

LEGISLATIVE COMMITTEE MINUTES

SB129

Bill as
Introduced

SB 129 - AS INTRODUCED

2017 SESSION

17-0956
06/05

SENATE BILL **129**

AN ACT requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass.

SPONSORS: Sen. Bradley, Dist 3; Sen. Feltes, Dist 15; Sen. Innis, Dist 24; Sen. Avard, Dist 12; Sen. French, Dist 7; Sen. Fuller Clark, Dist 21; Sen. Giuda, Dist 2; Sen. Reagan, Dist 17; Sen. Ward, Dist 8; Rep. Richardson, Coos 4; Rep. Chandler, Carr. 1; Rep. McConkey, Carr. 3; Rep. Shepardson, Ches. 10; Rep. Backus, Hills. 19

COMMITTEE: Energy and Natural Resources

ANALYSIS

This bill:

I. Requires a portion of the funds in the renewable energy fund to benefit low-moderate income residential customers.

II. Makes changes to renewable energy classes.

III. Raises the class rate for biomass.

Explanation: Matter added to current law appears in ***bold italics***.
Matter removed from current law appears [~~in brackets and struckthrough.~~]
Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Seventeen

AN ACT requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass.

Be it Enacted by the Senate and House of Representatives in General Court convened:

1 1 Purpose. The general court finds it is in the public interest to promote customer choice and
2 energy independence by eliminating market barriers to solar energy that low-to-moderate income
3 residential customers face, by sustaining and promoting local renewable energy resources and
4 New Hampshire jobs in the solar and wood products industries, by promoting the stabilization and
5 lowering of future energy costs with more clean energy supply and greater energy diversification,
6 and by further reducing energy costs by reducing New Hampshire's peak demand, including our
7 share of regional electric transmission costs, which recently went up due to our increased share of
8 the regional peak demand.

9 2 Title. The title of this act is the New Hampshire Clean Energy Jobs and Opportunity Act of
10 2017.

11 3 Electric Renewable Portfolio Standard; Renewable Energy Fund. Amend RSA 362-F:10, X to
12 read as follows:

13 X. Consistent with RSA 362-F:10, VI, the commission shall, over each 2-year period
14 commencing July 1, 2010, reasonably balance overall amounts expended, allocated, or obligated
15 from the fund, net of administrative expenditures, between residential and nonresidential sectors.
16 Funds from the renewable energy fund awarded to renewable projects in the residential sector shall
17 be in approximate proportion to the amount of electricity sold at retail to that sector in
18 New Hampshire, and the remaining funds from the renewable energy fund shall be awarded to
19 projects in the nonresidential sector which include commercial and industrial sited renewable
20 energy projects, existing generators, and developers of new commercial-scale renewable generation
21 in New Hampshire, ***provided no less than 15 percent of the funds shall annually benefit low-***
22 ***moderate income residential customers, including, but not limited to, the financing or***
23 ***leveraging of financing for low-moderate income community solar projects in***
24 ***manufactured housing communities or in multi-family rental housing.***

25 4 New Paragraph; Electric Renewable Portfolio Standard; Definitions; Low-Moderate Income
26 Community Solar Project. Amend RSA 362-F:2 by inserting after paragraph X the following new
27 paragraph:

28 X-a. "Low-moderate income community solar project" means ground-mounted or rooftop
29 solar arrays that directly benefit a group of at least 5 residential end-user customers, where at least

1 a majority of the residential end-user customers are at or below 300% of the federal poverty
2 guidelines.

3 5 Electric Renewable Portfolio Standard; Electric Renewable Energy Classes. Amend RSA 362-
4 F:4, III to read as follows:

5 III. Class III (Existing Biomass/Methane) shall include the production of electricity from
6 any of the following, provided the source began operation prior to January 1, 2006 **and except as**
7 **provided in subparagraph (b):**

8 (a) Eligible biomass technologies having a gross nameplate capacity of 25 MWs or less.

