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MEETING SUMMARY
MICHIGAN CLIMATE ACTION COUNCIL

Agriculture, Forestry, and Waste Technical Work Group (TWG)
(AFW TWG)

Call #9, August 21, 2008, 1:00 PM – 3:00 PM EDT

Attendance:

1. Technical Working Group members:
Jeff Andresen, Jim Byrum, Cara Boucher, Ken Dahlberg, Jordan Devries,
Dana Kirk, Donna LaCourt, Jody Pollok-Newsom, Steve Shine, Tom Stanton,
Carrie Vollmer-Sanders, Brian Warner
2. Center for Climate Strategies (CCS) staff:
Steve Roe, Rachel Anderson, Brad Strode, Jackson Schreiber, Joe Pryor
3. Michigan Department of Environmental Quality:
Terri Novak, Steve Kulesia
4. State Agency Participants: David Binckley – Biomass Office
5. Public Attendees: Chris Theriot.

Background documents:

(all posted at <http://www.miclimatechange.us/AFW.cfm>)

1. Meeting Notice and Agenda
2. Summary of Call #8
3. PowerPoint Presentation for Teleconference
4. Policy Options Document

Discussion items and key issues:

1. Steve Roe called the meeting to order, Rachel Anderson completed the roll call, and Steve reviewed the agenda and plans for the call.
2. CCS reviewed today's agenda, which will be to discuss the Policy Options, including quantification and other template elements such as feasibility issues and barriers to consensus in preparation for the September 12th MCAC meeting.

3. CCS reviewed the Call #8 minutes and provided an opportunity for TWG members to provide feedback. The call summary was accepted without additional changes.
4. TWG member had the opportunity to comment on AFW-7 Promotion of Farming Practices that Achieve GHG Benefits. Members commented that organic farming is a system whereas other items mentioned under this option are practices. When we talk about organic farming it is unclear what specific practices we are talking about. Member responded that USDA certified organic farming practices are the most detailed and monitored practices that exist in farming. Member commented that this option should refer to specific practices that accrue carbon in the soil, such as tillage practices that CCX recognizes. This option could contain a research and development component for studying specific practices to make sure they achieve net benefits. For organics the research is not there yet. The current research is from small microplots and hasn't been scaled up yet. Member indicated this is not the case as there has been organic research in different regions of the country and in Europe over long periods of time on typical size agricultural research plots. What really matters is carbon sequestration – not whether it is organic or not. A member commented that ammonium nitrate should be avoided, which breaks down into nitrous oxide. Another member commented that the use of ammonium nitrate in Michigan is extremely low. Member suggested promoting specific practices such as nutrient management, fertilizer practices, and harvesting methods and recommended identifying specific practices and quantifying their merit with regards to carbon sequestration/GHG benefits. A member suggested changing the language of the second policy description bullet from “reducing application rates” to “optimizing plant nutrient application based on soil tests.” CCS will re-work the policy description and design based on the TWG input received today.
5. For AFW-5 Promote Continuous Vegetative Cover, the TWG wants it to expand beyond CRP acres. Currently there are 270,000 acres in CRP. By 2025 “X” acres would come out. By 2025 take 90% of those and protect them in some kind of conservation program, CRP or otherwise. The TWG needs to determine what “X” is. The CCS quantification lead will look into it as well. A member commented that if that land is cultivated with no-till or conservation tillage it could also sequester carbon, noting that whatever happens to those acres next needs to continue or increase carbon sequestration benefits. In Michigan it is estimated that only 80-90,000 of acres currently in CRP would likely come into production during the policy period. So the first goal would be to maintain 90% of the 270,000 that are currently in CRP in some kind of conservation program and the third goal is to increase by 10% the acreage that is in some kind of higher sequestration. The wetlands goal would be brought forward as non-quantified. The goals focused on riparian filter strips, buffer strips, windbreaks, and mowing would be included under Implementation Mechanisms and can be used as specific ways to meet the goals.
6. CCS walked through the quantification of AFW-6 Forestry and Agricultural Land Protection. The quantification assumed that 50% of the land would be paved or

