

**CLIMATE CHANGE ADVISORY COMMITTEE
MEETING MINUTES**

April 23, 2019

10:00 a.m. – 3:00 p.m.

Conference Room 105

Rachel Carson State Office Building

MEMBERS/ALTERNATES PRESENT:

Chairperson Mark Hammond	Timothy Vickey (for Rep. Ryan Bizzarro)
Vice-Chairperson Steve Krug	Robert Graff
Luke Brubaker	Adam Beam (for Robert Graff)
Grant Gulibon (for Luke Brubaker)	Zakia Elliot
Jaret Gibbons	Lindsay Baxter
Sara Nicholas (for Cindy Dunn)	Joseph Sherrick (for Gladys Brown Dutrieuille)
Gary Merritt	Adam Walters (for Dennis Davin)
Joe Morinville (for Marc Mondor)	
Representative Steve McCarter	

MEMBERS ABSENT:

Alissa Burger	Terry Bossert
Zachery Smith	Rep. Marty Causer
Patrick Henderson	James Felmlee

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) STAFF:

Jessica Shirley, Kerry Campbell, Allen Landis, Lindsay Byron, Christopher Noble, David Althoff, Heidi Kunka

INVITED GUESTS: Douglas Zimmerman (PennDOT), Kenneth Hess (DGS)

MEMBERS OF THE PUBLIC:

Emily Best, Deb McCarter, Ngani Ndimbie, Emily Watts, Alisa Harris, Bob Barkanic, David Hess

MEETING:

The April 23, 2019, meeting of the Climate Change Advisory Committee (CCAC) was called to order at 10:05 a.m. by Chairperson Mark Hammond. With 14 of 20 seated members present at the start of the meeting, a quorum was established.

MINUTES:

The minutes of the February 26, 2019, CCAC meeting were presented to the committee to approve. Changes were suggested and accepted for addition into the minutes. A motion to pass the minutes was made by Representative McCarter and seconded by Robert Graff. The motion carried by a voice vote and passed unanimously.

MEETING SUMMARY: (This narrative provides a summary of the discussions that took place during the meeting. It is not a transcript of the proceedings.)

Update to PennDOT's Extreme Weather Vulnerability Assessment

Douglas Zimmerman, Bureau of Research and Planning, PennDOT presented the Department of Transportation's Extreme Weather Vulnerability Study. He stated that the focus on resiliency is due to the fact that since 2006 the Commonwealth has spent around \$140 million of Federal Aid System funds due to flood damage, with another \$100 million being paid in 2018. Resiliency is not just flooding, but could be tornados, earthquakes, landslides and other natural events, however the initial study is focusing on flooding. The initial study was completed in March 2017, updated in the Fall of 2017, and distributed to districts and other state agencies for planning purposes.

Douglas presented data regarding the forecasted impact that climate will have on flooding. The study utilized stream gauge, forecast impervious area and digital elevation data, as well as assessments of global climate model outputs. This data was then compared to historic data. Additional details focused on the 100-year flood plain map based on information from FEMA, this was then modified by PennDOT with rainfall projects to see how it would impact streams and other waterways. This study was conducted for Allegheny, Delaware and Lycoming counties.

Douglas also showcased a summary of the FHWA Pilot Study that involves one site location in each of Allegheny, Delaware and York Counties, various metropolitan planning organizations, and various PennDOT offices. The project goals include providing a template for conducting Hydrologic & Hydraulic (H&H) studies that include climate change impacts, a case study in evaluation of adaptation strategies and cost effectiveness, as well as evaluating planning level climate flooding forecasts from PennDOT's Extreme Weather Vulnerability Study. The next steps of the Pilot Study include the finalization of site locations, conducting detailed H&H studies incorporating climate projections, and field visits at the three locations.

Douglas went on to discuss how the Commonwealth is designing for resilience. PennDOT established an internal workgroup with a focus on design, construction and maintenance aspects. A traffic operations workgroup has also been established separately. The multiyear initiative will see some items implemented in six to twelve months whereas others will take longer to see fruition. Douglas also stated that some short-term items include the use of geotextiles to prevent loss of approach embankments and to encapsulate pipe backfill. Bridge and culvert design are also being reviewed to see what options are available.

