Cross-Cutting Issues
Technical Working Group of the
Alaska Climate Change Mitigation
Advisory Group

Meeting #1: June 17, 2008, Noon-2:00 PM
Governor’s Climate Change Sub-Cabinet
Center for Climate Strategies

Call Agenda

• Welcome and Introductions
• Purpose and goals
• Part 1: AK Climate Change Mitigation Advisory Group and Technical Working Group Process
• Part 2: Review Alaska Greenhouse Gas Emissions Inventory and Forecast
• Part 3: Review and Discuss Catalog of State Actions
• Next steps for CC TWG
• Public Input and Announcements
Welcome and Introductions

• Alaska Climate Change Mitigation Advisory Group members
• Cross-Cutting (CC) Issues Technical Working Group (TWG) members
• Center for Climate Strategies TWG Facilitation Team
• Members of the Public

Purpose & Goals

• Purpose
  – Achieve Administrative Order #238
• Goals
  – Review and approve current and comprehensive inventory and forecast of greenhouse gas (GHG) emissions in Alaska from 1990 to 2020;
  – Develop and recommend a comprehensive set of specific policy recommendations and associated analyses to reduce GHG emissions and enhance energy and economic policy in Alaska by 2020 and beyond;
  – Develop and recommend a set of recommended statewide GHG reduction goals and targets for implementation of these actions; and
  – Issue recommendations in the form of a final report to the Climate Change Subcommittee convened by the Governor.
Part 1: Structure, Roles, and Processes

Overview of Alaska Climate Change Efforts Under Admin Order #238

- A Climate Change Sub-Cabinet (CCSC) was convened by Governor Palin to provide advice to the Office of the Governor
- The CCSC oversees and coordinates the process of responding to Administrative Order No. 238
- The CCSC established a Mitigation Advisory Group (MAG) and an Adaptation Advisory Group (AAG)
- The AGs make recommendations on policy options and activities for mitigation and adaptation to the CCSC
- The AGs provides guidance to and receive input from the Technical Working Groups (TWG)
MAG Members

- Scott Anaya, AK Building Science Network
- Bob Batch, BP
- Steve Colt, UAA
- Jeff Cook, Flint Hills Resources
- Brian Davies, Nature Conservancy
- Steve Denton, Usibelli Coal Mine
- Karen Ellis, FedEx
- Joe Everhart, Wells Fargo
- Rick Harris, Sealaska
- Jack Hébert, Cold Climate Research Center and Hébert Homes
- David Hite, Hite Consulting
- Kate Lamal, Golden Valley Electric
- Meera Kohler, Alaska Village Electric Coop
- Paul Klitzke, St. David’s Episcopal Church and Interfaith Light & Power
- Byron Mallott, FAI (former AK Perm Fund and First Alaskan Institute)
- Greg Peters, Alyeska Seafoods
- Chris Rose, Renewable Energy Alaska Project
- John Rubini, JL Properties
- Sean Skaling, Green Star
- Jamie Spell, 3rd Wing Elmendorf AFB
- Stan Stephens, Stan Stephens Charters
- Curt Stoner, Totem Ocean
- Kate Troll, Alaska Conservation Alliance
- Kathy Wasserman, Alaska Municipal League
- Randy Virgin, Municipality of Anchorage
- Dan White, UAF

Technical Work Groups for Mitigation Advisory Group

Governor’s Sub-Cabinet on Climate Change

- Adaptation Advisory Group
- Research Needs Work Group
- Governor Palin
- Immediate Action Work Group

Climate Change Mitigation Advisory Group

- Appointed Members
- Appointed Members
- Appointed Members
- Appointed Members
- Appointed Members

Oil & Gas Technical Work Group

- Interested Parties
- Technical Experts
- Public

Energy Supply & Demand Technical Work Group

- Interested Parties
- Technical Experts
- Public

Transportation & Land Use Technical Work Group

- Interested Parties
- Technical Experts
- Public

Forestry, Agriculture, & Waste Technical Work Group

- Interested Parties
- Technical Experts
- Public

Cross-Cutting Issues Technical Work Group

- Interested Parties
- Technical Experts
- Public
MAG and TWGs

- Mitigation Advisory Group (MAG)
  - Review existing and planned state actions
  - Identify 30-40 potential options for design and priorities for analysis
  - Recommend actions to achieve the Administrative Order goals
- Technical Working Groups (TWG)
  - Analysis, review and early ranking of options
  - Develop initial straw proposals for design
  - Input to and review of MAG recommendations and reports
  - Review state GHG inventory and forecast
- TWG process is fully integrated with the MAG
  - TWGs serve in an advisory role to MAG
  - MAG members serve on the Technical Working Groups

