

Meeting Minutes
Friday, May 31, 2024

Carbon Life-Cycle Analysis (CLCA) Phase II
House Bill (HB) 2026
Virginia Department of Forestry (DOF) Board Room

Advisory Panel (AP) Attendees: Terry Lasher (DOF); Rob Farrell (DOF); Ron Jenkins (VA Loggers); Kyle Shreve (VFA/Advantus Strategies); Corey Conners (VA Forestry); Scott Barrett (VATech); Judy Dunscomb (TNC); Liz Willoughby (Dominion Energy); Martha Moore (VAFB); David Carr (SELC); Mike Davis (NOVEC),

Attendees: Lisa Colosi Peterson (UVA); Abigail Van Eerden (UVA); Nafisa Ahmed (UVA); Jessie Soloman (SELC); Ember Jenison (DOF); Jennifer Leach (DOF); Rachel Henley (VAFB)

Virtual Advisory Panel Attendees: Mike Dowd (DEQ); Ed Cronin (DOE); Susan Seward (VFPA); Lesley Mosley (VFPA)

Virtual Attendees/Participants: Sabina Dhungana (USFS); Kayla Amartey (UVA); Abigail Thompson (Gentry Law); Greg Bilyeu (DOF); Rabia Reshmeen Banee (DOE); Karen Winans (VATech); Rachel Snead

The meeting convened at 9:00 AM and adjourned at 11:00 AM

Welcome and Introductions

Terry Lasher (Assistant State Forester, DOF) welcomed everyone to the first meeting of Carbon Life-Cycle Analysis (CLCA) Phase II of House Bill (HB) 2026. Everyone in attendance introduced themselves.

Purpose, Participation, Communication, Ground Rules, and Expectations

Lasher reviewed the plan and goals for the meeting and for Phase II of the CLCA. A completed, acceptable Final report of Phase II will need to be presented to the General Assembly by December 1, 2024. A timeline will be presented as the meetings go forward.

Purpose

Answer the questions put forth in HB2026 regarding the Virginia Clean Economy Act and biomass and biomass used in Virginia and complete CLCA Phase II of HB2026. Completion will be to provide a final report consisting of a Carbon Lifecycle Analysis and a written report answering critical questions outlined in the legislation. This report will be provided to the Secretary of Agriculture and Forestry for review. Once vetted by the Secretary, the report will be returned to the CLCA Phase II Advisory Panel to address any comments from the Secretary and the final report to be submitted to the General Assembly on behalf of the AP.

Participation

- There are two types of participants for these meetings: The Advisory Panel (AP): Virginia Loggers Association (VLA); Virginia Forestry Products Association (VFPA); Virginia Farm Bureau (VAFB); Dominion Energy; NOVEC; The Nature Conservancy (TNC); Southern Environmental Law Center (SELC); Virginia League of Conservation Voters (VLCV); Department of Energy (DOE); Virginia Department of Environmental Quality, Virginia Cooperative Extension (VCE). And Other Participants: Alternates to AP or other interested parties. Currently Sabina Dhungana, USFS; Abigail Thompson (Gentry Law); Greg Bilyeu (DOF); Rabia Reshmeen Banee (DOE); Karen Winans (VATech); Rachel Snead
- A virtual option will always be available for the meetings.
- An upcoming calendar will be established by the end of the meeting with suggested dates for future meetings to carry the AP and other participants to October. A date will be set for each month. However, all dates may not be needed.

Communication

Due to participants having trouble with the Teams site, it was decided that communication of meetings would be through email. All other documents and associated conversation pieces, summaries, meeting minutes, and anything needed for the group to have informed decisions on will be shared on the same SharePoint page that was used for the CLCA Phase I meetings.

After each meeting, there will be a “Drop Box” with the meeting date where participants can put information, questions or anything that needs to be shared with the group pertaining to the meeting. On these documents participants will put their name, organization name, and date. Prior to the next meeting, Lasher will create a summary document of everything in the prior meeting’s “Drop Box” to guide the discussion for the next meeting.

