



# Michigan Climate Action Council

Meeting #2, February 14, 2008

Michigan Department of  
Environmental Quality  
The Center for Climate Strategies

## Welcome and Introductions

- Michigan Climate Action Council
- Michigan Department of Environmental Quality
- Michigan State Agencies and Universities
- Members of the Public
- Center for Climate Strategies

# Agenda

1. Introductions and Agenda Review
2. Approval of MCAC Meeting #1 Summary
3. Update on MCAC Process
4. Review and Discussion of draft Michigan GHG Emissions Inventory & Forecast
5. Review of Potential Additions to the Catalog of State Actions for Michigan
6. Review Options for Developing Preliminary GHG Emission Reduction Goals in Michigan
7. Discuss Potential Elements of the MCAC Interim Report to the Governor
8. Next Steps for MCAC and Technical Workgroups (TWGs)
9. Agenda, Time, and Date for Next Meeting
10. Public Input and Announcements

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# MCAC Process Update

- Stepwise Planning Process
- Refine Inventory and Forecast
- Build a broad Catalog of Potential State Actions
- Prioritize Actions for Detailed Analysis
- Preliminary GHG Reduction Goals
- Interim Report to Governor

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## Stepwise Planning Process

1. Develop inventory and forecast of emissions
2. Identify a full range of possible 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

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## Balloting Process Summary

- a) Balloting by e-mail will occur after Call #3.
- b) CCS will document the initial list of priority options based on ranked voting outcomes.
- c) On call #4, SC will review and finalize priority options to be recommended to ICCAC.
- d) Final priority options may include bundled options that combine several individual options from the catalog.

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## Voting on Priorities for Analysis

- Each SC member to receive a ballot via e-mail
- Each member may cast 10 votes, with no more than one vote per option
- Return ballot to CCS
- CCS will compile results and distribute to the SC for review and discussion on call #4

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## Preliminary Michigan GHG Emissions Inventory and Forecast

- TWGs are reviewing and will be providing recommended revisions at next MCAC meeting for the following sectors:
  - Electricity generation
  - Transportation
  - Fossil fuel industries

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## Catalog of States Actions

- Refer to Handouts of Catalogs of Potential State Actions
  - Residential, Commercial, and Industrial (RCI)
  - Energy Supply (ES)
  - Transportation and Land Use (TLU)
  - Agriculture, Forestry, and Waste Management (AFW)
  - Cross-Cutting Issues (CCI)
- MCAC to add new potential actions

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## Agriculture, Forestry and Waste TWG

- AFW-1 AGRICULTURE – PRODUCTION OF ENERGY AND MATERIALS
- AFW-2 AGRICULTURE – LIVESTOCK
- AFW-3 AGRICULTURE – CROP PRODUCTION
- AFW-4 AGRICULTURE – LAND USE CHANGE
- AFW-5 AGRICULTURE – FARMING PRACTICES
- AFW-6 FORESTRY – PRODUCTION OF ENERGY AND MATERIALS
- AFW-7 FORESTRY – BIOMASS PROTECTION AND MANAGEMENT
- AFW-8 FORESTRY – WOOD PRODUCTS AND WASTE
- AFW-9 WASTE MANAGEMENT – WASTE MANAGEMENT STRATEGIES
- AFW-10 WASTE MANAGEMENT – LANDFILL GAS STRATEGIES
- AFW-11 WASTE MANAGEMENT – WASTEWATER ACTIVITIES

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## **Energy Supply TWG**

- ES-1 EMISSIONS POLICIES AND OVERARCHING ITEMS
- ES-2 RENEWABLE ENERGY AND ENERGY EFFICIENCY
- ES-3 FOSSIL FUEL AND NUCLEAR ELECTRICITY
- ES-4 FUEL PRODUCTION, PROCESSING AND DELIVERY
- ES-5 CARBON CAPTURE AND STORAGE OR REUSE
- ES-6 OTHER ENERGY SUPPLY OPTIONS

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## **Residential, Commercial & Industrial TWG**

- RCI-1 ENERGY EFFICIENCY PROGRAMS, FUNDS, AND GOALS
- RCI-2 BUILDINGS
- RCI-3 APPLIANCE STANDARDS
- RCI-4 EDUCATION AND OUTREACH
- RCI-5 PRICING AND PURCHASING
- RCI-6 CUSTOMER-SITED DISTRIBUTED ENERGY AND COMBINED HEAT AND POWER
- RCI-7 NON-ENERGY EMISSIONS (HFCs, PFCs, SF6, CO2 PROCESS EMISSIONS)
- RCI-8 GHG EMISSIONS – SPECIFIC GOALS AND POLICIES
- RCI-9 OTHER

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## **Transportation and Land Use TWG**

