

NECC 1501 – Sustainable Farm Energy Production and Use

Annual Meeting Minutes (Draft)

19 July, 2018

Morgantown, WV

1. Welcome and introductions:

Present:

Dan Ciolkosz, Penn State
Ed Johnstonbaugh, Penn State
A J Both, Rutgers
Tom Manning, Rutgers
Kaushlendra Singh, West Virginia University
Drew Schivonne, University of Maryland

Online:

Matt Smith, University of New Hampshire

The minutes of the previous meeting, as prepared by Stephanie Lansing, were reviewed and approved (Motion E Johnstonbaugh, Second, A Both)

2. Station Reports:

New Jersey -

Discussion of VPD as a basis for humidity control, and potential energy implications
Plant lighting and new standards via ASABE were discussed
Greenhouse energy use benchmarks were discussed, including use of HDD X % occupancy as a measurement tool

New Hampshire -

Refining performance of energy recovery composting facility, uses waste from 50 cow dairy, recovers ~40,000 btuh of heat, could recover much more.

Maryland -

Performing a needs assessment to use as basis for extension program plan in energy. Could be an early focus on energy efficiency with later work on renewables.

West Virginia -

Moving from bioenergy to biocarbon products
Discussed new ASABE wood chip standard

Pennsylvania -

Projects: NEWBio drew to a close in 2017. Notable outcomes include the Association of Warm Season Grass Producers and an extension curriculum for Switchgrass, Miscanthus, and Shrub Willow. The State Wood Energy Team neared the close of its time of operation, and made plans to shift its focus to wood-based-biochar market development.

Other Education: The RESS online master's program was reorganized at the close of 2017, including the elimination of the bioenergy option. The long term fate of the bioenergy courses

remains unclear.

Other Extension: A short course was given in Ecosystem Services for Bioenergy Crops, and the online Biogas course was made available to the public.

Other Research: Projects included Debarking of Short Rotation Willow, Bio-oil refining, Torrefaction and Alkaline Pretreatment of Wheat Straw, Biochar-based catalysis for hydrolysis, Biomass sorbent properties, and biomass densification.

Other Experiment Stations not present but submitting reports:

Virginia

Illinois

3. Next Year's Meeting:

Co-siting with NABEC did not seem to draw participants.

No strong volunteers for next year - will send out a call to membership.

Chris Callahan/Vermont were suggested as a good site for next year's meeting.

4. Discussion of Team Performance and activities:

Consider collaborating on a series of articles for a popular publication

Consider proposing a standard to ASABE or other

Project Objectives - Review of status:

Project Objective 1. Survey Report

We have not made progress beyond the outline created at last year's meeting - need to establish deadlines

- Rough draft will be ready by 15 January

- "Beta version" will be ready for review by next year's summer meeting

As a matter of review, the outline and responsibilities are given below:

1. Energy Use On-Farm Data
 - a. NRCS Farm Audit Data Analysis (lead: PSU, collaborate: UMD, RU, VT).
2. Energy Efficiency
 - a. Smart Metering (lead: UI; collaborate: PSU)
 - b. Equipment Use and Installation (lead: UW; collaborate: XX)
 - c. Greenhouse Energy Management (lead: Rutgers; collaborate: UConn)
3. On-Farm Energy Production
 - a. Solar, Wind, Geothermal (lead/collaborate: Rutgers/UNH)
 - b. Biomass Heating
 - i. Combustion/Gasification (lead/collaborate: PSU/UI/UMD/UV)
 - ii. Composting Heat Recovery (lead: UNH; collaborate: XX)
 - c. Biogas (lead: UMD; collaborate: PSU)
 - d. Biofuels (lead/collaborate: PSU/UV/UNH)

Recommended format for each section is as follows:

1. Introduction to topic
2. Current status in the region
3. Case study (as appropriate)
4. Conclusions and summary
5. Outlook for future
6. References
7. Appendices (as appropriate)

Sections need not be inordinately long, and should reflect current knowledge and perspectives (i.e. not require new research).

Project Objective 2. Identify needs and opportunities

We have already identified beginning farmers and USDA personnel as two population groups where opportunities exist. The ongoing needs assessment in Maryland will help bring additional opportunities to light. Also, development of the survey report (objective 1) should add to our understanding of needs and opportunities. College students taking part in our courses are another area of need/opportunity, as well as states that do not have an active program in farm energy.

Project Objective 3. Develop joint proposals

No new opportunities were identified beyond those listed previously. We are still waiting on work from the BFRDP proposal, and there appears to still be potential for funding from USDA NRCS on our benchmarking idea.

We discussed the NEERA grant, and decided that until a more pressing topic need came to light, we probably don't have a compelling case to bring before them.

5. Meeting adjourned, 12:03 pm

p.s. During the post meeting lunch, it was brought up that we have not done a good job of following our project's official structure in terms of establishment of officers, and should make efforts to correct this problem.