9 (b) Methane gas. **Effective for electricity production commencing January 1,**
10 **2017, methane gas shall not qualify for class III if the production is from a source or**
11 **sources which began operation prior to January 1, 2006 and which source exceeds, or**
12 **sources exceed, a total gross nameplate capacity of 10 MWs in the aggregate located at any**
13 **single landfill site. All phases, stages, cells, lifts, expansions, and other landfill areas**
14 **shall be combined in determining the single landfill site gross nameplate capacity. Only**
15 **class III and potential class III eligible sources at any single landfill site shall be included**
16 **in determining whether the 10 MW aggregate limitation has been exceeded.**

17 6 Electric Renewable Portfolio Standard; Minimum Electric Renewable Portfolio Standards.
18 Amend RSA 362-F:3 to read as follows:

19 362-F:3 Minimum Electric Renewable Portfolio Standards. For each year specified in the table
20 below, each provider of electricity shall obtain and retire certificates sufficient in number and class
21 type to meet or exceed the following percentages of total megawatt-hours of electricity supplied by
22 the provider to its end-use customers that year, except to the extent that the provider makes
23 payments to the renewable energy fund under RSA 362-F:10, II:

	2008	2009	2010	2011	2012	2013	2014	2015	2025 and thereafter
24 Class I	0.0%	0.5%	1%	2%	3%	3.8%	5%	6%	15% (*)
25 Class II	0.0%	0.0%	0.04%	0.08%	0.15%	0.2%	0.3%	0.3%	[0.3%] 1.0%
26 Class III	3.5%	4.5%	5.5%	6.5%	1.4%	1.5%	3.0%	8.0%	8.0%
27 Class IV	0.5%	1%	1%	1%	1%	1.3%	1.4%	1.5%	1.5%

28 *Class I increases an additional 0.9 percent per year from 2015 through 2025. A set percentage
29 of the class I totals shall be satisfied annually by the acquisition of renewable energy certificates
30 from qualifying renewable energy technologies producing useful thermal energy as defined in
31 RSA 362-F:2, XV-a. The set percentage shall be 0.4 percent in 2014, 0.6 percent in 2015, [1.3] 0.8
32 percent in 2016, and increased annually by [0.1] 0.2 percent per year from 2017 through 2023, after
33 which it shall remain unchanged. **Class II shall increase to 0.6 percent beginning in 2018, 0.8**
34 **percent beginning in 2019, and 1.0 percent beginning in 2020, otherwise classes II-IV shall**
35 **remain at the same percentages from 2015 through 2025 except as provided in RSA 362-F:4, V-VI.**

36 7 Limited Electrical Energy Producers Act; Net Energy Metering. Amend RSA 362-A:9, XIV(c)
37 to read as follows:
38

1 (c) Notwithstanding paragraph V, a group host shall be paid for its surplus generation
2 at the end of each billing cycle at rates consistent with the credit the group host receives relative to
3 its own net metering under either subparagraph IV(a) or (b) or alternative tariffs that may be
4 applicable pursuant to paragraph XVI. *Each group member of a group host for a low-*
5 *moderate income community solar project, as defined in RSA 362-F:2, X-a, may receive*
6 *credits on the customer electric bill for each member and the host.* On an annual basis, the
7 electric distribution utility shall calculate a payment adjustment if the host's surplus generation for
8 which it was paid is greater than the group's total electricity usage during the same time period.
9 The adjustment shall be such that the resulting compensation to the host for the amount that
10 exceeded the group's total usage shall be at the utility's avoided cost or its default service rate in
11 accordance with subparagraph V(b) or paragraph VI or alternative tariffs that may be applicable
12 pursuant to paragraph XVI. The utility shall pay or bill the host accordingly.

13 8 New Paragraph; Limited Electrical Producers Act; Net Metering. Amend RSA 362-A:9 by
14 inserting after paragraph XVIII the following new paragraph:

15 XIX. No person, owner, developer, or installer of an eligible customer-generator facility,
16 business organization, or any subsidiary thereof, shall use a credit score as an eligibility
17 requirement in any way for residential projects involving net metering; provided, however, a credit
18 score may be used for the group host or third-party guarantor of a low-moderate income community
19 solar project and a residential end-user's utility payment history may be used, as determined by the
20 commission.

21 9 Renewable Energy Fund; Rates. Amend RSA 362-F:10, III to read as follows:

22 III.(a) Beginning in 2013, the commission shall adjust these rates by January 31 of each
23 year using the Consumer Price Index as published by the Bureau of Labor Statistics of the United
24 States Department of Labor for classes III and IV and 1/2 of such Index for classes I and II.

