Innovative Natural Resource Solutions LLC
www.inrsllc.com

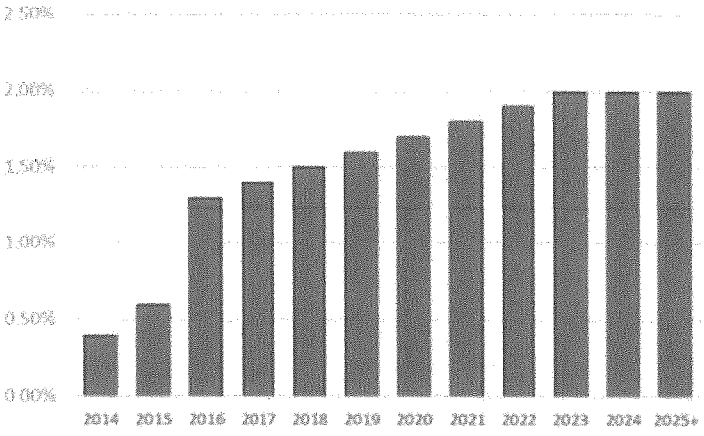
Thermal Renewable Energy Certificates (T-RECs)

New Hampshire is the first state to incorporate thermal energy (heat) into its Renewable Portfolio Standard (RPS) in a comprehensive and technology-neutral manner. Like the majority of states, New Hampshire has a RPS that mandates a certain amount of electricity be purchased from qualifying renewable generators. In addition to electricity, New Hampshire's RPS now includes a carve-out for renewable thermal energy (e.g., heat produced using biomass, solar thermal, geothermal, or other renewable technologies).

As is the case with electricity, utilities are required to support operation of renewable generation through the purchase of Renewable Energy Certificates (RECs) from qualifying generation. These RECs are generated concurrent with the generation of energy (electricity or thermal energy), but can be traded independently for compliance purposes (e.g., a school can use its heat and sell its thermal RECs, in the same way a wind farm can sell its electricity to one customer and its RECs to another).

Percentage Requirements
NH Class I Thermal RECs (NH RSA 362-F:3)

New Hampshire law requires competitive electricity suppliers to purchase a known and increasing number of T-RECs each year, based upon the amount of electricity that the competitive supplier sells.



In 2012, New Hampshire passed legislation to provide a specific carve-out for renewable thermal energy. This carve-out supports the development of biomass thermal projects, particularly community-scale projects. Since becoming law, a number of New Hampshire schools, hospitals and businesses have converted to biomass heating applications. Not only do these new markets support and diversify the market for low-grade wood in New Hampshire, they help save the host institutions money on fuel costs and keep energy dollars in the community.

New Hampshire's program was designed specifically to cut the cost of RPS compliance by acting as a carve-out from the already-existing Class 1 REC requirement, a key provision for its legislative success. Since passage, developers and policy makers have suggested a number of ways to improve the program, including:

- Some methodology to convert future operating revenue from the sale of thermal RECs into a capital subsidy – Massachusetts is considering pre-purchased of T-REC strips; in New Hampshire a private entity funded the T-RECs Enterprise Fund (http://www.t-recsfund.org/, now winding down).
- Measuring of heat and steam production has proven complicated and costly for some projects, and has significantly discouraged participation in this incentive by small users, such as small businesses and homeowners. The development of an appropriate and verifiable proxy for heat, such as metered fuel use, would make the program more accessible to a broader range of parties.

Innovative Natural Resource Solutions LLC was involved in the development of the New Hampshire program, has designed financial tools to support its deployment, and works with a number of T-REC generators on marketing the environmental attributes. We are available to help other states evaluate if this policy – which is already showing significant results in New Hampshire – can support the development of thermal biomass markets in Maine.