- covered in some way and that 50% of soil carbon would be lost due to that. The number of acres lost per year is estimated at 97,000 based on NRI data. It would be helpful to get easement & acquisition costs from the TWG. Member suggested checking with Phil Robertson, Dept of Crops and Soils who has placement at KBS. Jeff Andresen offered to locate his contact information.
7. For AFW-4 Expanded Use of Bio-based Materials, CCS suggested using a life cycle analysis of PLA vs PET for quantification of this option. To quantify reclaimed wood we need to know where would it have been going otherwise (landfill?) and what it will be used for (wood products?). A member noted that a recent survey indicated that 96% of wood residue surveyed was being used for something, much of it going to a fiberboard plant that is now closed. The Biomass Program has a study of wood residue. The SW Regional Conservation District has information on what is being done with the emerald ash borer wood. David Binckley at the Biomass Office & Tom Stanton will look into those data sources.
 8. The quantification for AFW-3 Methane Capture and Utilization from Manure and other Biological Waste was reviewed. A member mentioned that Dana Kirk has built some of these facilities and might be a good data source. Members noted that MI uses Internal combustion engines not turbines and suggested using 8 cents/kWh (5 cents too low). Members also recommended blending swine and dairy, and using an average of 10-12 cents/kWh and also recommend using location marginal price to determine the cost for what is being avoided in MI right now.
 9. For AFW-2 In-State Liquid Biofuels Production, the amount of MSW biomass available will be incorporated as a feedstock source. The goal may be higher than what could be produced with in-state biomass. Members asked to include key uncertainties about biomass supply and food versus fuel considerations. Members also recommended using the wood fiber costs that were decided on for AFW-2 and making sure that transportation costs of biomass are included in the analysis.
 10. For AFW-1 Expanded Use of Biomass Feedstocks for Electricity, Heat, or Steam Production, member suggested lowering the goal to 10% and including uncertainties about biomass supply in the key uncertainties section. Members also suggested that 25% would be combined heat and power and 25% would be using waste heat and steam. CCS asked for information on what amount of heating oil/gas would be displaced as a consequence of using waste heat and steam. A member noted that there is only a small amount of poultry litter in the state and that it is all being sold for fertilizer (the demand for it is so great that it sells 1 ½ years in advance) so that it should be removed from the analysis and from Table 1. MSW biomass sources will be needed to reach goals for for AFW-1 and 2.
 11. The following is the list of CCS technical contacts. Please send quantification data and feedback to the appropriate technical contact as follows:
 - a. AFW-1 Expanded Use of Biomass Feedstocks for Electricity, Heat, or Steam Production – **Joe**
 - b. AFW-2 In-State Liquid Biofuels Production – **Rachel**

- c. AFW-3 Methane Capture and Utilization from Manure and Other Biological Waste – **Joe**
- d. AFW-4 Expanded Use of Bio-based Materials – **Rachel** (bio-plastics), **Jen** (embedded carbon content in long-lived wood products)
- e. AFW-5 Land Use Management that Promotes Permanent Cover – **Jackson and Joe** (ag lands and wetlands), **Jen** (forestry)
- f. AFW-6 Forestry and Agricultural Land Protection – **Jackson and Joe** (ag lands and wetlands), **Jen** (forestry)
- g. AFW-7 Promotion of Farming Practices that Achieve GHG Benefits – **Jackson**
- h. AFW-8 Forest Management for Carbon Sequestration and Biodiversity – **Jen**
- i. AFW-9 Source Reduction, Advanced Recycling, and Organics Management – **Brad**
- j. AFW-10 Landfill Methane Energy Programs – **Brad**

12. Email addresses for CCS technical contacts are as follows:

- a. brad.strode@pechan.com
- b. jackson.schreiber@pechan.com
- c. j.jenkins@carbodynamicsllc.com
- d. joe.pryor@pechan.com
- e. rachel.anderson@pechan.com

13. Public comments: none

Next steps and agreements:

- 1. The next TWG meeting will be held on Thursday, September 25st, from 1:00 - 3:00 pm EDT. Please RSVP to Terri Novak novaktl@michigan.gov 517.930.3170, if you will be attending in person t DEQ.
- 2. Dates for upcoming TWG conference calls:
 - a. September 25th, 1-3 PM
 - b. October 30th, 1-3 PM.