



Maryland Climate Change Commission Technical Working Group

Transportation and Land Use

Meeting #12 - April 3, 2008, 2:00pm

At MDOT Headquarters in Hanover MD

Maryland Department of the Environment
Maryland Energy Administration
Center for Climate Strategies

Today's Agenda

- Call to order and roll call
- Review and approve prior meeting summary
- Review recommendations from March 19 MWG meeting
- Review progress on straw proposals
- Approve straw proposal quantification to date
- Address next steps for straw proposals
- Confirm agenda, time and date for next meeting & subsequent TWG meeting
- Public input and announcements

Stepwise Planning Process

1. Develop inventory and forecast of emissions - Ongoing
2. Identify a full range of possible actions - **Sept. 7-28**
3. Identify initial priorities for analysis - **Oct 26**
4. Develop straw proposals - **November**
5. Quantify GHG reductions and costs/savings - **Dec/Jan**
6. Evaluate externalities, feasibility issues - **Dec/Jan**
7. Develop alternatives to address barriers - **January**
8. Aggregate results - **February**
9. Iterate to final agreements - **Feb/March**
10. Finalize and report recommendations - **March**

MWG TLU Meeting Summary 3/19

- **TLU Area 1**
- MDOT provided a summary of their recent actions for consideration in quantification.
- CCS will provide a high/low set of options for consideration for Area 1
- **TLU-1**
- There was some concern expressed that the \$2 per gallon figure was too high. A variety of implementation mechanisms were discussed, though no decisions were finalized. Ultimately the Commission has to make the call on how this policy option will be implemented.
- **TLU-3**
- Decouple this from funding and keep it separate from TLU 1. Questions were raised about the \$917 per ton cost savings. The MWG suggested saying that the Federal government has difficulty in characterizing transit benefits.
- **TLU-5**
- ‘High speed rail’, may be too specific – only trains above 125 mph

| Option No. | Policy Option | GHG Reductions (MMtCO ₂ e) | | | Net Present Value 2008-2020 (Million \$) | Cost-Effectiveness (\$/tCO ₂ e) | Level of Support |
|---|--|--|-------------|-----------------|--|---|------------------|
| | | 2012 | 2020 | Total 2008-2020 | | | |
| | | <i>TLU Area 1: Reduce emissions 20% from 2020 baseline</i> | | | | | |
| | | 2.9 | 7.6 | 53.1 | | | |
| TLU-1 | Carbon Fuel Tax Fund (\$0.15 > \$2.00/gal) | 0.8 | 2.5 | 16.4 | NA | | Pending |
| TLU-2 | Land Use and Location Efficiency | 1.1 | 4.6 | 27.6 | Large net savings | | Pending |
| TLU-3 | Transit | 1.1 | 2.8 | 20.3 | TBD | -\$917 | Pending |
| TLU-5 | Intercity Travel: Aviation, High Speed Train, Bus | TBD | TBD | TBD | TBD | TBD | Pending |
| TLU-6 | Pay-as-you-Drive Insurance | 1 | 4.3 | 27.2 | Net savings | | Pending |
| TLU-7 | VMT Budgets | NA (implemented via TLU-2, et al.) | | | | | Pending |
| TLU-8 | Bike and Pedestrian Infrastructure | Included in TLU-3 | | | | | Pending |
| TLU-9 | Commuter Choice and other Pricing Measures | 1.9 | 2.2 | 21 | TBD | -\$1 to -\$643 | Pending |
| TLU-11 | Evaluate the GHG Emissions Impacts of Major Projects | NA | | | | | Pending |
| <i>TLU Area 2: Reduce carbon per unit of fuel</i> | | | | | | | |
| TLU-4 | Low Greenhouse Gas Fuel Standard | 0.7 | 1.9 | 12.8 | TBD | 30-90 | Pending |
| <i>TLU Area 3: Reduce carbon per mile and/or per hour</i> | | | | | | | |
| TLU-10 | Transportation Technologies | 1.21 | 3.2 | 22.44 | TBD | (200)-1500 | Pending |
| | Sector Total [before] Adjusting for Overlaps [with lower TLU-4] | 4.81 | 12.7 | 88.34 | TBD | TBD | |
| | Reductions From Recent Actions | TBD | TBD | TBD | TBD | TBD | |
| | Sector Total Plus Recent Actions | TBD | TBD | TBD | TBD | TBD | |