- TLU-1 PASSENGER VEHICLE GHG EMISSION RATES
- TLU-1.1 VEHICLE TECHNOLOGY
- TLU-1.2 VEHICLE OPERATION
- TLU-1.3 INCENTIVES & DISINCENTIVES
- TLU-1.4 FUEL MEASURES
- TLU-2 TRAVEL ACTIVITY PATTERNS
- TLU-2.1 LAND USE AND LOCATION EFFICIENCY
- TLU-2.2 INCREASING LOW-GHG TRAVEL OPTIONS
- TLU-2.3 INCENTIVES & DISINCENTIVES
- TLU-3 FREIGHT
- TLU-3.1 VEHICLE TECHNOLOGY
- TLU-3.2 VEHICLE OPERATION
- TLU-3.3 INCREASING LOW-GHG TRAVEL OPTIONS
- TLU-3.4 INCENTIVES & DISINCENTIVES
- TLU-4 INTERCITY TRAVEL: AVIATION, HIGH SPEED RAIL, BUS
- TLU-5 OFF-ROAD VEHICLES (construction equipment, out-board motors, atvs, etc)

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## **Cross Cutting Issues TWG**

- CC-1 Inventories and Forecasting
- CC-2 GHG Reporting
- CC-3 GHG Registry
- CC-4 Statewide GHG Reduction Goals and Targets
- CC-5 State and Local Government GHG Emissions (Lead-By-Example)
- CC-6 Comprehensive Local Government Climate Action Plans (Counties, Cities, Etc.)
- CC-7 Public Education and Outreach—See Appendix A For Details for Each Audience Category
- CC-8 Tax and Cap Policies
- CC-9 Seek Funding For Implementation Of Climate Action Panel Recommendations
- CC-10 Adaptation And Vulnerability
- CC-11 Participate in Regional and Multi-state GHG Reduction Efforts
- CC-12 Enhance and Encourage Economic Growth and Job Creation Opportunities Through Climate Change Mitigation

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## Cross Cutting Issues continued

- CC-13 Encourage the Creation of a Business-Oriented Organization To Share Information and Strategies, Recognize Successes, and Support Aggressive GHG Reduction Goals
- CC-14 Dedicate Greater Public Investment to Climate Data and Analysis
- CC-15 Facilitate the Development of an Effective Carbon Credit System for Michigan
- CC-16 Create a Market Advisory Group
- CC-17 Enhance and Encourage Community Development Through Climate Change Mitigation; Address Environmental Injustice

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## Lunch Break



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## Preliminary GHG Reduction Goals for Michigan

- Options for Development
- Other States Goals

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## Preliminary GHG Reduction Goal Development Options

- Elements
  - Baseline Year Selection (1990, 2000, other)
  - Short-, mid- and long-term target years
  - % GHG reductions for each target year
- Approaches
  - Aspirational goals
  - Consumption- vs. production-based goals
  - Scientific-based goals
  - Regulatory goals

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State, Province, or Region	1990-2020 GHG Forecast	State Goals	Climate Plan Coverage
Arizona	144%	<ul style="list-style-type: none"> <li>• 2000 levels by 2020; 50% below by 2040</li> <li>• 15% below 2005 levels by 2020 (WCI)</li> </ul>	106%
California	40%	<ul style="list-style-type: none"> <li>• E.O.: 2000 level by 2010; 1990 by 2020; 80% below 1990 by 2050</li> <li>• AB-32: 1990 levels by 2020</li> <li>• 15% below 2005 levels by 2020 (WCI)</li> </ul>	100%
Colorado	71%	<ul style="list-style-type: none"> <li>• 20% below 2005 level by 2020; 80% below by 2050</li> </ul>	75%
Connecticut	32%	<ul style="list-style-type: none"> <li>• 1990 level by 2010; 10% below by 2020; 75% below by 2050</li> </ul>	100%
Florida	?	<ul style="list-style-type: none"> <li>• 2000 level by 2017; 1990 level by 2025; 80% below 1990 by 2050</li> </ul>	?
Massachusetts	?	<ul style="list-style-type: none"> <li>• 1990 level by 2010; 10% below by 2020; 75% below by 2050</li> </ul>	?
Maine	34%	<ul style="list-style-type: none"> <li>• 1990 level by 2010; 10% below by 2020; 75% below by 2050</li> </ul>	100%
Maryland	52%	<ul style="list-style-type: none"> <li>• 10% below 2006 levels by 2012; 15% below 2006 levels by 2015; 25-50% below 2006 levels by 2020; 90% below 2006 levels by 2050.</li> </ul>	TBD
Minnesota	48%	<ul style="list-style-type: none"> <li>• Next Generation Energy Act: 15% below 2005 levels by 2015; 30% by 2025; 80% by 2050</li> </ul>	TBD
Montana	30%	<ul style="list-style-type: none"> <li>• 1990 level by 2020; 80% below by 2050 (consumption and production)</li> </ul>	89%-105%
North Carolina	113%	?	TBD
NEG/ECP	?	<ul style="list-style-type: none"> <li>• 1990 level by 2010; 10% below by 2020; 75% below by 2050</li> </ul>	TBD