25 (b) In lieu of the adjustments under subparagraph (a) for class III in 2015~~]~~ *and* 2016
26 ~~[and 2017]~~, the class rate in each of those years shall be \$45. *In lieu of the adjustments under*
27 *subparagraph (a) for class III in 2017, 2018, and 2019, the class rate in each of those years*
28 *shall be \$55.*

29 (c) By January 31, ~~[2018]~~ **2020** the commission shall compute the ~~[2018]~~ **2020** class III
30 rate to equal the rate that would have resulted in ~~[2018]~~ **2020** by the application of subparagraph
31 (a) to the 2013 rate and each subsequent year's rate to ~~[2018]~~ **2020**.

32 (d) In ~~[2019]~~ **2021** and thereafter, the class III rate shall be determined by application
33 of subparagraph (a) to the prior year's rate.

34 10 Effective Date. This act shall take effect upon its passage.

Amendments

Sen. Bradley, Dist 3
February 8, 2017
2017-0377s
06/10

Amendment to SB 129

1 Amend the title of the bill by replacing it with the following:

2

3 AN ACT requiring a portion of the renewable energy fund to benefit low to moderate income
4 residential customers, relative to electric renewable energy classes, relative to the
5 class rate for biomass, and relative to requirements for incentive payments from the
6 renewable energy fund.
7

8 Amend the bill by inserting after section 9 the following and renumbering the original section 10 to
9 read as 11, respectively:

10

11 10 Renewable Energy Fund; Incentive Payments. Amend RSA 362-F:10, V to read as follows:

12 V. The public utilities commission shall make and administer a one-time incentive payment
13 of \$3 per watt of nominal generation capacity up to a maximum payment of \$6,000, or 50 percent of
14 system costs, whichever is less, per facility to any residential owner of a small renewable generation
15 facility, that would qualify as a Class I or Class II source of electricity, [~~has a total peak generation~~
16 ~~capacity of 10 kilowatts or fewer,~~] begins operation on or after July 1, 2008, and is located on or at
17 the owner's residence.

2017-0377s

AMENDED ANALYSIS

This bill:

I. Requires a portion of the funds in the renewable energy fund to benefit low-moderate income residential customers.

II. Makes changes to renewable energy classes.

III. Raises the class rate for biomass.

IV. Eliminates the generation capacity requirement for incentive payments from the renewable energy fund.



Amendment to SB 129

1 Amend RSA 362-A:9, XIV(c) as inserted by section 7 of the bill by replacing it with the following:

2

3 (c) Notwithstanding paragraph V, a group host shall be paid for its surplus generation
4 at the end of each billing cycle at rates consistent with the credit the group host receives relative to
5 its own net metering under either subparagraph IV(a) or (b) or alternative tariffs that may be
6 applicable pursuant to paragraph XVI. *Each group member of a group host for a low-*
7 *moderate income community solar project, as defined in RSA 362-F:2, X-a, may receive*
8 *credits on the customer electric bill for each member and the host, limited to one new*
9 *project per calendar year for 3 years in each utility's service territory through 2020. Each*
10 *utility shall provide a report to the commission on the costs and benefits of such projects*
11 *on or before December 31, 2020.* On an annual basis, the electric distribution utility shall
12 calculate a payment adjustment if the host's surplus generation for which it was paid is greater
13 than the group's total electricity usage during the same time period. The adjustment shall be such
14 that the resulting compensation to the host for the amount that exceeded the group's total usage
15 shall be at the utility's avoided cost or its default service rate in accordance with subparagraph V(b)
16 or paragraph VI or alternative tariffs that may be applicable pursuant to paragraph XVI. The
17 utility shall pay or bill the host accordingly.

18

19 Amend RSA 362-A:9, XIX as inserted by section 8 of the bill by replacing it with the following:

20

21 XIX. No person, owner, developer, or installer of an eligible customer-generator facility,
22 business organization, or any subsidiary thereof, shall use any unfair method of competition or any
23 unfair or deceptive act or practice in any way for projects involving net metering.



