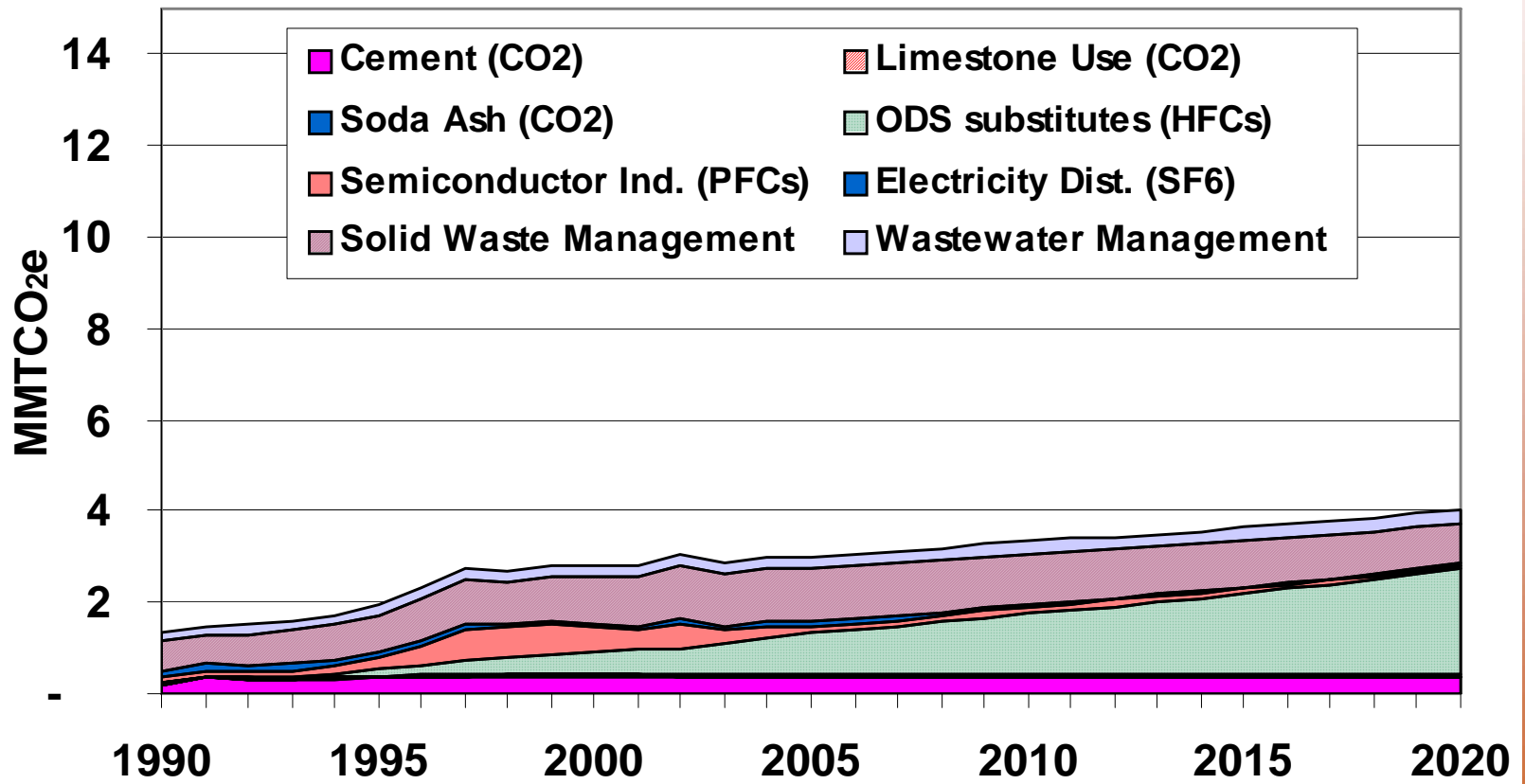
Residential Sector



Industrial Sector



INDUSTRIAL PROCESSES AND WASTE MANAGEMENT



KEY ASSUMPTIONS, UNCERTAINTIES

- **FOR RESIDENTIAL/COMMERCIAL/INDUSTRIAL ENERGY CONSUMPTION EMISSIONS**
 - **2.5% ANNUAL GROWTH IN ELECTRICITY CONSUMPTION (EMNRD)**
 - **ELECTRICITY EMISSION RATES FROM ASSUMPTIONS ON NM POWER GENERATION**
 - **1.9% ANNUAL GROWTH IN NATURAL GAS CONSUMPTION (PNM REPORT)**
 - **1.9% ANNUAL GROWTH IN OIL CONSUMPTION (USDOE REGIONAL GROWTH)**

KEY ASSUMPTIONS, UNCERTAINTIES...

