Opportunities for Growth and Financial Incentives in Northeast/Mid-Atlantic

Gary Felton
Extension Agricultural Engineer
University Of Maryland
Overview

• Legislative changes
• Maryland
• NY
• VT
Net Metering Law

- Maryland’s net-metering law
  - originally passed 1997
  - expanded several times since
- Rules apply to all utilities
- Systems that generate electricity using solar, wind, biomass, fuel cell, closed-conduit hydroelectric, and micro-CHP resources are eligible
Net Metering Law

• Net metering is available statewide until the aggregate capacity of all net-metered systems reaches 1,500 MW. (approximately 10% of 2014 peak demand)

• System size is generally limited to 2 MW

• Net excess generation (NEG) is generally carried over as a kilowatt-hour credit for 12 months. Compensation for any NEG remaining in a customer's account after a 12-month period is paid to the customer at the commodity energy supply rate.
Net Metering Law

- Customers own all renewable-energy credits
- Meter aggregation is permitted for agriculture, as well as non-profit organizations and municipal governments or their affiliates.
Net Metering Law

• Utilities must install a meter capable of measuring the flow of electricity in both directions.
• Utilities must offer net metering through a tariff or contract at non-discriminatory rates.
• The net-metered customers pay a monthly customer charge.
Overview

- Legislative changes
- Maryland - Incentives
- NY
- VT
Maryland - AWTF

• Animal Waste Technology Fund
• Provides incentives ($) to companies that demonstrate new on-farm technologies for managing animal manure.
• These technologies generate energy from animal manure, reduce on-farm waste streams, and repurpose manure by creating marketable fertilizer and other products and by-products.
Maryland - AWTF

• Will fund one or more projects.
• Up to $3.5 million will be granted. Approximately $2 million will be directed to renewable energy.
• Who? Individuals, businesses and non-profits in good standing to do business in Maryland and State and local government entities.
• No research.
Maryland - AWTF

• Proposed projects must be located in Maryland.
• Third party monitoring
• Available for tours
Maryland - AWTF

• Has funded fluidized bed project, pyrolysis project, anaerobic digestion project, composting project

• Projects must have a nutrient management component

• Available for tours

• Funds provided by the Chesapeake and Atlantic Coastal Bays Trust Fund and the Maryland Energy Administration.
Maryland - MEA

• Animal Waste to Energy Grant Program

• Open to businesses, government agencies, and non-profits in Maryland.

• Up to $6,000,000 dollars

• Two areas of interest: pilot or on-farm scale projects with capacities of less than 2MW. (40 percent cost-share required) and community or regional scale projects with capacities of greater than 2MW. (50 percent cost-share required)
Maryland - MEA

Project selection criteria (partial list)

• Capacity and efficiency of the project in producing electric energy;

• Quantity of animal waste and co-digestion material (food or other organic materials) that can be processed by project (project must include at least 51 percent animal waste).

• Effectiveness of project at reducing waste volume and addressing the remaining byproducts;

• The ability of the project to eliminate/reduce nutrients from the waste stream;

• Ability to beneficially use any by-products generated by project and potential market opportunities for such byproducts;

• Funds secured and/or already invested in the project (skin in the game);
Maryland - MEA

• Combined Heat and Power Grant Program
• $4 Million first come, first served program
• Target: commercial, industrial, institutional, and critical infrastructure facilities (including healthcare, wastewater treatment, and essential state and local government facilities), and to encourage the implementation of CHP technologies.
• Maximum per project cap = $500,000
New York - NYSERDA

• New York State Energy Research and Development Authority

• Develop a less polluting and more reliable and affordable energy system.

• Aim to reduce greenhouse gas emissions, accelerate economic growth, and reduce customer energy bills.
New York - NYSERDA

NYSERDA Funding Programs

• Advanced Clean Energy (ACE) Exploratory Research Funding
• Agriculture Energy Audit Program
• Air Source Heat Pump Program
• Charge Ready NY
• CHP Program
Vermont

• Sustainably Priced Energy Enterprise Development Program, with 25-year contracts at fixed rates. The program was capped at 50 MW. It has morphed into a great information source, but no grants.

• The Clean Energy Development Fund that offered $250,000 grants has been depleted. Now mostly small grants for pellet and wood stoves.

• Central Vermont Public Service Corporation Cow Power project are also largely depleted. Cow Power allowed utility customers to purchase renewable energy for $0.04-kwh above retail to support farm projects. Remaining funding will largely be used for technical assistance.

• Funding from the state’s Agricultural agency is also drying up.
Summary

EQIP    REAP
AWTF    MEA Waste to Energy, CHP
Waste Handling
AD
CHP
Electrical connection
Summary

Four Proposals
15-100 pages?

One stop shop?
QUESTIONS

Gary K. Felton, Ph.D.
Associate Professor
Extension Agriculture Engineer
College Park, Maryland 20742-2315
301.405.8039 TEL  301.314.9023 FAX
gfelton@umd.edu