Energy and Natural Resources
March 7, 2017
2017-0770s
06/10

Amendment to SB 129

1 Amend RSA 362-A:9, XIV(c) as inserted by section 7 of the bill by replacing it with the following:

2

3 (c) Notwithstanding paragraph V, a group host shall be paid for its surplus generation
4 at the end of each billing cycle at rates consistent with the credit the group host receives relative to
5 its own net metering under either subparagraph IV(a) or (b) or alternative tariffs that may be
6 applicable pursuant to paragraph XVI. *Each group member of a group host for a low-*
7 *moderate income community solar project, as defined in RSA 362-F:2, X-a, may receive*
8 *credits on the customer electric bill for each member and the host, limited to one new*
9 *project per calendar year for 3 years in each utility's service territory through 2020. Each*
10 *utility shall provide a report to the commission on the costs and benefits of such projects*
11 *on or before December 31, 2020.* On an annual basis, the electric distribution utility shall
12 calculate a payment adjustment if the host's surplus generation for which it was paid is greater
13 than the group's total electricity usage during the same time period. The adjustment shall be such
14 that the resulting compensation to the host for the amount that exceeded the group's total usage
15 shall be at the utility's avoided cost or its default service rate in accordance with subparagraph V(b)
16 or paragraph VI or alternative tariffs that may be applicable pursuant to paragraph XVI. The
17 utility shall pay or bill the host accordingly.

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19 Amend RSA 362-A:9, XIX as inserted by section 8 of the bill by replacing it with the following:

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21 XIX. No person, owner, developer, or installer of an eligible customer-generator facility,
22 business organization, or any subsidiary thereof, shall use any unfair method of competition or any
23 unfair or deceptive act or practice in any way for projects involving net metering.

Committee Minutes

Senate Energy and Natural Resources Committee
Griffin Roberge 271-2878

SB 129, requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass.

Hearing Date: February 14, 2017.

Time Opened: 10:13 a.m.

Time Closed: 12:01 p.m.

Members of the Committee Present: Senators Avard, Bradley, Innis, Fuller Clark and Feltes.

Members of the Committee Absent: None.

Bill Analysis: This bill:

I. Requires a portion of the funds in the renewable energy fund to benefit low-moderate income residential customers.

II. Makes changes to renewable energy classes.

III. Raises the class rate for biomass.

Sponsors:

Sen. Bradley

Sen. Feltes

Sen. Innis

Sen. Avard

Sen. French

Sen. Fuller Clark

Sen. Giuda

Sen. Reagan

Sen. Ward

Rep. Richardson

Rep. Chandler

Rep. McConkey

Rep. Shepardson

Rep. Backus

Who supports the bill: Senator Bob Giuda (District 2), Senator Harold French (District 7), Senator Ruth Ward (District 8), Senator Kevin Avard (District 12), Senator Dan Feltes (District 15), Senator John Reagan (District 17), Senator Martha Fuller Clark (District 21), Senator Dan Innis (District 24), Mick Mounsey (McDevitt Trucks), Charlie Niebling (New England Wood Pellet), Robert Berti (Foreco), Edward G. Witt, Sr. (Madison Lumber Mill), Dennis McKenney (New England Forestry Consulting), Robert Olson, Jasen Stock (NH Timberland Owners Association), Charles Moreno, Ben Crowell (Durgin & Crowell Lumber), Kim Frase (Frase Electric, LLC), Michael O'Leary, Kate Epsen & Ted Vansant (NH Sustainable Energy Association), Kim Quirk, Brad Simpkins (NH Division of Forests and Lands), Jeremy Turner (MTL), Paul R. Nickerson (NH Audubon), Joya Rose, Jon Baker (Cousineau Forest Products), Michael Blakey (Indeck Energy), Matt Leahy (Forest Society), Dan Earley

(Broadleaf Forest Management), Robert Johnson, III (NH Farm Bureau), Tom Chrisenton, Michael Fitzgerald (NHDES), Don Hardwick, Evan Oxenham, Dennis Labbe (NH Legal Assistance), Hunter Carbee, Robert Lussier, J.J. Smith (NH Public Health Association), Mario Herrick (Hopkinton Forestry), Rep. Marge Shepardson (Cheshire - District 10), Patricia Martin, Rob Werner (League of Conservation Voters).

Who opposes the bill: Michael Licata (Liberty Utilities), Mark Lambert (Unitil), Donna Gamache (Eversource).

Who is neutral on the bill: Karen Cramton (PUC).