MAG TWG Focus Areas

- Oil and Gas
  - Exploration, production and refining / processing
- Energy Supply and Demand
  - Clean and renewable energy, combined heat & power, etc.
  - Energy efficiency and conservation, industrial processes, water supply and treatment, etc.
- Transportation & Land Use
  - Vehicle efficiency, alternative fuels and demand-reduction programs
- Forestry, Agriculture, and Waste Management
  - Forest management, forest restoration, land protection, bioenergy, wood products, waste reduction, recycling
- Cross-Cutting Issues
  - Government lead by example, public outreach, education
TWG Roles

• Assist CCMAG
  – Review and assist with the GHG inventory and forecast
  – 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 MAG reports

Timing

• MAG meetings – every two months approximately
  – Next meeting is July 15, 2008 (Fairbanks)
  – September 22, 2008 (details coming)
• TWG calls
  – Regularly scheduled
  – Two 2 hour calls between MAG meetings
• Final Product of MAG
  – Report to Climate Change Sub-Cabinet in April 2009
Final Report from MAG to CCSC

- Executive Summary
- Background, Purpose & Goals
- Emissions Inventory & Forecast
- Impacts Analysis
- Climate Change Mitigation Recommendations
- Appendices

Stepwise Planning Process For Mitigation

1. Develop inventory and forecast of emissions
2. Identify a full range of possible mitigation 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
Key Components of the Process

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

Ground Rules

- Supportive of the process
- Attendance at meetings
- Equal footing
- Stay current with information
- No backsliding
- Do not represent the MAG or TWGs
- Make objective contributions
Part 2: Review Alaska Draft Greenhouse Gas Emissions Inventory and Forecast

Inventory Approach

- Standard US EPA and UN methodologies, guidelines, and tools
- Emphasis on transparency, consistency, and significance
- Preference for Alaska data, where available
- Consumption and production-basis emissions from electricity generation
  - Very simplified approach used for initial analysis
Projection Approach

- Reference case assumes no major changes from business-as-usual (BAU)
  - Includes approved policies and actions to the extent possible
- Growth assumptions from existing sources
  - State population and employment forecasts
  - US Census and Bureau of Labor & Statistics
  - US Energy Information Administration

Coverage

- Six gases per USEPA and UNFCCC guidelines
  - Carbon Dioxide (CO2), Methane (CH4), Nitrous Oxide (N2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulfur Hexafluoride (SF6)
- All major emitting sectors
  - Electricity Supply & Demand (Consumption Based)
  - Residential, Commercial, Industrial (RCI) Fuel Use
  - Industrial Non-Fuel Use Processes
  - Transportation (onroad and nonroad)
  - Natural gas pipeline transmission & distribution
  - Agriculture, Forestry, and Waste
- Emissions expressed as CO2 equivalent
  - 100-year global warming potentials
    - CO2 = 1; CH4 = 21; N2O = 310; HFC-23 = 11,700; SF6 = 23,900
Key Points

• Preliminary draft for MAG and TWG review and revision, as needed
• Helpful for diagnosis of GHG emissions, but not a baseline for modeling or compliance for individual options
• Consumption and Production methods
• Net and Gross methods

Alaska & US Gross Emissions by Sector, 2000
Per Capita and GSP/GDP Gross GHG Emissions, 1990-2005

Alaska Gross GHG Emissions By Sector, 1990-2020
Part 3:
Catalog of State Actions and Potential Cross-Cutting GHG Mitigation Options
Catalog of Mitigation Actions

- Center for Climate Strategies has Complied 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 Alaska actions
- MAG and TWG’s will add new potential actions
- Starting place for identification of MAG priorities

Mitigation Decision Criteria

- GHG Reduction Potential (MMtCO2e)
- Cost or Cost Saved Per Ton GHG Removed
- Co-benefits
- Feasibility Issues
# Screening of Potential Actions - Agriculture Sample

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

Policy Description:

**Policy Description**
- Policy Design:
  - Limits:
  - Timing:
  - Coverage of Parties:
- Implementation Methods:
- Related Policies/Programs in Place:
- Estimated GHG Savings and Costs per CO₂:
- Data Sources:
- Quantification Methods:
- Key Assumptions:
- Key Uncertainties:
- Additional Benefits and Costs:
- Feasibility Issues:
- Status of Group Approval:
- Level of Group Support:
- Barriers to Consensus:
Cross-Cutting Issues TWG Catalog of Actions

• Please see separate Catalog handout.

Questions?
Public Input

Cross-Cutting TWG Next Steps

• Between now and next call
  – Review Alaska GHG inventory and forecast, and suggest revisions, as needed
  – Identify “priorities for analysis” from Catalog of Actions
    • Add existing and new options as needed
    • Rank and screen options
• Suggest initial “priorities for analysis” to the MAG on July 15th
Next CC TWG Call

Proposed date/time for Call #2:
Tuesday, July 1, 11:00 a.m.–1:00 p.m.