DGS Fleet Considerations

Kenneth Hess, Deputy Secretary for Procurement, DGS presented the DGS Fleet Overview of FY17-18. Kenneth gave a rundown of the total vehicle count across the commonwealth and presented the breakdown of equipment vehicles, passenger and law enforcement, as well as the breakdown of the fuel type consumed. Kenneth also presented an overview on the impact that the recent Executive Order 2019-01 has on the Commonwealth fleet. The Executive Order sets out to replace 25 percent of the state passenger car fleet with battery electric vehicles (EV) and plug-in hybrid electric vehicle (PHEV) cars by 2025. Another aspect of the Executive Order is to research, recommend and develop vehicle fleet sustainability practices and metrics consistent with leading fleet accreditation programs.

Kenneth presented information that highlighted DGS's plans for adding Hybrid, PHEV and EV

vehicles into the fleet. Outlining the 25 percent commitment would see an estimated 500 vehicles being replaced by energy efficient vehicles by 2025. DGS plans to convert 100 vehicles per year for the next five years to hybrid, EV or PHEV. Currently, DGS has 65 alternative energy vehicles deployed within the Commonwealth fleet. There are currently 17 fleet charging stations in the Capitol complex.

Kenneth also gave some information regarding the telematics that are collected from the over six thousand vehicles that have had the collection mechanism installed. He proceeded to note in particular the gamification of fuel economy which has tapped into the competitive gaming of recent generations and is utilized to push the driver to increase their fuel efficiency. This is done by monitoring braking, acceleration and other variables. Another upside to telematics being installed in Commonwealth fleet vehicles is the decrease in speeding, less hard braking and aggressive driving. This helps reduce the maintenance costs of the vehicle by constantly monitoring the onboard systems.

Kenneth finished his presentation by listing off several other future fleet possibilities such as replacing older heavy diesel replacements, EV charging infrastructure, ridesharing across agencies, and bicycle or motorcycle alternatives.

There was discussion regarding implementation of the DC fast charging stations at publicly accessible locations that would allow citizens, employees and contractors to access charging while working or visiting Commonwealth locations. Questions arose regarding whether or not the Commonwealth would be paying for these stations and then charging a fee to see a return on the investment. Another discussion was on how successful the implementation of the telematics has been thus far.

Overview of TCI status

Jessica Shirley, DEP Policy Director, presented information on the Transportation and Climate Initiative (TCI). In 2010, Georgetown Climate Center started TCI, consisting of Northeast and Mid-Atlantic states. The goal was to network with the states and their respective agencies to develop a plan that addresses climate impacts from transportation. In December 2018, a commitment was announced that will lead to a strategy to potentially develop a cap and invest program. The effort will take place over the course of 12 months in 2019. A number of workgroups have been created to address the potential policy. Each workgroup has representatives from both DEP and PennDOT.

DEP Transportation Initiatives

David Althoff, Director, Energy Programs Office (EPO) gave a presentation on DEP's Transportation Initiatives. He described the efforts of the EPO in regard to the various programs that DEP offers, such as presenting outreach for alternative transportation. David also touched on the TCI and EPO's involvement in that program, as well as giving a brief overview of the Electric Vehicle Roadmap that was created to address the impacts, policy options and possible market interventions regarding EV adoption. David also presented information on the Drive Electric PA (DEPA) Coalition that works to promote electric vehicle adoption as well as collaborating to increase the acceptance and adoption of EV by state government agencies, local governments, businesses, industry and the general public in PA. He also spoke about the Driving PA Forward projects, Alternative Fuels Incentive Grant (AFIG) program, FAST (Fixing America's Surface Transportation) Act Corridor Infrastructure Grant, and the Alternative Fuel Vehicle (AFV) rebate program. He wrapped up his presentation by explaining some of the problems that the commonwealth faces with these programs, such as low consumer awareness, limited EV options, as well as some solutions that EPO is working towards.

Public Comment(s):

There were no public comments at this meeting.