Summary of testimony presented in support:

Senator Jeb Bradley

Senate District 3

- Introduced SB 129 and his amendment, 2017-0377s.
- Senator Bradley noted the ongoing discussion for a number of years in optimizing the renewable portfolio standard (RPS) and to ensure it is balanced in driving the cost for rate payers.
- There are numbers of wood plants that employ a lot of people and have generated electricity since the mid-1980s. Many businesses depend on the operation of those plants.
- Biomass plants purchase about \$33 million in wood chips from low-grade wood. This manages forests to the highest level of productivity. The entire forest products industry has an employee count of around 10,000 and economic activity of \$1.1 billion dollars. This industry is vital in the North Country.
- There have been major advancements in solar panels, making them economically viable. The solar industry provides about 1,000 jobs. Solar panels are increasingly becoming popular among residential customers who sell their energy back into the market through net metering.
- SB 129 would increase the solar credit from 0.30% of the overall RPS to 1% over three years. (See Section VI, lines 26, 34-35 on page 2). This will bring NH's RPS in line with that of other states. It will also improve the 1,000 jobs in that industry.
- Senator Feltes inserted a carve-out in Section III, allowing low to moderate income residential customers to use community solar projects. The carve-out will grant lower income residents the opportunity to use net metering.
- Section V better defines the role of any methane gas in RSA statute.
- Section IX is vital for the forest products industry. The alternative compliance payments (ACP) were set at \$45 dollars. It is adjusted to \$55 dollars to ensure the continued operation of those plants. These adjustments are crucial.
- Senator Innis asked if the \$55 in Section IX is a maximum. Senator Bradley said it is factored for inflation on a yearly basis.
- Senator Avard asked for a further explanation on the carve-out in Section III. Senator Bradley said he would leave that to Senator Feltes to address. Given that solar systems are in the \$20,000 range, there are a lot of ways to mitigate

the costs – net metering, federal tax breaks, etc. It is still difficult for people to get the money. Companies like Sunrun and Solar City offer a loan payback arrangement, but it does not work for everyone. Section III gives people the opportunity to take participate in the solar market.

- Senator Bradley also addressed the amendment:
 - Should one want to avail themselves of the PUC solar rebate, it is capped at a total peak generation capacity of 10 KW.
 - A constituent, Kim Frase, introduced the idea of removing the cap because people are working around it by doing separate installations.
 - This does not add any cost. It is not a change to the rate structure. If the amendment is accepted, the state would get more KW hours for less money in terms of the rebate.
- Senator Avard asked how SB 129 will reduce peak demand. Senator Bradley said that on a hot day in the summer or a sunny day in the winter, solar systems can produce an excess of energy that can go back into the grid. On a peak demand day, the spot market price of energy rises. Having solar energy put back onto the grid would lessen the massive price spike.
- Senator Avard mentioned that there are rumors that RPS adds to the cost of energy. Senator Bradley said there are costs to the system, but it does not take into account any of the advantages to the system in having a more diversified portfolio. The dependence on natural gas is getting significant. RPS lessens the reliance on that. It also promotes jobs in the forest and solar industries. He prefers to look at it in a dynamic view. Looking at the overall cost and benefits, there are greater benefits. In particular, when it comes to energy, diversity is key.

Senator Dan Feltes

Senate District 15

- Senator Feltes addressed a question asked by Senator Avard about peak demand. If NH reduces its peak demand, that can lower regional transmission costs. NH's share in transmission cost just rose from 9.5% to 9.7%. NH can mitigate the regional costs passed on the state.
- Presently, there is a lack of access to solar savings and energy incentives for lower income customers. Energy efficiency programs have traditionally had a carve out to help lower income customers.
- Section III will set aside a renewable energy fund (REP) for those types of customers. It discusses community solar and Section IV defines what community solar is.
 - It is important to include ground-mounted or rooftop solar arrays. A ground mounted solar array in the middle of a community park helps all in that park in terms of energy efficiency.
 - "Directly benefit" is important as well. Should a landlord have a park and have tenants in that park, those tenants are directly benefited.
- Section VII on page 3 allows bill credits directly to those customers where the group host has a solar project.
 - If a check is cut to a landlord, who has a bunch of tenants, that landlord

must distribute it. This opens the way for disputes between tenants and landlords.

- To ensure tenants directly benefit, bill credits go directly to the tenants.
- Section VIII removes the ability of a person, owner, developer, or installer to use a credit score as an eligibility requirement for residential projects involving net metering.
 - Net metering is a public benefit. It is used to maximize solar.
 - Some companies have a 700-750 credit score threshold for those who want to use solar, including for net metering. That cuts out a large part of the public and lowers the access to solar.
 - The language is limited – it does not prevent a credit score from being used in other energy projects, and it does not preclude someone from submitting a credit score if they wanted to. It simply cannot be required for net metering---
 - However, on line 19, one can use a user's utility payment history. Using it as a proxy is more connected to the issue rather than a broad credit score.