- **FOR ENERGY END-USE SECTORS**
 - **NEW REFINERY AND CEMENT PLANTS NOT YET CONSIDERED**
 - **OIL, GAS, AND COAL USE GROWTH SCALED TO NEW MEXICO FROM US DOE REGIONAL PROJECTIONS**
 - **GAS GROWTH RATES SHOULD BE INFORMED BY IN-STATE GAS COMPANIES CONSUMPTION**
 - **OIL PRODUCT USE CAN VARY SIGNIFICANTLY OVER TIME**

KEY ASSUMPTIONS, UNCERTAINTIES...

- **FOR INDUSTRIAL PROCESS EMISSIONS**
 - HFC AND PFC – BASED ON NATIONAL PROJECTIONS (US EPA 2002 CLIMATE ACTION REPORT)
 - CEMENT AND SODA ASH – BASED ON POPULATION
 - LIME MANUFACTURE,
LIMESTONE/DOLOMITE/COAL MINING – ASSUME NO GROWTH

KEY ASSUMPTIONS, UNCERTAINTIES...

- **FOR WASTE MANAGEMENT**
 - **SOLID WASTE EMISSIONS PROJECTIONS BASED ON NATIONAL EPA PROJECTIONS (ADJUSTED FOR NM POPULATION GROWTH)**
 - **WASTEWATER EMISSIONS GROW WITH POPULATION**

DATA SOURCES

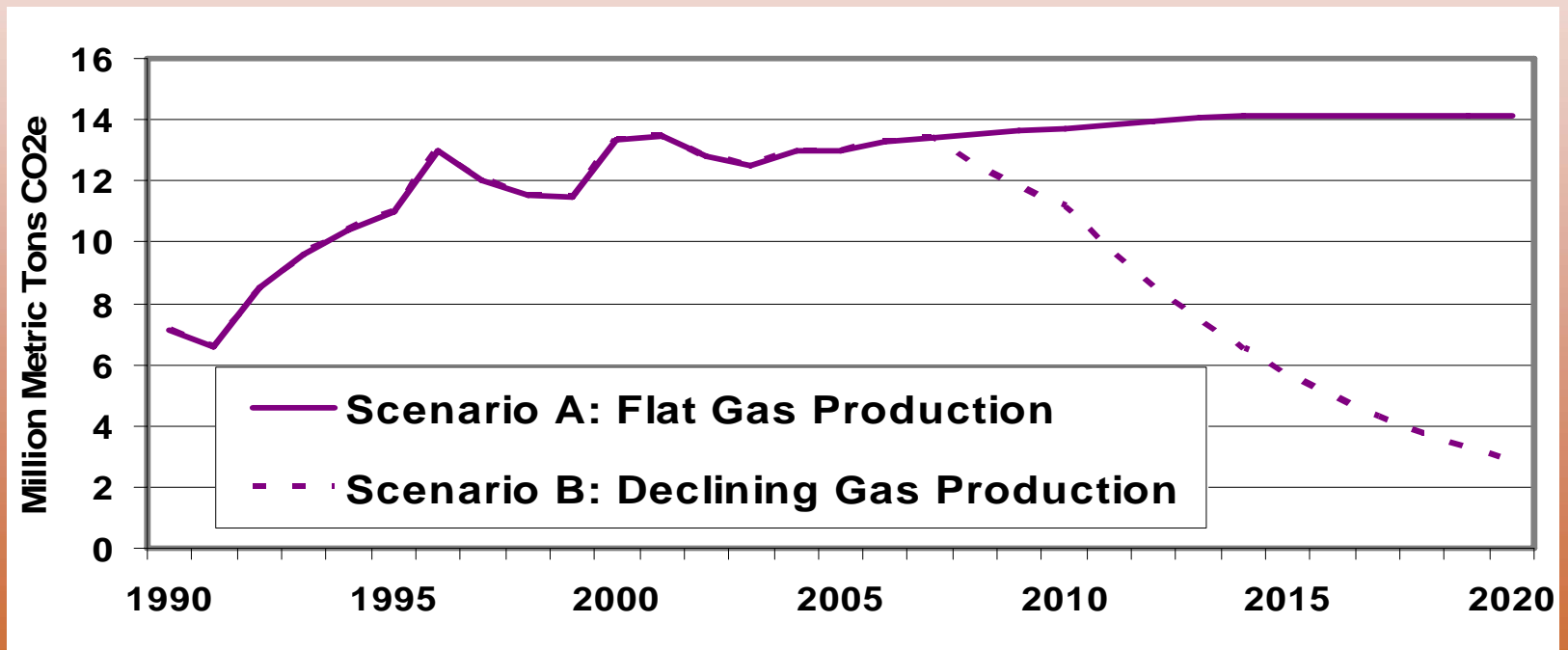
- **FOR END-USES:**
 - US DOE ENERGY INFORMATION ADMINISTRATION, NEMS ANNUAL ENERGY OUTLOOK 2005. STATE ENERGY DATA SYSTEM – HISTORIC CONSUMPTION, EMNRD, PNM REPORTS
- **FOR FOSSIL FUEL PRODUCTION:**
 - USEPA GHG TOOL, NM OIL AND GAS ASSOCIATION, NMEMNRD, NMTECH, BUREAU OF LAND MANAGEMENT
- **FOR INDUSTRIAL PROCESS:**
 - US GEOLOGICAL SURVEY, US OFFICE OF PIPELINE SAFETY, US EPA NATIONAL INVENTORY OF GHG EMISSIONS & US CLIMATE ACTION REPORT
- **FOR WASTES:**
 - BIOCYCLE MAGAZINE, INFORMATION COLLECTED BY US EPA FROM STATE SOLID WASTE OFFICES FOR STATE GHG INVENTORY TOOL

