

**CLIMATE CHANGE ADVISORY COMMITTEE**  
**MEETING MINUTES**  
**October 27, 2020**  
**9 a.m. – 12 p.m.**  
**Via WebEx**

**MEMBERS/ALTERNATES PRESENT:**

Chairperson Steve Krug	Patrick Henderson
Vice-Chairperson Marc Mondor	Luke Brubaker
Greg Czarnecki (for Cindy Dunn)	Lindsay Baxter
Representative Stephen McCarter	Jaret Gibbons
Robert Graff	Kimberly Kipin-McDonald
Glendon King (for Representative Metcalfe)	Gary Merritt
Alissa Burger	Rachel Gleason (for Zachery Smith)
Joe Sherrick (for Gladys Brown Dutrieuille)	James Felmlee
Adam Walters (for Dennis Davin)	Terry Bossert
Tim Vickey (for Representative Ryan Bizzarro)	

**MEMBERS ABSENT:**

Zakia Elliott

**PA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) STAFF:**

Kerry Campbell, Lindsay Byron, Heidi Kunka, Dave Althoff, Allen Landis, Darek Jagiela, Sarah Pinter, Seth Pelepko, Brian Chalfant, Kimberly Yeakle

**INVITED GUESTS:**

Cassandra Bhat, Deb Harris, Tommy Hendrickson, William Prindle

**MEMBERS OF THE PUBLIC:**

Robert Barkanic, Travis Gery, John Bell, Sam Lehr, David Hess, Michael Arch, Nick Troutman, John Walliser, Josephine Martin, Laura Legere, David Gelman, Mark Huncik, Andrew Zwally, Arthur Stewart, Emily Rodden, Robert Routh, Sunny Roe

**MEETING:**

The October 27, 2020 meeting of the Climate Change Advisory Committee (CCAC) was called to order at 9:02 a.m. by Chairperson Steve Krug. With 11 of 20 seated members present at the start of the meeting, a quorum was established. Mr. Krug kicked off the meeting with a reminder that a few terms are expiring for CCAC members and that they should work on their renewals.

**MINUTES:**

The minutes of the August 25, 2020 CCAC meeting were presented to the committee for approval. A motion to approve the minutes was made by Mr. Henderson and seconded by Mr. Gibbons. Mr. Walters noted that the last sentence in the New Business section on page 4 should refer to a “council” instead of “committee” and should state “for the conventional oil & gas industry.” The motion to approve the minutes carried by a voice vote and passed.

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

**Summary of CCAC Feedback**

Ms. Byron discussed when DEP would be providing materials to the CCAC members and when their feedback would be due. She explained that the general pattern would be that members are provided materials two weeks in advance of the meeting and are given one week after to provide feedback.

As for the summary of CCAC feedback on the 2021 Climate Impacts Assessment (IA) and Climate Action Plan (CAP) materials from the August 2020 meeting, Ms. Byron shared the number of written and verbal feedback that was provided to DEP on each document. She noted that DEP is also engaging other bureaus and agencies in the development of the IA and CAP.

**ICF Presentation on 2021 Climate Impacts Assessment**

Ms. Bhat of ICF explained that DEP is taking a risk-based approach with the 2021 IA. She reviewed key terms at the onset of her presentation. She noted that the initial draft is complete, which includes the risk assessment methodology as Appendix B and an annotated outline. The risk assessment methodology was described as follows: step one is to set the context via consequence categories like human health, environmental justice (EJ), economy, etc.; step two is to identify the potential hazards; step three is to evaluate the likelihood and consequences; and step four is to assess the risks. Ms. Bhat stated that likelihood is evaluated via a 1-4 rating scale in line with the state hazard mitigation process, where 1 is unlikely, 2 is possible, 3 is likely, and 4 is highly likely. Each consequence category noted is evaluated by severity, extent, and duration of impacts. Ms. Bhat continued to explain the various report sections: section three will review key findings related to climate change in PA, as well as notable changes from the last IA; section four will be a summary of overall climate risks; and section five will summarize risks from each hazard: increased average temperature, heat waves, landslides, heavy precipitation and inland flooding, sea-level rise and cyclones. The timeline for the IA was described as follows: climate data will be analyzed by October 2020, additional analysis would be conducted through November, final draft completed by end of November, and final report completed in early 2021.