Update on Climate Impacts Assessment:

Kerry Campbell, DEP Energy Office, Environmental Program Manager gave an update on the Climate Change Impacts Assessment that will be completed by Penn State. He stated there have been two calls with the project leads at Penn State. Rather than doing a repeat of the other climate impacts assessments, we are focusing on some specific areas. The Impacts Assessment will have three focus areas:

- Water Quality
- Agriculture
- Infrastructure

These focus areas will be broken down into the following three topics:

- Implications of climate change for planning, policies, and practices to achieve Pennsylvania's obligations under the 2011 Chesapeake Bay Total Maximum Daily Loads (TMDLs)
- Climate change impacts on Pennsylvania livestock production and livestock production impacts on water quality
- Resilience of Pennsylvania's critical infrastructure to extreme weather and climate events

Kerry explained that if there are temperature changes or rainfall patterns that make it difficult for livestock to continue being raised down south, then there may be a livestock migration to PA & therefore impacts to our water quality. Under the infrastructure piece, roads, bridges, and water/wastewater treatment plants will all be assessed to determine impacts on them by extreme weather events & what kinds of interventions can be done. Funds run out for the livestock & infrastructure topics on June 30, so that work must be done prior to that date. The water quality work has funding through September 30. This topic will focus on existing best management practices (BMPs), like riparian buffers, and how intense storms might short-circuit these buffers. Thus, the current TMDLs for the Bay may need to be changed, & BMPs amended as well. The three topics will be combined into one report that should be completed by the end of the year.

Luke Brubaker said he had a concern about a recent rulemaking that proposes to increase National Pollutant Discharge Elimination System (NPDES) permit fees for farmers. However, the DEP staff in attendance were not familiar with this rulemaking, so they could not comment.

Gary Merritt said he is concerned with DEP's progress on the State Water Plan. He pointed to how there will be increased issues with combined sewer overflows in Allegheny County & Philadelphia, and how Philadelphia is putting a lot of money into green infrastructure. He said DEP should make sure that current green infrastructure practices will be adequate to deal with climate impacts and that those investments in Philadelphia and Pittsburgh are justified, since they are being paid for by the public (i.e. stormwater impact fees). He recommended that Energy Programs and Policy Office staff sit down with other DEP programs regarding climate impacts. Kerry Campbell explained the various ongoing efforts to do just that, such as the work with the Chesapeake Bay Office.

Revised 2018 GHG Inventory Update:

Lindsay Byron gave an overview of the 2018 GHG inventory, which is now posted online. Some of the modules were updated with state-specific data. Those modules were wastewater, electricity consumption, and land use/forestry. In 2015, the electricity production sector had its lowest emissions, and the industrial sector had its highest emissions ever since DEP started doing the inventory. PA's total net emissions in 2015 were 257 MMTCO_{2e}, a 13.5% reduction in carbon emissions from 2005. As for gross emissions for the state, the industrial sector is responsible for 31%, electricity production constitutes 30%, and then transportation comprises 21%. Lindsay explained how there was a methodology change for motor gasoline in 2015, so that number looks abnormally high compared to prior years.

Rob Graff noted that the emissions reductions in the electricity production sector are primarily due to the shift from coal to natural gas and that this trend will not continue forever. Joe Sherrick added that this reduction is also due to a decrease in electricity consumption. Mark Hammond said he doesn't like the inconsistencies that result from EPA's methodology changes. He'd like DEP to use state-specific data instead of national averages and hopes this CAP is the last one that relies so heavily on the State Inventory Tool (SIT). Joe felt that the SIT is a fine model, but he feels EPA should have made the changes to the prior years for motor gasoline. Steve Krug said he would like demographics in the inventory as well.

New Business:

Mark Hammond asked about the status of the GHG cap and trade petition. Allen Landis stated it was accepted by the Environmental Quality Board (EQB) on April 16, 2019. DEP will prepare a report evaluating the petition and make a recommendation to the EQB. Allen said DEP will most likely need more than 60 days to prepare the report and will estimate how much additional time is needed at the next EQB meeting.

Rob asked what DEP's outreach plan will be when the CAP is released to the public. He recently told Chester County to use DEP's CAP as a framework for updating their plan. Kerry explained that DEP has set aside some State Energy Program funding in 2019-2020 for CAP outreach, specifically focused on local governments. Heidi Kunka, DEP, explained that she'll be giving a presentation on the CAP at PA Municipal League's Spring Sustainability Conference in June and will be asking attendees for feedback on how best to shape a technical assistance program on local climate action. Allen added that the CAP booklet will be completed soon.

Mark said the next meeting should include a discussion of the scope of the next CAP. Lindsay mentioned the committee had discussed previously that the meeting will have a buildings theme.

Adjournment:

A motion to adjourn was made by Robert Graff and seconded by Sara Nicholas. The motion carried, and the meeting was adjourned at 1:40p.m.