Meeting Minutes Friday, August 23, 2024 Meeting 4 (meeting 3 cancelled)

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

<u>Biomass Advisory Panel (BAP) Attendees:</u> Rob Farrell (DOF); Kyle Shreve (VFA/Advantus Strategies); Corey Conners (VFA); Scott Barrett (VATech); Brad Copenhaver (VAC); David Carr (SELC)

Attendees: Lisa Colosi Peterson (UVA); Nafisa Ahmed (UVA); Ember Jenison (DOF); Jennifer Leach (DOF); Rachel Henley (VAFB)

<u>Virtual Biomass Advisory Panel Attendees</u>: Liz Willoughby (Dominion Energy); Ron Jenkin (VLA); Judy Dunscomb (TNC); Mike Dowd (DEQ); Tom Ballou (DEQ); Mike Davis (NOVAC)

<u>Virtual Attendees/Participants</u>: Sabina Dhungana (USFS); Rabita Reshmeen Banee (DOE); Ava Lovain (DEQ); Missy Neff (Dominion Energy); Kiara Winans (VATech); Meade Spotts (Spotts Fain, PC); Travis Rickman (OAG)

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

Welcome and Introductions

Rob Farrell (State Forester) welcomed everyone to the fourth Biomass Advisory Panel meeting. Everyone in attendance introduced themselves.

Reminder of Advisory Panel's Purpose and Charge

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.

Chapters 1, 2, 3, 4 Update and Discussion from Group

The group discussed the draft outline of the Biomass Advisory Panel Report sent out prior to the meeting.

<u>Chapter 2 (2.2)</u>: Abigail, with Dr. Peterson team, has put together considerable information and will be finalizing it.

Chapter 3: DOF is writing.

Chapter 4: DOF will be using FIA data to complete.

Chapter 5: Dr. Peterson's team is working on this and will be asking for technical advice.

Drop Box Items. Questions?

Farrell stated if anyone was still having issues with accessing SharePoint to contact Ember Jenison to get issues worked out, as this is the main source of sharing documents between advisory panel members without a lot of emailing back and forth.

Dr. Peterson's Presentation

Placeholder: Base Case Results for Hopewell

Dr. Peterson used Hopewell facility to show preliminary results to make sure the advisory panel is on board with the approach she and her team are taking before repeating the process for the other two facilities. Peterson went over the base case methods, she also talked about the base case model and the alternative features model and how both have different kinds of uncertainty.

Advisory panel members discussed mill residues, and Peterson said did not account for residues Dominion was purchasing for their plants to be consistent with what the advisory panel did last year in their LCA light, which was based on a variability of 5-15%. Peterson will put mill residues back into the model, and Farrell will follow up with Dominion after the meeting to see if he can get closure on what the 5-15% was based on.

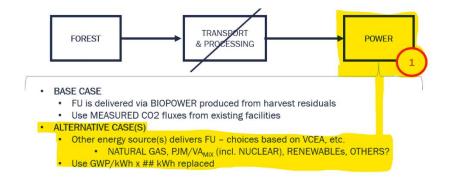
Preview of the Prioritization to Define Alternative Uses (carbon flux)

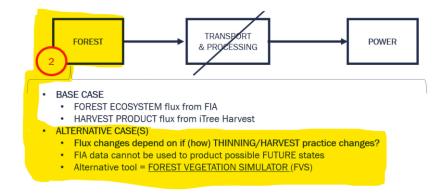
Peterson showed a table of base case results of Hopewell and the carbon flux.

A	В	C	D	E	F
LCA CLOCK YEAR	ANNUAL FOREST UPTAKE [tonnes C]	ANNUAL FOREST EMISSIONS FROM PRODUCTS HARVESTED OVER PAST 100 YEARS (ACCUMULATED) (C_EM.OTHER) [tonnes C]		ANNUAL TRANSPORT & PROCESSING (tonnes	ANNUAL NET
Forest Ecosystem C, tonnes/acre	89				
Area (A _H x f _D), acres	3.33E+04				NET ≈ (
Harvested Products Emissions, tonnes/hectare (other than Hopewell power)		190			
Area (A _H x f _H x f _D), acres		3.33E+04			
Area (A _H x f _H x f _D), hectares		1.35E+04			
Power Emissions (HOPEWELL ONLY), tonnes C from LCA LITE]			3.94E+05	_	
Chip Processing Emissions, tonnes C				5.00E+02	
ChipTransport Emissions, tonnes C				5.98E+02	
omprimisport Emissions, torries o				0.002.02	
			STEADY STA	TE	
	0.005.00	0.505.00	0.045.05	1.105.00	0.005.0
1	2.96E+06 2.96E+06	2.56E+06 2.56E+06	3.94E+05 3.94E+05		-3.82E+0 -3.82E+0
	2.96E+06	2.56E+06	3.94E+05		-3.82E+0
1	2.96E+06	2.56E+06	3.94E+05		-3.82E+0
·	2.96E+06	2.56E+06	3.94E+05		-3.82E+0
3	2.96E+06	2.56E+06	3.94E+05		-3.82E+0
7	2.96E+06	2.56E+06	3.94E+05		-3.82E+0
	2.96E+06	2.56E+06	3.94E+05		-3.82E+0
	2.96E+06	2.56E+06	3.94E+05		-3.82E+0
10	2.96E+06	2.56E+06	3.94E+05		-3.82E+0
11	2.96E+06	2.56E+06	3.94E+05	1.10E+03	-3.82E+0
12	2.96E+06	2.56E+06	3.94E+05	1.10E+03	-3.82E+0

Alternative Scenarios Refresh – How Do These Work?

The proposed methods for the alternative case(s) changes will be made to two parts of the model: forest and power; transport and processing becomes moot because there are no residuals, assuming nothing gets transported to the mills.





Peterson showed various graphs of proposed framing of alternative cases. The alternative cases are:

- UNCHANGED Thin/Harvest Practice
- CHANGED Thin/Harvest Practice
- LAND CONVERSION

Peterson will make a table of possible scenarios that could happen and what assignment model parameters would be required for advisory panel members to fill in the blanks. Advisory panel needs to agree on the assumptions.

Due to the LCA first draft October 1 deadline, if Peterson has any material to share with the group, she will put it on SharePoint and Rob and Terry will determine the best way to for the advisory panel to discuss prior to the September 20 meeting

Next meeting September 20, 2024, 10:00 a.m.

Adjourn