Ground Rules and Expectations

Lasher reminded everyone of the FOIA requirements. The meetings will be where conversations will be held, and SharePoint is where all the written information will be kept. The AP and participants need to make sure to be transparent with anything discussed. The meetings being held are public meetings and open to anyone who would like to attend. Conversations need to be during the meetings and side conversation are not taking place and going back to the contractor. DOF is the “gatekeeper” of information that will flow to the contractor and will decide what happens with information at the meetings and DOF will forward the information to the contractors at UVA. Lasher appreciates 100 percent respect from all participants with the protocols and if any participant has any questions regarding FOIA, it will be in the SharePoint files. FOIA information: "Meeting" or "meetings" means the meetings including work sessions, when sitting physically, or through electronic communication means pursuant to § 2.2-3708.2 or 2.2-3708.3, as a body or entity, or as an informal assemblage of (i) as many as three members or (ii) a quorum, if less than three, of the constituent membership, wherever held, with or without minutes being taken, whether or not votes are cast, of any public body.

Advisory Panel Mandates, Goals and Tasks

Convene an AP to examine the following factors to the use of forest-related materials, agricultural-related materials, and solid woody waste materials for biomass-fired electric generating units. Below are the five goals outlined in the legislation that the AP will address in the final report.

1. Determine policies in the southeastern United States and other states participating in the PJM regional transmission organization interchange as they relate to the use of biomass for electricity generation.
2. Potential benefits for the Commonwealth’s hardwood forest health as a result of using biomass resources for electricity generation.
3. Determine the number of forest-related materials, agricultural-related materials and solid woody waste materials that can be sustainably consumed annually without disrupting existing markets.
4. Consideration of technological advances in biomass energy generation.
 - a. A lifecycle carbon analysis, developed in coordination with DEQ and relevant stakeholders, that includes all carbon emissions, including supply chain emissions, forgone sequestration, and the emissions from burning biomass resources for electricity generation. What priority inputs to the CLCA are needed?
 - b. Open discussion

David Carr, SELC asked how this lifecycle analysis relates to the preliminary BMP’s (Best Management Practices) that were issued and what the plan is for making modifications to that after the results of this LCA. Rob Farrell (State Forester) responded that last year’s stakeholders group worked on the biomass BMP’s that incorporated last year’s LCA. While a full LCA could not be done, the BMP was developed as directed. In Phase II a complete CLCA is being completed and based on that work the BMP’s will be looked at again. The BMP’s are a living document, they may be revised with the new information collected from the CLCA. This year the AP will only be focusing on the five goals above.

Life Cycle Analysis Contractor - University of Virginia

Lasher introduced the contractor hired to conduct the LCA, Lisa Colosi Peterson, co-director of the UVA Life Cycle Assessment (LCA) Lab at UVA. Peterson is a professor in the Department of Civil and Environmental Engineering at the UVA Engineering School. Peterson gave a background about her team and the various LCA work they have done in the past for various entities to include the Department of Aviation, Virginia Department of Transportation, and Virginia Transportation Research Council. Peterson indicated they would be able to get a good start on the project this summer. Peterson had her team introduce themselves and what part of the project they will be leading and their background. Abigail Van Eerden is an undergraduate double majoring in prelaw and in UVA's Global Studies Sustainability Program. Van Eerden will be focusing on the policy and technology part of the LCA. Nafisa Ahmed is a grad student in the Civil and Environmental Engineering Program. Ahmed received her master's degree in forestry from Michigan State University in the Department of Forestry. Ahmed's Master's degree was on assessing the availability or accessibility of woody residues depending on optimizing transportation cost in different parts of Michigan and how much residues would be available to produce biochar as a soil amendment and a method of utilizing those products to make a product of value and decarbonize in the process.

Lasher outlined the time frame set forth for UVA to complete work for the final report to be completed and submitted on December 1, 2024:

- First draft of the LCA is due to AP October 1.
- AP has five days to review, comment and submit back to UVA.
- UVA will have five days to make comments on what was submitted back to them from the AP.
- The final draft from UVA is due to DOF on November 8.

Establish Meeting Schedule (3 to 4)

Suggested dates:

June 21 – Priority Meeting. Several members indicated there is a conflict with this date and Lasher will provide a second choice.

SECOND CHOICE DATE AND TIME JUNE 18TH 10:00-12:00pm

July 19

August 23

September 20

October 4 – Priority Meeting

Questions

An AP member asked if UVA has a work plan place to meet the tight deadline. Peterson and her team have been working on the project for two weeks and have not formalized what their plan. The first part that is going to be done is to capture the current operations and then move on to the hypothetical alternative scenarios. If it is helpful, Peterson can provide a draft plan that would lay out the modeling the team would do.

An AP member suggested as the UVA team is outlining their plan to also make a schedule of what the team needs from the AP and when. This would be helpful for the AP to prepare for future meetings. The AP is discussing what types of things the UVA team is looking at, what kind of data sources they want to see, what kind of scenarios might happen, logging operations or temporary projects that are feasible, etc.

