Meeting Minutes
Tuesday, June 18, 2024
Meeting 2

Biomass Advisory Panel Meeting
Virginia Department of Forestry (DOF) Board Room

Biomass Advisory Panel (BAP) Attendees: Terry Lasher (DOF); Rob Farrell (DOF); Kyle Shreve (VFA/Advantus Strategies); Corey Conners (VFA); Scott Barrett (VATech); Martha Moore (VAFB); Mike Davis (NOVEC); Susan Seward (VFPA); Brad Copenhaver (VAC); Josephus Allmond (SELC)

Attendees: Lisa Colosi Peterson (UVA); Abigail Van Eerden (UVA); Nafisa Ahmed (UVA); Ember Jenison (DOF); Jennifer Leach (DOF); Zoe Bergman (DOF); Edela Cancela (SELC), Rachel Henley (VAFB)

Virtual Biomass Advisory Panel Attendees: Liz Willoughby (Dominion Energy); Ron Jenkin (VLA)

Virtual Attendees/Participants: Sabina Dhungana (USFS); Rabita Reshmeen Banee (DOE); Charles Paullin (VA Mercury); Ava Lovain (DEQ); Adam Clint (NC Carbon Alliance); Charles Hegberg (RES/USBI)

The meeting convened at 10:00 AM and adjourned at 12:00 PM

Welcome and Introductions

Terry Lasher (Assistant State Forester,) welcomed everyone to the second Biomass Advisory Panel meeting. Everyone in attendance introduced themselves.

Reminders

Purpose and Charge of the Advisory Panel

Convene an advisory panel 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.

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 amount 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.

5. 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.

SharePoint Documents Posted

Lasher recommended members to read the research paper entitled *The Burning Question: Does Forest Bioenergy Reduce Carbon Emissions? A Review of Common Misconceptions about Forest Carbon Accounting* by Michael T. Ter-Mikaelian, Stephen J. Colombo, and Jiaxin Chen, that was provided on SharePoint and email. He also reminded everyone of the FOIA requirements provided at the first meeting.

<u>Bio-Power LCA Update Presentation</u> – Dr. Lisa Peterson

Dr. Peterson started her presentation by giving a quick overview and framework of Life Cycle Analysis (LCA 101) and how her team will be doing the LCA to get the results the members need to complete their tasks at hand.

- LCA 101 – What are we modeling?
  - Systematic analysis of environmental impact of a product, process, or system over its entire life cycle
  - RME (raw material extraction) + MFG (manufacturing) + USE + EOL (end of life)
  - ISO 14000, 14040

- Stage 1 – Study Design Parameters *(This is the stage the UVA team and members are at now)*
  - Goal Statement:
    - This study will…
      a) The Intended application
      b) The Reasons for carrying out the study.
      c) The audience, and
      d) Whether the results will be used in comparative assertions released publicly

    - Global Warming Potential (GWP) = accounts for aggregated climate change impacts of multiple greenhouse gases accruing over 100-year time horizon (IPCC)

  - Functional Unit (FU) *(looking at this as a tool to deliver some value)*
    - All compared cases deliver same useable output ("FUNCTION")

    - All compared cases operate over same hypothetical timeline.
      - Analyze GWP emitted each year, accumulating over a 100-year horizon *(Dr. Peterson recommends as a starting place, imagine the base case and any alternatives operating over 100-year period starting in 2028 when the plants were original set to close.)*

  - The System Boundaries – Representation of Forest and Biomass Power Operation
    - Nominally doing "cradle to grave"
      - **FOREST** + T&P (transportation & processing) + **POWER**

  - The Cases
    - **FOREST**
      - **BASE = BIOENERGY FROM HARVEST FRs**
        A1. NO HARVEST (without CONVERSION) "HIGHEST SEQUESTRATION CASE"
        A2. FRs SITE PREP BURN (FR = forest residuals)
        A3. FRs DECOMPOSE IN PLACE
        A4. LAND CONVERSION (FOREST LOSS)

    - **POWER**
      a) **BASE = BIOPOWER (GWP_{POWER} = MEAS'd VALUE)**
        A1. DISPATCHABLE – NATURAL GASE
        A2. DISPATCHABLE – PJM/VA_{MIX} (incl. NUCLEAR)
        A3. DISPATHABLE – RENEWABLE + STORAGE *(Will just call this RENEWABLE + STORAGE)*
        A4. INTERMITTENT – 100% RENEWABLES

  - Scenarios Walk Through – Counterfactuals *(did not get to this)*

Presentation was wrapped up with final questions from members and two tasks Dr. Peterson will work on before the next meeting: 1) Look at more detailed treatment of mill residues; 2) read and provide thoughts on the report Corey Conners suggested (*Projecting Landscaping Forest Carbon Emissions from Changes in Forest Biomass Electricity Generation and Forest Products Markets from 2014 to 2035: An Analysis in Minnesota, Oregon, South Carolina, Virginia, and Washington,* February 2018). Report can be found on SharePoint.

Group Homework

- Double check whether you have access to SharePoint. If not, send an email to Ember Jenisen.
    - Ember will provide a follow up after the meeting with her contact information.
    - Members can email Ember directly so she can walk them through the process to get SharePoint working properly.
    - If, after working with Ember, SharePoint cannot be accessed at all, another solution for receiving documents will be provided.

- Go back and look at the study and slides and see if you have any questions, ideas, suggestions between now and the next meeting. If so, you should put them into the drop box on SharePoint labeled "Drop Box June 18, 2024, Meeting" by July 12.
    - These questions, ideas and suggestions will be synthesized by Lasher to prepare for the next meeting and will help create the meeting agenda.

Leader Homework

- Provide members with the report Corey Conners suggested (*Projecting Landscaping Forest Carbon Emissions from Changes in Forest Biomass Electricity Generation and Forest Products Markets from 2014 to 2035: An Analysis in Minnesota, Oregon, South Carolina, Virginia, and Washington,* February 2018). The report is on SharePoint as well.

- Meeting minutes from today's meeting turned around withing next seven days and provided to the members.

- Send out list of participants.

NEXT MEETING JULY 19, 2024, 10:00-12:00

Adjourn