

Ms. Jody Carmody State of New Hampshire Department of Energy 21 S. Fruit Street Concord, NH 03301

Dear Ms. Carmody,

Please accept these comments that were requested by your Department regarding Improvements and Potential Changes to the Renewable Energy Fund Programs.

Sincerely,

Mark Froling

President

Froling Energy's Response to Requests for Public Comment on REF Rebate Programs

Comments on the Residential Wood Pellet Rebate

- This program is operating efficiently. The forms are clearly written and once submitted Rebate checks are sent quickly.
- Is this program effective? I think the state could do more to promote the program. I suggest that you do it in a similar way as the Northern Forest Center promotes "Automated Wood Heat". Positive information would inform the public of its existence and encourage them to look into automated wood heat as a real option.
- Prices of system components, piping and labor have all risen in the years since the cap on the 40% rebate was last raised to \$10,000. New residential boiler systems are now averaging between \$35,000 and \$45,000. We suggest that the cap be raised to \$15,000.
- The price of bulk delivered wood pellets has recently gone from below \$300 last year to \$350 or more per ton right now which is the equivalent of buying oil at \$2.91/gallon or LP at \$2.06/gallon. The cost benefit which drives sales has been reduced—even though oil now is selling for over \$4.00 per gallon. Skeptical consumers ask, will it stay up there?
- We suggest that high efficiency rated pellet boilers that are manually filled with bagged pellets be considered as a part of the Rebate program. Manually filled systems could trim off at least \$5,000 from the initial cost of a boiler system. The program could be restructured so that bulk-filled systems have an added incentive which could include the ability to generate Thermal RECs.
- Class 1 Thermal RECs should be available to all "small system" owners of wood pellet boilers. Currently the cost of the required T-REC system, including BTU meter, flow and temperature



sensors and a data logger with the first year fees for engineering and an independent monitor, adds up to at least \$10,000. As a result, residential and small commercial clients are excluded due to this cost. We recommend that receipts for bulk delivered wood pellets to a specific boiler system storage silo be acceptable as proof that credible Thermal RECs were or will be generated. Size of boiler system could be limited to 550,000 BTU/hour boilers. How would T-RECs be calculated? Use a reasonable factor of efficiency based on 16 MMBTU per ton.

 We ask that Cord Wood Boilers be considered in the Rebate program, especially those that use large capacity hot water storage tanks. However you may also consider all EPA certified wood boilers.

Comments on the Commercial Wood Pellet Rebate

- Why do we think there has been such a tepid response in recent years? Mainly it is scale.
 Froling Energy has done some impressive industrial and institutional projects that, due to the
 physical and financial scale of the projects, waited to apply for and win the annual Competitive
 Grant. A uncomplicated school boiler replacement project starts at \$300,000 and with some
 complications can grow in cost a lot higher than that. So the Rebate cap should be raised to
 make it more attractive.
- Many commercial buildings such as factories, warehouses, big box retail and others use rooftop
 oil or LP furnaces. Tying into these heat distribution systems with a boiler room based boiler is
 quite costly.
- Last year Froling Energy installed an absorption chiller at a town library that uses the new wood
 pellet/dried wood chip boiler as a source of heat to both heat and cool the building. Absorption
 chillers for cooling should be part of the Rebate program—although they do add significant cost
 and may well be outside of any additional benefit to the standard Rebate, considering the cap.
 We suggest that an added incentive be instituted for absorption chilling systems driven by
 biomass boilers.
- New construction of centrally heated buildings nursing homes, elderly residential apartments, and hospitals/clinics should be encouraged to make use of wood pellets and dried wood chips.
- Most dried wood chip boiler systems can also burn wood pellets, therefore they also qualify for
 the Rebate, so long as they take a substantial delivery of wood pellets. We recommend that
 screened dried wood chips (perhaps of a certain specification and proof that the boiler is within
 compliance of all emissions laws when burning them) be acknowledged as a fully acceptable fuel
 within the Commercial Rebate program.

General Comments

In some areas wood is being maligned as a "non-renewable" and Froling Energy would like to refute that with a number of practical points that our state's experienced loggers and foresters are well aware of.

 Having healthy wood pellet manufacturing, wood pellet delivery and wood pellet/biomass system installation business in New Hampshire is very good for the state.



- Good forest management with a goal of both health and production of high quality logs for construction or furniture requires the selective culling of rather large quantities of low grade wood
- Urban and residential areas produce large quantities of waste wood from the trimming and cutting down of trees
- Sawmills, modular home builders and wood products manufacturers in general create a large amount of wood waste and sawdust.
- Poorly managed forests that are cluttered with downed trees and debris are at increased risk of forest fires.
- Productive forests that produce some financial returns encourage forest land owners to keep their land as forests and out of development.