CCAC members had many questions. Mr. Mondor inquired how we accommodate for the rate of rainfall, since storms are more intense now. Ms. Bhat explained that she can look at different precipitation parameters in the models such as days with precipitation over one inch. Mr. Henderson asked about the percentages used on the likelihood scale. Ms. Bhat said they are from the state's hazard mitigation protocols and are used as thresholds and cumulative probabilities over the next 30 years. Mr. Graff asked how the National Climate Assessment/Intergovernmental Panel on Climate Change reports differ in their terminology from the state hazard mitigation plan, and Ms. Bhat said she couldn't recall but that it would be stated in the draft. Mr. Graff stated that he thinks it would be useful to have a crosswalk in the IA comparing common terminology in these various documents. Mr. Bossert asked if positive and negative impacts will be called out in the IA. Ms. Bhat stated they will indeed be noted. Mr. Walters asked what is meant by "critical threshold" as part of the likelihood rating scale. Ms. Bhat said it is the threshold whereby we'd see a certain level of impacts and that this term will be explained in the glossary. As a follow-up, Mr. Graff noted there are temperature thresholds for producing crops like apples or maple syrup and asked whether that is a good example of a threshold, to which Ms. Bhat said yes. Regarding the equity analysis, Mr. Graff also asked how the

IA will address the fact that some census block groups will be more at risk. Ms. Bhat explained that ICF and DEP will look at census tracts that are specifically labeled as EJ areas. Mr. Graff then explained how it is important that the report explain the dynamic nature of climate change and that just because a risk isn't appearing until later in the century doesn't mean we shouldn't start addressing it now. Ms. Bhat agreed. Mr. Graff's final question was how CCAC members can provide feedback, to which Ms. Byron explained that she'll be sharing a survey with them after the meeting in order to gather their comments. Mr. Merritt commented that our infrastructure standards need to be updated due to the intensity, volume, and timing of precipitation. In response, Mr. Graff noted that Departments of Transportation across the country take climate change into account with their designs now. Mr. Brubaker noted that the agriculture industry is more prepared for rain now via no-till and cover crops, but the increase in paved surfaces is a problem because it causes more flooding than there used to be.

### **ICF Presentation on 2021 Climate Action Plan**

Mr. Hendrickson explained the CAP development steps: the Business as Usual (BAU) scenario has been updated, potential GHG reduction strategies have been identified and prioritization of them has begun, and an annotated outline has been started. The BAU model utilizes 2005 as the baseline year. Activity data and emissions projections will be included through 2050 for eight sectors. Annual projections will begin in 2018 and continue through 2050. Data for the BAU will come from EPA's State Inventory Tool (SIT), State Energy Data System, the Energy Information Administration, and state-specific sources. Regarding GHG reduction strategies, Mr. Hendrickson explained that potential strategies were reviewed by the CCAC in August and September. DEP, along with ICF, used seven criteria to score and prioritize the strategies. Initial reduction strategies were then selected, which were shared with CCAC members. Those strategies that were new or expanded from the 2018 CAP were noted. Mr. Hendrickson shared strategies that would be modeled, as well as the enabling technologies list that would be included in the plan, such as hydrogen, battery storage, and carbon offsets.

CCAC members provided their feedback on the proposed strategies. Mr. Graff commented that electrification of delivery vehicles is missing (i.e. medium/heavy duty vehicles). He also noted the importance of considering national and international programs and policies in the CAP. Ms. Harris agreed, but she cautioned that it may not be possible to include in the modeling, since policies will be in a state of flux due to the presidential election. Mr. Merritt suggested that croplands, grasslands, and reforestation should be considered. Mr. Graff inquired whether electrification moves emission from one sector to another, to which Ms. Harris said that if the grid gets cleaner then that reduces overall emissions. In regard to oil and gas, Mr. Henderson asked if the data separates production versus distribution. He also inquired as to what the boundaries would be when accounting for the GHG reductions strategies. To the oil and gas question, Ms. Byron responded that the EPA's SIT does break out data by transmission, distribution, and number of wells. To the latter question, she said that DEP would only be considering emissions within Pennsylvania boundaries and nothing outside. Mr. Henderson also stated that he would like to see the trends of each GHG in the report and whether they are increasing or decreasing. Mr. Mondor asked what the best method is to account for the electrification of buildings, as he wants to ensure that this benefit can be adequately tracked. Ms. Harris assured him that it will be possible to breakout which portions of electricity generation are attributed to various sectors. Mr. Merritt made two suggestions: to address the water needs of nuclear energy and differentiate between the two types of combined heat

and power (CHP), one at the building scale and the other at the industrial level. Mr. Krug responded that 80% of CHP is industrial, to which Ms. Harris said that type will be the focus in the CAP. Ms. Baxter asked about the expansion of Act 129 and whether it would cover more than just electricity. Ms. Byron responded that we are proposing an Act 129-like program for natural gas in the CAP, but she noted how utilities already offer voluntary programs. Mr. Graff stated that “expanding Act 129” is narrow in focus and that there are many other legislative activities that can take place to address this matter. Per American Institute of Architects’ goals, Mr. Krug would like to see net zero education in the CAP. Regarding the enabling technologies list, he suggested that “P2G,” or power-to-gas, might be a bit limiting and that it should say “P2X” instead. Ms. Kipin-McDonald asked if life cycle assessment modeling that the manufacturing industry conducts regarding carbon capture utilization and sequestration (CCUS) would be considered in the CAP under the enabling technologies section, to which Ms. Harris said no. Mr. Graff asked about renewable natural gas (RNG) and how important it is as a strategy. Ms. Harris responded that ICF has a national data set they’ll use to assess RNG. Mr. Graff added that land use strategies are key for reducing vehicle miles travelled (VMT).