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State, Province, or Region	1990-2020 GHG Forecast	State Goals	Climate Plan Coverage
New Jersey	28%	<ul style="list-style-type: none"> <li>• E.O. 54: 1990 level by 2020; 80% below 2006 levels by 2050</li> </ul>	TBD
New Mexico	65%	<ul style="list-style-type: none"> <li>• 2000 level by 2012; 10% below by 2020; 75% below by 2050</li> <li>• 15% below 2005 levels by 2020 (WCI)</li> </ul>	133%
New York	24%	<ul style="list-style-type: none"> <li>• 5% below 1990 by 2010</li> </ul>	?
Ontario	?	<ul style="list-style-type: none"> <li>• 6% below 1990 by 2014</li> </ul>	n/a
Oregon	61%	<ul style="list-style-type: none"> <li>• 10% below 1990 by 2020; 75% below 1990 by 2050</li> <li>• 15% below 2005 levels by 2020 (WCI)</li> </ul>	85%
Puget Sound	37%	<ul style="list-style-type: none"> <li>• 1990 level by 2010; 10% below by 2020; 75% below by 2100</li> </ul>	100%
Rhode Island	35%	<ul style="list-style-type: none"> <li>• 1990 level by 2010; 10% below by 2020; 75% below by 2050</li> </ul>	100%
Vermont	26-59%	<ul style="list-style-type: none"> <li>• 25% below 1990 levels by 2012; 50% below 1990 by 2028; 75% below by 2050</li> </ul>	TBD
Utah	95%	<ul style="list-style-type: none"> <li>• 15% below 2005 levels by 2020 (WCI)</li> </ul>	TBD
Washington	40%	<ul style="list-style-type: none"> <li>• E.O.: 1990 levels by 2020; 25% below 1990 by 2035; 50% below 1990 by 2050</li> <li>• 15% below 2005 levels by 2020 (WCI)</li> </ul>	TBD
WCI	54%	<ul style="list-style-type: none"> <li>• 15% below 2005 levels by 2020 (AZ, NM, CA, OR, UT, WA, BC, MB)</li> </ul>	TBD
British Columbia	69%	<ul style="list-style-type: none"> <li>• 15% below 2005 levels by 2020 (WCI)</li> </ul>	TBD
Manitoba	TBD	<ul style="list-style-type: none"> <li>• 15% below 2005 levels by 2020 (WCI)</li> </ul>	TBD

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## Interim Report to Governor

- Due April 30, 2008
- MCAC Approval at Meeting #3- April 25, 2008
- Potential Elements:
  - Progress Report on MCAC Process
  - Preliminary Recommended Goals
  - Any Fast Track Items- e.g. legislation?
  - Other

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## Next Steps for MCAC and TWGs

- 2 TWG meetings/calls in March–April
- Identify Initial Priorities for Analysis from the Catalogs
- Develop GHG Inventory and Reference Cases for MI
- Develop preliminary GHG Reduction goals for MI
- Develop draft Interim Report to the Governor

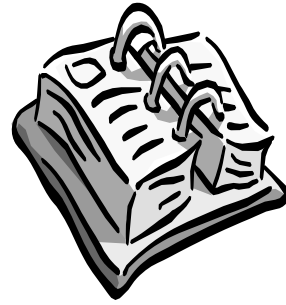
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## Next MCAC Meeting

- **Agenda:**
  - Identify and approve initial priorities for analysis
  - Review TWG suggested updates to the Michigan emissions inventory and forecast
  - Prepare for quantification of options
  - Recommend preliminary GHG Reduction Goals for Michigan
  - Approve Interim Report
- **Friday, April 25, 2008**



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## Schedule

<b>Date</b>	<b>Action</b>
December 12, 2007	1 <sup>st</sup> MCAC meeting
February 14, 2008	2 <sup>nd</sup> MCAC meeting
April 25, 2008	3 <sup>rd</sup> MCAC meeting and Interim Report
June 2008	4 <sup>th</sup> MCAC meeting
September 2008	5 <sup>th</sup> MCAC meeting
November 2008	6 <sup>th</sup> MCAC meeting
December 19, 2008	MCAC Final Report due
Between MCAC Meetings	TWG conference calls and meetings

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# Public Input, Announcements

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