An AP member asked if the UVA team has been provided the material that was discussed in Phase I. Lasher indicated that all information from Phase I was provided to the team. Due to the timeline of the project, the participant would find it helpful if a summary of what is going to be discussed at the next meeting is given to the group so participant can be prepared prior to the meeting. Lasher thought this was a great idea.

Lasher provided the basic framework of how things are to work for the group to make the meetings as effective and efficient as possible and is open to suggestions. A week or more prior to each meeting Lasher will provide the AP the minutes and a summarization of any information submitted into the "Dropbox". Questions, recurring concern, or a reoccurring idea or highlight will be posted, and this will guide the discussion.

A participant asked Peterson what the lifecycle boundary is and what kind of variables will be incorporated due to the complexity of forest biomass and the forest overall. The participant also wanted to know the alternative scenario for what will happen to the biomass if it is not utilized in the power plant. Lasher indicated that there are parameters spelled out in the legislation and as far as what happens to biomass when it is not being used any longer, this would fall into category three.

An AP member asked how the team was going to handle number four. Peterson and the team have started looking at this by reading the VCEA. The team's interpretation of technological advances in biomass energy generation is hardware changes such as hardware storage and carbon capture storage retrofit. If the AP has a technology that has relevance, Peterson said her team would be willing to run it down and put it in the mix. Farrell reiterated that the legislation has tasked the AP with this report and the UVA team is helping with the report. Farrell suggested that the question be reversed so that the AP members guide the interpretation, rather than UVA. This way DOF is driven by the AP and the UVA team is assisting DOF in gathering information related to what the AP thinks about all five of the questions. Farrell wants to make sure the AP understands this is a participatory AP driven effort and to make sure that the AP is providing their input and guidance on all five questions and discussions.

Key Items and Key Points Regarding Questions 1-5

Lasher opened the floor giving each AP member to discuss key items and points on the five questions.

An AP member indicated the bill included operational efficiencies, other control technologies that might be available or new that have emerged, fuel mix, different considerations and variables that may or may not impact a life cycle analysis.

An AP member wanted to be clear that the group is still only talking about the Dominion Energy facilities, which is correct. Another AP member indicated that if this is the case, technologies such as carbon-capture-and-storage would have to be looked at as it relates to the three biomass plants and if there is enough space to store the carbon, a pipe to transport carbon, etc.

An AP member indicated in question one that if only looking at policies in the PJM region, it is important to know that Dominion move from fixed resource requirements (FRR) to regular capacity markets in 2024. This affects how Dominion participates in the market and what types of reserves they are required to have on hand. This could affect the alternative analysis. The UVA team indicated that in their readings they realized that part of the draw radius for the Southampton utility comes from North Carolina, which is not in the PJM transmission. The team is considering adding North Carolina policies to the list of states they consider. The AP member clarified that it is not exclusive to PJM, it is also Southeastern state and North Carolina does have a biomass electricity generation facility.

An AP member brought up the question of how the AP will provide everyone's input to the UVA team. There was a significant amount of debating during last year's process; and due to the time constraint on this year's process, how is the AP going to have productive conversations to provide information and data that will serve the team and their process in a timely manner? Lasher indicated the venue to bring up issues and high-level concerns is in the monthly AP meetings. Identify the larger issues at these meetings and virtual calls, any supporting documents or positions are put into the "Dropbox" on SharePoint, a summarization is made of these documents and points, and bring them up at the next meetings to let the group know what direction we are going in. Lasher also indicated that when it comes down to if the group does something or does not, it will come down to whether it is provided as guidance within the statute or not.

An AP member indicated that if the group reviews last year's materials there were a couple of stark areas and divergence among the group, and when those are clear that would give guidance to the UVA team as to what scenarios to model. The member also like the idea of modeling multiple alternative scenarios based on stakeholder input.

An AP member asked the UVA team if there is anything the AP could do to help educate the team on the current state of what is going on as far as forestry and forest harvesting in Virginia and in the areas specifically. Lasher said extended the invitation to the team to take tours of sites if time allows.

