

EPA Stakeholder Workshop: Fostering Constructive Dialogue on the Role of Biomass in Stationary Source Carbon Strategies New Hampshire Practices/Perspectives

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About New Hampshire Forests

- The Granite State is 2nd most forested state in U.S. (trailing Maine). Forests occupy 84% or 4.8 million acres
- **Economic value of forest-based components of NH economy = \$2.26 billion annually, 4% of GSP**
 - manufacturing = \$1.14 billion; 8,160 jobs; \$384 million payroll
 - recreation & tourism = \$1.12 billion; 11,401 jobs; \$224 million payroll
 - Sale of Christmas trees, wreaths and maple syrup valued at over \$7 million
- Families own 68+% of the state's forests, government owns 24%, and the rest is owned by businesses
 - Forest landowners received over \$30 million from the sale of their timber in 2009, resulting in taxes of \$3+ million



About New Hampshire Forests

- In 2009, 1.17 million cords of wood were harvested while 2.74 million cords grew
- Sustainable (growth > harvest) use of NH forests has resulted in trees that are larger than in the past and getting larger
 - Biomass decay in unmanaged forests emits methane
- Harvest levels were down from 2005—except for harvests of wood used for energy, which were up 25%



Benefits of NH Forests

- 217 state forests & parks & 37 conservation easements (367,800 acres) managed by professional foresters, wildlife biologists, & ecologists to provide wide spectrum of benefits, including:
 - forest products such as lumber and cordwood;
 - recreation trails, wildlife tracking and viewing,
 - hunting and fishing,
 - maple sugaring,
 - Fall foliage viewing, and
 - clean water/air.



New Hampshire Forest Trend

- Area of forest land has declined slightly
- 3/4 of decline occurred in southern NH, where rapid development has extended into previous forested areas
- Incentives needed to reduce rate of decline



Practices

- Renewable Portfolio Standard (RPS)
- Regional Greenhouse Gas Initiative (RGGI)
- RGGI Offsets
- Residential Woodstove Changeout Program



Renewable Portfolio Standard (RPS)

- Biomass needs incentive to compete against natural gas in the electricity market
- NH Energy Strategy – In-state biomass increases fuel independence
- NH RPS Class III “existing biomass” 8% in 2017 and thereafter



RPS Example – Schiller Station Unit #5

Conditions in Application Appendix D

- In 2006, replacement of a coal-fired boiler at Schiller Station with a **low-emitting** wood-fired boiler burning approximately 400,000 tons of wood annually
- permitted to burn whole tree chips (forestry, non-forestry, and land-clearing), sawmill residues, and other RPS eligible fuel
- As part of RPS eligibility app (not explicit in rule), agreement:
 - that good forest management standards essential to incorporate into environmentally responsible wood fuel procurement program,
 - to track, with appropriate certification from wood fuel sources or suppliers, and annually report the % of wood purchased that meets one or more of the following criteria:



RPS Example – Schiller Station Unit #5

Conditions in Application Appendix D

- Is harvested from land that is a Certified Tree Farm; or
 - Is harvested on land third-party certified by the Sustainable Forestry Initiative or the Forest Stewardship Council; or
 - In NH & Maine, is harvested under the direction of a forester licensed by the State and harvested in a manner that the forester certifies is not a change in land use; or
 - In Massachusetts, is harvested following a cutting plan approved by the Department of Conservation and Recreation (also referred to as a Chapter 132 Forest Cutting Plan); or
 - Is harvested by a logger certified by a body recognized by the Sustainable Forestry Initiative State Implementation Committee in that State, and is harvested in a manner that the logger certifies both meets state Best Management Practices and is not a change in land use.
- As a mechanism to verify the reporting results, a licensed forester will conduct an audit of a minimum of 3% of the reported wood fuel acquisitions from logging operations to confirm that those sources were accurately represented by the supplier



RGGI Exemption for Schiller Station Unit #5

- Emissions e-reported
- Biomass emissions zeroed out
 - Schiller #5 unique, burned coal in 2005 (applicable), converted to wood in 2006



RGGI Model Rule Applicability

- XX-1.4(a) Any unit that, at any time on or after January 1, 2005, serves an electricity generator with a nameplate capacity equal to or greater than 25 MWe shall be a CO2 budget unit
- XX-1.2 (au) *Fossil fuel-fired.*
 - (1) With regard to a unit that commenced operation prior to January 1, 2005, ... where the fossil fuel combusted comprises, or is projected to comprise, more than 50% of the annual heat input on a Btu basis
 - (2) With regard to a unit that commences operation on or after January 1, 2005, ... where the fossil fuel combusted comprises, or is projected to comprise, more than 5% of the annual heat input on a Btu basis



RGGI Forestry Offsets

- Similar to California's
- 114 page quantification protocol
http://rggi.org/docs/ProgramRevieww/FinalProgramReviewMaterials/Forest_Protocol_FINAL.pdf
- No RGGI offsets issued to date
 - Projects register in CA to get higher value



Residential Woodstove Changeout Program

- Highest ambient air particulate matter (PM) concentrations in Keene, NH primarily from woodstove emissions
- Zero wood-to-energy plants in Cheshire County
- NH DES partnered with American Lung Association to achieve 35 tons of PM emissions reductions



Legislative Support

- April 2015 – Rep. Frank Guinta discussed ways the federal government can support and encourage growth in our timber and forestry industries
- June 2015 – Rep. Ann Kuster (and others) **Urge EPA to Provide Clarity for Biomass Plants**
- November 2015 – Sen. Jeanne Shaheen and EPA Administrator McCarthy **Tout Importance of Biomass Energy to Reducing Carbon Pollution**
- February 2016 – Sen. Kelly Ayotte "We know biomass has a critical role to play in our nation's energy portfolio and going forward I will continue my efforts to ensure all renewable energy sources, including biomass, are allowed to compete on a level playing field."