Business-As-Usual Emissions

| <i>Source</i> | <i>1990</i> | <i>2005</i> | <i>2020 (BAU)</i> |
|---|---------------------|---------------------|-----------------------|
| <i>On-road gasoline</i> | <i>17.91</i> | <i>23.94</i> | <i>28.78</i> |
| <i>On-road diesel</i> | <i>2.91</i> | <i>5.89</i> | <i>9.18</i> |
| <i>Jet fuel/aviation</i> | <i>1.49</i> | <i>1.31</i> | <i>1.42</i> |
| <i>Boats and ships-- ports/inshore</i> | <i>1.16</i> | <i>0.87</i> | <i>0.93</i> |
| <i>Boats and ships-- offshore</i> | <i>0.21</i> | <i>0.31</i> | <i>0.37</i> |
| <i>Rail</i> | <i>0.39</i> | <i>0.06</i> | <i>0.06</i> |
| <i>Other</i> | <i>0.14</i> | <i>0.14</i> | <i>0.19</i> |
| | | | |
| <i>Total</i> | <i>24.21</i> | <i>32.52</i> | <i>40.93</i> |
| <i>GHGs to reach target 25% reduction from 2006</i> | | | <i>24.39</i> |
| <i>Reduction needed from 2020 estimate</i> | | | <i>16.54</i> |

Business-As-Usual VMT

| | 1990 | 2005 | 2020 (BAU) |
|----------------------------------|---------------|---------------|-----------------------|
| Heavy Duty Diesel Vehicle | 2,257 | 3,795 | 5,694 |
| Heavy Duty Gas Vehicle | 554 | 560 | 744 |
| Light Duty Diesel Truck | 303 | 574 | 1,489 |
| Light Duty Diesel Vehicle | 259 | 172 | 447 |
| Light Duty Gas Truck | 10,536 | 19,079 | 23,836 |
| Light Duty Gas Vehicle | 26,464 | 32,351 | 40,418 |
| Motorcycle | 164 | 194 | 242 |
| Total | 40,536 | 56,725 | 72,870 |

Maryland Transportation Sector Emissions and MD Goals

Emission Totals (MMtCO₂e)

| | 2006 | 2020 |
|-----------------|-------------|-------------|
| Onroad Gasoline | 23.94 | 28.78 |
| Onroad Diesel | 5.89 | 9.18 |
| Total | 32.52 | 40.91 |

