



Michigan Climate Action Council  
Department of Environmental Quality

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# Michigan Climate Action Council (MCAC)

Transportation and Land Use Technical  
Work Group (TWG) Meeting #7  
June 4, 2008

Michigan Department of Environmental Quality  
The Center for Climate Strategies

# Agenda

1. Introductions
2. Approval of Summary of Prior Call/ Meeting
3. Discuss and develop Straw Proposals – Policy Description and Policy Design /Goal
4. Discussion of MI GHG Inventory and Forecast
5. Review of Next Steps
6. Agenda, Date and Time for Next Meetings
7. Public Comments
8. Announcements

# Approval of Prior Call Summary

# 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

# Preliminary MCAC Goals

<b><i>YEAR</i></b>	<b><i>% Reduction from 2002 Levels</i></b>
2002	Baseline Year
2015	10-20%
2025	25-35%
2050	80%

# Policy Design Proposals

- MCAC identified about 55 draft potential options for further development
- Subcommittees screen, prioritize, and propose initial policy option design (“straw proposals”)
  - Timing
  - Goals
  - Coverage
- CCS quantifies and presents for review
- MCAC revisits list of potential priorities, as needed

# Policy Option Template

- Policy Description (Concept)
- Policy Design (Goals, Timing, Coverage)
- Implementation Methods
- Related Programs and Policies (BAU)
- Estimated GHG Savings and Costs Per MMTCO<sub>2e</sub>
  - Data Sources, Methods and Assumptions
  - Key Uncertainties
- Additional (non-GHG) Benefits and Costs, as Needed
- Feasibility Issues, if Needed
- Status Of Group Approval
- Level of Group Support
- Barriers to Consensus, if any

# Straw Proposal Status

- Refer to Draft Policy Options Template
- Straw Proposal Draft Policy Description and Design have been completed by the Sub-Groups
- Policy Options Descriptions and Designs must be completed and submit to MCAC for their consideration on June 27, 2008

# Timing

<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 27, 2008	4 <sup>th</sup> MCAC meeting
September 12, 2008	5 <sup>th</sup> MCAC meeting
November 21, 2008	6 <sup>th</sup> MCAC meeting
December 19, 2008	MCAC Final Report due
Between MCAC Meetings	TWG conference calls and meetings

# Michigan CAFE Analysis

- The Energy Independence and Security Act of 2007 increased the corporate average fuel economy (CAFE) standards.
- The new goal is to reach an average fuel economy of 35 mpg by 2020.
- Fuel economy data by model year was obtained from the 2008 Annual Energy Outlook and the National Highway Traffic Safety Administration proposed CAFE standards.

# Tested MPG figures

Model	New Passenger Cars		New Light Trucks		New Commercial Trucks	
	Year	Baseline	New CAFE	Baseline	New CAFE	Baseline
2009	30.1	30.1	23.0	23.0	15.3	15.6
2010	30.4	30.4	23.4	23.4	15.5	15.7
2011	30.8	31.2	23.9	25.0	15.9	16.2
2012	30.9	32.8	24.0	26.4	15.9	16.6
2013	31.0	34.0	24.1	27.8	16.0	17.1
2014	31.1	34.8	24.2	28.2	16.0	17.5
2015	31.3	35.7	24.4	28.6	16.1	18.1
2016	31.5	36.9	24.5	29.1	16.2	18.3
2017	31.7	38.1	24.7	29.7	16.3	18.7
2018	32.0	39.4	24.9	30.2	16.4	19.1
2019	32.3	40.7	25.1	30.8	16.5	19.3
2020	32.5	42.0	25.3	31.4	16.6	19.8
2021	32.8	42.0	25.4	31.4	16.7	19.8
2022	33.0	42.0	25.6	31.4	16.8	19.8
2023	33.4	42.0	25.8	31.4	16.9	19.8
2024	33.7	42.0	26.0	31.4	17.1	19.8
2025	34.0	42.0	26.3	31.4	17.2	19.8

- The average MPG figures were then adjusted for on-road performance, which typically reduced MPG between 18 and 23 percent.

- Vehicle registration data is then used to divide VMT estimates for each year across vehicle type.
- VMT by vehicle type is then adjusted according to average mileage driven by vehicle age.
- VMT by vehicle age and type is then multiplied by on-road fuel economy to get total gallons of fuel consumed.
- The percentage reduction in gallons of fuel used is then converted into the percentage of emissions reductions through CAFE.

# Results of CAFE Analysis

## Baseline Michigan Transportation Inventory

<b>Emission Totals (MMtCO<sub>2</sub>e)</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>
Onroad Gas and Diesel	42.60	48.48	52.62	53.50	57.15	60.26	63.94	68.08
<b>Total</b>	<b>49.72</b>	<b>55.85</b>	<b>59.39</b>	<b>58.17</b>	<b>61.71</b>	<b>65.03</b>	<b>68.91</b>	<b>73.25</b>

## Michigan Transportation Inventory with New CAFE

Onroad Gas and Diesel	42.60	48.48	52.62	53.50	56.97	56.58	57.21	60.25
<b>Total</b>	<b>49.72</b>	<b>55.85</b>	<b>59.39</b>	<b>58.17</b>	<b>61.53</b>	<b>61.35</b>	<b>62.18</b>	<b>65.41</b>

<b>Percentage Reductions in MMtCO<sub>2</sub>e</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>
Onroad Gas and Diesel	0.00%	0.00%	0.00%	0.00%	0.32%	6.11%	10.52%	11.50%
Total Transportation Inventory	0.00%	0.00%	0.00%	0.00%	0.30%	5.66%	9.77%	10.69%

Further information on the CAFE analysis can be found at:

June 4, 2008

[www.miclimatchange.us](http://www.miclimatchange.us)

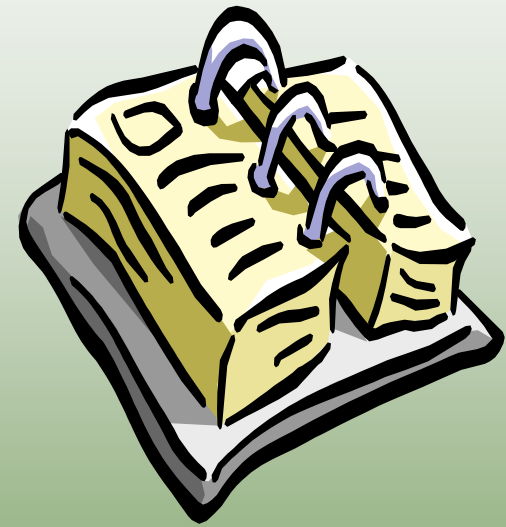
<http://www.miclimatchange.us/TLU.cfm>

# TWG Next Steps

- TWG refines Straw Proposal
- TWG forwards the agreed upon Description and Design information to MCAC
- MCAC reviews, modifies and approves basic straw proposals
- TWG refines straw proposals for quantification and cost/effectiveness analysis

# Next TWG Meeting

- Date and Time
  - Meeting # 8 is tentatively set for the second week in July.
- Agenda:
  - MCAC feedback on straw priorities
  - Make any necessary adjustments
  - Continue working on straw proposals – quantification



# Public Input, Announcements