For more information:

Eric Kingsley
Phone (207) 233-9910
kingsley@inrsllc.com

Charles Niebling
Phone (603) 532-0122
niebling@inrsllc.com

Charles Levesque
Phone (603) 588-3272
levesque@inrsllc.com

Maine Pellet Fuels Association

97A Exchange Street, Suite 305 • Portland Maine 04101
Phone: 207-752-1392 • Fax: 888-612-0941
www.mainepelletheat.com • feedalliance@gwi.net

Northern Forest Center
Thriving Communities & Healthy Forests

18 N. Main Street, Suite 204 • Concord, NH 03301
Phone: 603-225-0679 • www.northernforest.org

September 13, 2016

To: Members, Commission to Study the Economic, Environmental, and Energy Benefits of the Maine Biomass Industry

Thank you for this opportunity to focus on what we view as an exceptional opportunity for the Biomass Industry Study Commission to strengthen Maine's economy while also advancing our state's progress in meeting renewable energy goals.

Seventy-eight percent of Maine's oil heating dollars **leave our state.** Nearly 100% of these dollars, when spent on modern wood heat (thermal biomass) **stay** here in Maine, generating jobs for loggers, truckers, pellet plant employees, chip fuel producers and suppliers, and others allied with our forest products industry. Converting 10% of our residences to pellet heat—a reasonable goal considering the limited distribution of pipeline natural gas — and 20% of our schools to wood heat—also attainable, when looking to Vermont as an example --- would have a powerful effect on our economy.

Our biomass thermal industry also has an integrated relationship with the biomass electric and other sectors of the forest products industry. What strengthens our wood heat industry strengthens the entire biomass sector.

There are numerous steps which would accelerate the growth of our thermal biomass economy. As members of the pellet and wood heat industry, dedicated conservationists, and advocates for Maine's rural residents, we join together in asking that the Biomass Industry Study Commission recommend the below three priorities:

1, Recommend legislation adding a renewable thermal class to the Maine Renewable Portfolio Standard, to include recognition of high efficiency wood biomass heating and combined heat and power. New Hampshire and Massachusetts have passed such legislation because of clear benefit to both industrial and residential ratepayers.

2. Recommend legislation to mandate revision of Maine's public school funding program with view to promoting modern wood heat. The Maine schools which have installed chip and pellet heat demonstrate the advantages of these systems, as does the high percentage of wood heat in Vermont's schools.

3. Recommend legislation to require that Efficiency Maine establish an incentive program to encourage the installation of pellet heating systems in commercial buildings. Our industry receives repeated inquiries from potential commercial customers who would install pellet heat if provided with incentives similar to those now granted Maine homeowners.

We look forward to working with the Commission to advance not only those recommendations which advance thermal biomass, but also policies which will stabilize and enhance the entire biomass sector of Maine's forest economy.

Sincerely,

Bill Bell, Executive Director, Maine Pellet Fuels Association
Rob Riley, President, Northern Forest Center, South Portland
Charles Niebling, Chair, Policy Committee, Biomass Thermal Energy Council, Washington DC
Robert Clark, Executive Director, Northern Maine Development Commission, Caribou
Robert Dorsey, President and CEO, The Aroostook Partners, Caribou
Matthew Bell, President and CEO, Northeast Pellets, LLC, Ashland
Tyler Player, President, Play Design Inc., Presque Isle
Adam Fronczak, General Manager, Haymart LLC, Patten
Benjamin Otten, Chief Operating Officer, Maine Energy Systems, Bethel
Harry "Dutch" Dresser, Founding Director, Maine Energy Systems, Bethel
William Strauss, President, FutureMetrics, Bethel
Glen Holmes, Director of Operations, Community Concepts Finance Corp., County of Oxford
Clayton Cole, President, Solartech Contractors, Corinth
Bill Crandall, Program Manager, Housing, Western Maine Community Action Program
Kristal A. Flagg, Town Manager, Town of Livermore Falls
Bede W. Wellford, Renewables Sales Manager, Viessmann Manufacturing, Turner
Alison Hagerstrom, Executive Director, Greater Franklin Development Corporation, Farmington
Brendan Schauffler, Network Facilitator, Oxford County Wellness Collaborative, Norway
Marc West, President, Paris Farmers Union, Norway
Erik Carlson, C&L Forestry Wood Pellets, Boothbay
Richard Grondin, PE, President, Integrated Energy Systems, Falmouth
Eric Kingsley, Partner, Innovative Natural Resource Solutions, Portland
Jacob Roberson, Managing Partner, Interphase Energy/Kedel, Portland