Maryland Goals

2015

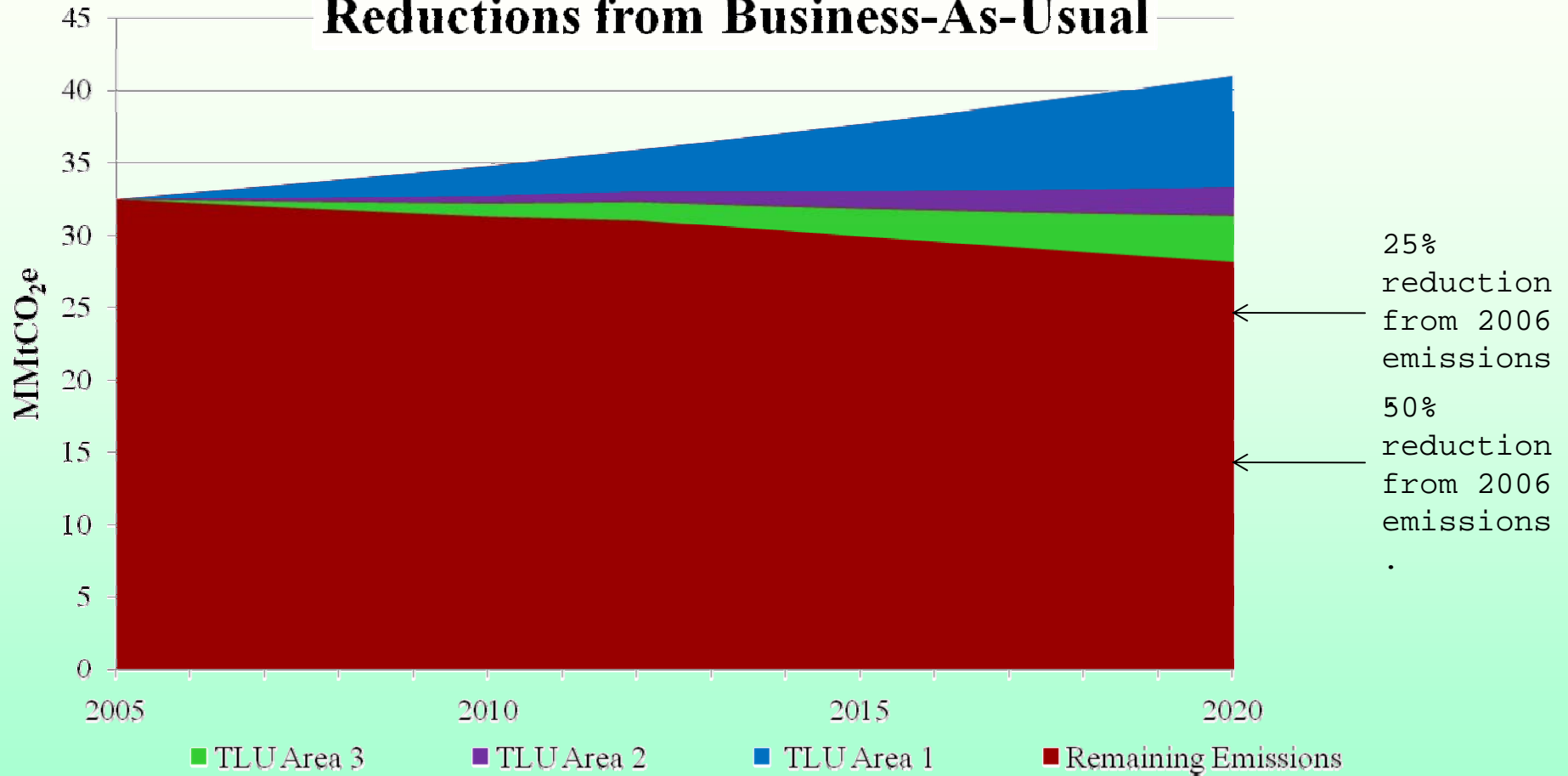
- 10% below 2006 levels by 2012
- 15% below 2006 levels by 2015

2020

- 25-50% below 2006

Reductions of 25-50% from 2006 estimates = 16.52 to 24.65 MMtCO₂e
reduction from BAU in 2020.

Reductions from Business-As-Usual



TWG/MWG Next Steps

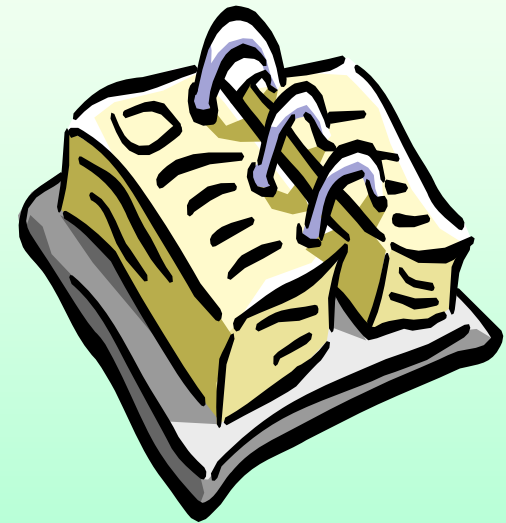
- CCS will revise the straw proposals.
- Present revised quantifications at April 22nd MWG meeting.
- TWG will incorporate MWG's recommendations at next meeting.

Key Dates

| <u>Date</u> | <u>Meeting</u> |
|-----------------------|--|
| April 20, 2008 | Final Report |
| April 22, 2008 | Next MD MWG Meeting |
| Between MWG Meetings | Technical Working Group (TWG) Calls and/or Meetings |

Next TLU TWG Meetings

- Date and Time
 - Late April or Early May, 2008
- Agenda
 - Further Develop Straw Proposals
 - Finalize Policy Option Descriptions



Public Input, Announcements