Maryland Commission on Climate Change Mitigation Working Group

June 27, 2016 from 12:30 – 2:30 with additional time available post-meeting Maryland Department of the Environment

In attendance: Tad Aburn, Mike Powell, Mike Tidwell, Luke Wisniewski, Jim Doyle, Megan Ulrich, Gwen Dubios, David Vanko, Tom Wessinger, Joshua Shodeinde, Elizabeth Entwisle, Jenn Gallicchio, Della Xu, Camilla Sarzedas, Devin Simmons, Abdul Mohammed, Hampden Macbeth, Gabe Pacyniak, David Costello, Stuart Clarke, James McGarry, Tommy Landers, Ian William, Todd Metcalfe, Ellen Bast, Eboni Wimbush, Diane Johnson, Belay Demoz, Elliot Campbell, Kathyrn Connolly, Tom Ballentine, Howard Feldman, Dan Engleberg, Andrew Williams, Jana Davis, Rebecca Rehr, Colby Ferguson, Colleen Turner, Mike Tidwell, Anne Lindner, Qubilah Huddleston, David Smedick, Eli Braun, Ben Hobbs, Laura Lapham, Tom Walz

On phone: Leo Knapp, Fraizer Baylock, Don Boesch, Alice (Dominion), Suzanne Buoyan

Welcome and Introductions

Meeting was called to order at 12:30. No amendments were made to the agenda.

Methane Information – <u>See attached Presentations</u>

- University of Maryland Center for Environmental Science Dr. Laura Lapham
- Environmental Defense Fund Andrew Williams
- American Petroleum Institute Howard Feldman
- Maryland Department of the Environment Brian Hug

University of Maryland Center for Environmental Science – Dr. Laura Lapham

- History of methane
- Methane is a major component in natural gas
- Leakage rates of 3.2% may be threshold for climate benefit of using natural gas instead of coal
- Papers report industry leakage rates of anywhere between .05 17%

Question: How was the 3.2% leakage rate threshold calculated and what is the uncertainty?

- Calculated using 100 year timescale
- Unsure about uncertainty

Question: Is methane on an upswing?

• Yes

Comment: Regional initiatives look at PA for upstream and landfills and AG in Maryland Comment: 3.2% intergovernmental panel on climate change – calculated over 20 years – may be moving it down to 2.7%

Environmental Defense Fund – Andrew Williams

- Methane leakage cost of \$30 billion in lost revenue
- Rational solutions available to stop leakage when companies know they exist
- Methane emissions are higher than conventional estimates suggest
- Regulations work for reducing methane and CO and WY have good templates
- Variety of benefit threshold percentages looking at 2.7% and diesel rates, etc. Emission factors out of date

American Petroleum Institute - Howard Feldman

- Natural gas and oil production in U.S. is increasing
- Background on oil and gas regulations
 - Expanded NSPS
 - ICR on existing sources
 - Methane Challenge Program
- Natural gas and petroleum methane emissions are 1/3 of U.S. total methane emissions

Question: What is the American Petroleum Institute's position on the 3.2% benefit threshold number?

• No position

Question: Has the American Petroleum Institute looked into the environmental health effects of fracking?

- Had requests for proposals of studies
- None were funded

MDE presentation – Brian Hug

- Inventory of GHG emissions in Maryland
 - Methane is 2% of total GHG emissions in Maryland
 - Inventory is currently being updated
- Methane emissions by key sectors in Maryland
- Reducing methane emissions
- EPA initiatives
- Pennsylvania's initiatives
- Colorado's initiatives
- Maryland's status

Question: Has MDE looked into acquiring earth networks data?

• Have to look over flights in western Maryland to get data

Question: Has MDE looked into the title 6 complaint against Brandywine power plant?

• Ben seriously meeting with AG's + PSC + public

Question: Does 2% GHG emissions number consider out of state leakage?

• No

Public Comments

Gwen Dubios

- Why use 100 year timescale to calculate methane carbon equivalency instead of 20 year?
- What are the actual leakage rates?
- Infrastructure study interesting

David Smedick

- 2014 inventory progress
 - Was posted last week on website
- Wants to encourage more discussion on RGGI Modeling
 - Another Maryland stakeholder meeting planned

Next Steps/Action Items/Adjourn

- Request for proposals 4 to 5 projects from MWG proposals
- MWG should look at, calculate leakage from out of state
- Goal for August to determine what the leakage percent from out of state is
- Future Discussion Items:
 - Thoughts and recommendations to MCCC on analytical issues
 - What does the MWG want to do about in state methane emissions
 - \circ $\;$ What does the MWG want to do about out of state methane emissions
 - Accounting for leakage in GGRAs
 - Equity considerations