An AP member was concerned about the data of how much additional harvesting was occurring because of biomass on site, additional trees being taken, how old the trees are, which all relates to how long it takes to recapture carbon landscape. A lot of data was not captured on this and the report from last December acknowledged that additional trees

can be taken to meet the biomass demand. The group is going to have to somehow get a sense of whether tops of limbs of trees are going to the sawmill and pulp mill and are additional trees being taken. This was a major issue that the group struggled with last year and the member indicated that if the information is not received this year the LCA will not be telling the group anything because the group will not know what is happening in term of additional harvesting that is occurring. Another AP member responded by indicating from a social, cultural and forest management point of view, we want those trees to come out because they are lower quality and not species we want from forest management perspective, getting them out of there so that we can get the species or type of trees that we want is beneficial in certain circumstances. The UVA team indicated this is where they can get into some of the BMPs of forestation and sedimentation and runoff that come with certain type of forestry. It was also clarified that the additional harvested biomass was as a result of the harvest occurring, and not the sole purpose of the harvest.

Peterson indicated it is important to acknowledge that a life cycle model, like any model, is an abstraction or representation via creation of the system that is being studied and the team will try their best to capture the features of the system that are most germane to what the overall CO₂ release is. There are only so many ways to make the richness of nature show up as a mathematical expression and regarding the tops of the trees versus the whole trees, this would be a parameter the team would use as a model. Different information can be put into this model to see what the outcome would be. The team would look at the results and assess whether it would have been worth it to have spent more time collecting data. Another AP member pointed out that the geographical location of the mills affects the type of forest from which the type of material is sourced and the impact of the removal of the material of forest health or the economic viability of timber harvest is different in a predominantly Appalachian hardwood system than it is in a Piedmont or coastal plain pine dominate system. This information needs to be incorporated into the supply areas for the three different Dominion facilities.

Lasher pointed out that the statute indicates that the group needs to determine certain things. It does not say the group needs to determine it by size, by health or by quality. It says we need to determine what the overall impacts are. An AP member indicated the statute does say in 10.1-1309.1, subdivision A1 what forest related materials are. There are parameters that are also included in the biomass harvesting guidelines that have just been publicized. There are confines and definitions to the type of material that can be utilized for electricity generation that exists. We will provide this additional information at meeting #2.

An AP member asked if the group needed to go over HB2026 with the UVA team since they are new. Lasher indicated he would provide the team with a copy of the statute. Lasher gave each participant an opportunity to address the team to highlight and key items regarding HB2026.

An AP member spoke about the forest harvesters (loggers) and the business of buying timber of the highest value and getting the greatest return. The member also brought up that there is a time on life cycle.

An AP member indicated that the intent has always been to use the undesirable or leftover forest harvest. It will be hard to estimate on data. It is difficult to quantify the impacts of land use changes.

An AP member indicated that what the loggers cutting in the woods are done at the direction of a landowners and a forest management plan and what their interests are in terms of what they want to see with their land. The member is not certain how a landowners management objective is and how it relates to a biomass harvest would be accounted for in an LCA. The landowners do not know where the material is going. Another point the member raised is there is carbon sequestered in finished forest products.

Another AP member indicated decomposition is a big factor in the Piedmont Coastal Plain where the facilities are operating. The previous stand needs to be removed regardless of the value of the trees. If the harvest is not used as biomass, it will either be left on site to decompose, cut down and left to decompose or pushed into a pile and burned. Decomposition is going to be something that must be handled.

Another AP member indicated controlled burning (site preparation) has declined.

Another member reiterated that forest health is very important to reestablishing trees for the future which is going to help with the carbon sequestration if it is in the healthiest condition when planted back. Removing waste under a forest management plan provides for that healthier scenario.

Another member indicated an important part of the statute in the CLCA is foregone sequestration, which other CLCA's have shown as a major impact on the net emissions. Peterson responded that they are aware of the differences in the parameter values, and it will be something her team is attentive to.

Another member indicated he is looking forward to seeing what the first returns are and where the work leads us.

Another member indicated the wood business is very volatile and when landowners do a harvest it is heavily impacted by the market price at that moment, which is especially true in the hardwood business. The timber is going to be harvested when the landowner needs to money and when they are going to make the most money on that timber, be it hardwood or softwood. Volatility of the wood business needs to be factored in.

Closing Remarks

- Confirm everyone has access to Teams. If not, will adjust to SharePoint.
- Look for an alternative date to the June 21 meeting due to conflicts for many attendees. ALTERNATIVE DATE SELECTED; June 18th 10:00-12:00pm
- Continue to reach out to provide information as it becomes available.
 - Meeting information will be posted on Town Hall
 - Virtual Link for meeting
 - Upcoming agenda
 - Minutes from previous meeting
- Goal is to have minutes and other documents wrapped up within one week after the meeting.

Lasher thanked everyone for coming.

Adjourn