AREAS FOR DISCUSSION

- **GROWTH IN ACTIVITY (E.G. HOUSING STARTS), FUEL AND ELECTRICITY USE**
- **CLOSER ASSESSMENT OF PROCESS EMISSIONS (SEMICONDUCTORS, CEMENT) AND WASTE MANAGEMENT**
- **FUTURE MINING ACTIVITY AND OTHER INDUSTRIAL FUEL USES**
- **EMISSIONS RATE FOR ELECTRICITY CONSUMED – EMISSIONS CURRENTLY BASED ON STATE AVERAGE EMISSION (WILL ITERATE WITH ES GROUP)**
- **FOSSIL FUEL PRODUCTION AND PROCESSING EMISSIONS ESTIMATES AND PROJECTIONS, AS RELEVANT TO RCI GROUP**

NATURAL GAS PRODUCTION

- FUTURE EMISSIONS
- LARGE UNCERTAINTIES



AGENDA ITEM 6

- **REVIEW AND DISCUSSION OF LIST OF POTENTIAL STATE ACTIONS**
 - ENERGY EFFICIENCY PROGRAMS, FUNDS, AND GOALS
 - APPLIANCE STANDARDS
 - BUILDINGS
 - EDUCATION AND OUTREACH
 - PRICING AND PURCHASING
 - TECHNOLOGY SPECIFIC POLICIES
 - NON-ENERGY EMISSIONS (HFCs, PFCs, SF6, CO₂ PROCESS EMISSIONS)
 - GHG EMISSIONS-SPECIFIC GOALS AND POLICIES
 - OTHER

DECISION CRITERIA

- **GHG REDUCTION POTENTIAL**
- **COST EFFECTIVENESS**
- **CO-BENEFITS AND ANCILLARY IMPACTS**
- **FEASIBILITY ISSUES**

AGENDA ITEM 7

- **DISCUSSION OF NEXT STEPS TOWARD IDENTIFICATION OF PRIORITIES FOR ANALYSIS OF OPTIONS**

AGENDA ITEM 8

- **CALL TO THE PUBLIC**

AGENDA ITEM 9

- **PROPOSED AGENDA ITEMS FOR NEXT MEETING**
 - **POTENTIAL STATE ACTIONS: CONTINUED DISCUSSION/DEVELOPMENT OF PRIORITIES FOR ANALYSIS**
 - **CONTINUED DISCUSSION OF INVENTORY AND REFERENCE CASE (IF NEEDED?)**

AGENDA ITEM 10

- ANNOUNCEMENTS