### **Public Comment(s)**

Ms. Rodden provided public comment as a representative of the Sunrise Movement, which is a youth-led campaign. She believes that the 2021 CAP will not be enough to address this crisis, as climate change is already happening here and now. She opined that the solutions proposed in the CAP do not match the scale of the problem. The key is to end fracking on state lands and focus on green jobs, according to Ms. Rodden. She concluded by stating how she is doing a lot of regional organizing with high school and college students right now, as they all feel this issue deserves urgent attention.

As Chair of the Crude Development Advisory Council, Mr. Stewart provided comments on orphan and abandoned wells in the Commonwealth. He explained he has experience plugging many orphan wells and that there are actually many more in existence than the eight thousand accounted for in the Commonwealth’s database. Mr. Stewart asserts that there are actually more than 200,000 orphan wells in PA. He said the orphan wells are in bad shape, and DEP should tackle the older wells first, as these wells become more difficult to properly decommission as they age and deteriorate.

### **CAP Timeline**

Ms. Harris gave a brief overview of the CAP timeline: the initial draft CAP and draft BAU analysis will be completed in October, GHG reduction methods will be developed in November, the GHG reduction modeling will begin in December, and the CAP will be finalized by mid-2021. Ms. Byron then explained that written feedback from the CCAC on the materials provided for this meeting will be gathered via a Google survey that she will send to committee members. She noted that the survey is preferred for feedback as opposed to email.

### **Abandoned and Orphan Wells in PA Presentation**

Mr. Pelepko provided an overview of abandoned and orphan wells in the Commonwealth, as well as several case studies of wells that have posed a hazard to public safety. He noted how DEP has plugged over 3,000 wells since 1985 and explained that surcharges for drilling permits have been used to pay for this plugging. However, he mentioned that supplemental funding will be essential to managing this problem into the future. Mr. Pelepko explained that wells which are determined to be in

an emergency state are addressed first via plugging or venting. He described well analysis as very high tech and like an art form. He also covered emerging environmental and safety issues, such as encroachment by developments, and explained how DEP is partnering with academia on addressing the abandoned and orphan well issue. He agreed with Mr. Stewart in that there is the potential for hundreds of thousands of wells with no associated responsible party (i.e. orphan wells).

A few CCAC members had questions for Mr. Pelepko. Mr. Graff asked what is being done to prevent current wells from becoming a problem, to which Mr. Pelepko responded that DEP requires bonding, a risk assessment of the wells, and forms various partnerships. Mr. Graff also inquired about what other states are doing in this regard. According to Mr. Pelepko, Ohio is reliant on their extraction tax to address the problem, West Virginia recently passed some legislation that doesn't necessarily help with the funding issue, and Texas has a very well-funded program for the most part. Mr. Mondor questioned if we can put meters on the wells drones to assess the emissions, to which Mr. Pelepko stated that drones can conduct aerial assessments.

### **Status of PA's Proposed Cap and Trade Regulation**

Mr. Landis provided an update on PA's participation in the Regional Greenhouse Gas Initiative (RGGI). He stated that the Environmental Quality Board (EQB) approved the cap and trade regulation on September 15<sup>th</sup>. The regulation will be open for public comment from November 7<sup>th</sup> – January 13<sup>th</sup>, which will include hearings. Then, DEP will make associated revisions and hear input from advisory committees. It will then be presented to the EQB for a final vote in summer 2021 and begin in January 2022.

Mr. Mondor asked about the effectiveness of Senate Bill 15, which sets up a cap and invest program only for PA. Mr. Landis noted that DEP's regulation does provide the option of doing a PA-only program, if the regional approach is not working. However, he said a PA-only approach would most likely be less economically efficient and reliable than a regional program, such as RGGI. Mr. Landis also noted there was a bill passed by the PA House and Senate to prevent DEP from creating this regulation, but it was vetoed by the Governor. Mr. Henderson asked if the public hearings will be in-person or virtual, to which Mr. Landis said they will most likely be virtual due to the pandemic.

### **New Business/Next Steps**

Ms. Byron asked if it was acceptable to move the next CCAC meeting from December 17 to December 22, so as to allow adequate time for DEP to review materials from ICF and send them to CCAC in time for their review. There were no objections. Ms. Byron raised the suggestion to invite Kris Carter to speak on CCUS at an upcoming CCAC meeting, to which there were no objections.

### **Adjournment**

A motion to adjourn was made by Mr. Graff and seconded by Mr. Mondor. The motion carried, and the meeting was adjourned at 12:03 PM.