Michael Fitzgerald

Environmental Programs Administrator, Air Resources Division, NHDES

- Provided written testimony.
- NHDES supports the bill as it devotes a portion of the REF to a low-income renewable energy program.
- Benefits include energy diversity, lowering dependence on fossil fuels, keeping energy and investment dollars within the state, and lowering carbon emissions.
- SB 129 strengthens the RPS. There was an economic study that the RPS provides jobs and economic value to the state. NHDES supports the biomass provision and the revision of the Class III Alternative Compliance Payment (ACP) to return the ACP to near its original value (reversing revisions made in 2011).

Charlie Niebling

New England Wood Pellet

- Provided written testimony.
- Employs 105 people directly and is located in Jaffrey, NH. Heats around 100,000 homes throughout New England.
- New England Wood Pellet does not benefit directly from RPS, but they support the RPS because it has helped to build the market for wood pellet heating and the distribution of wood pellets in bulk to residential, commercial, and institutional building owners.
- The PUC boiler rebate and grant programs funded by the RPS compliance revenues, and the thermal RECs in qualifying modern wood heating systems have provided important incentives during a time of low fossil fuel heating prices.
- Section VI would change the way the thermal carve out in Class I is implemented. It restores the allocation to the simple linear growth that was

proposed in the original enabling legislation, SB 218 in 2012.

- In 2013, with HB 542, this allocation was revised to accommodate Concord Steam Corporation's proposed but now abandoned new combined heat and power plant in Concord, with its sizable quantity of thermal RECs.
- SB 129 will provide about \$2.5 million in reduced RPS compliance cost to ratepayers over the next two years alone, assuming thermal RECs sell at or near the alternative compliance payment rate.
- Lastly, the addition of thermal to the RPS has incentivized renewable projects across the state. Mr. Niebling provided a list of systems that have qualified or will soon be qualified for thermal RECs for biomass heating systems in NH.

Robert Berti

Selectman, Rumney, NH

- The policy in effect with biomass harvesting is the most important tool that foresters, land owners, and loggers have. It is a benefit to a natural resource.
- SB 129 should not be viewed as a bill that only helps the North Country.
 - As a procurement forester for the Bridgewater power plant, 95% of the wood comes from the southern half of the state. SB 129 benefits the entire state.
- The impact of SB 129 on biomass plants cannot just be measured in dollars and cents. It provides a long-term benefit.

Edward Witt

Procurement Forester, Madison Lumber Mill (MLM)

- Provided written testimony.
- SB 129 has vital importance to MLM, especially Section IX.
- Over the past two years, the forest products industry has seen detrimental, structural changes to the low grade wood market.
 - Over 4 million tons of usage has been closed since 2014 in Maine.
 - Biomass plants, when competing against low wholesale electrical prices due to natural gas, struggle to run profitably.
 - Changes in the MA REC program and pending changes in the CT REC program doom MLM's ability to operate.
- These changes place more strain on NH biomass plants. Should the strain be too much for these biomass plants to bear, NH's forest products industry will vanish in a short amount of time.
- Senator Bradley said MLM is in his district and that he has toured it many times. He asked Mr. Witt how many saw mills there are in NH like MLM. Mr. Witt said all the sawmills rely on the chip market. There are two larger than MLM, one of the same size of MLM, and about half dozen that are smaller. Senator Bradley estimated that those companies represent about 500 jobs. Mr. Witt said that is correct.

Dennis D. McKenney

District Manager, New England Forestry Consultants, Inc.

- Provided written testimony.

- The biomass industry is important to the forest industry. Biomass markets are critical to the long term management of NH's forest land.
- Mr. McKenney provided data on supervised harvests that his company has overseen. The data illustrates that for every one thousand board feet of high value saw logs harvested under his company's supervision, about 9 tons of pulp and biomass were also removed.
- Good forestry needs strong markets for pulpwood and biomass to effectively remove unacceptable growing stock. Cash flow from a responsible harvest when strong biomass markets exist is significant.

Robert Olson

- Mr. Olson represents six biomass plants in Bridgewater, Alexandria, Whitefield, Springfield, Bethlehem, and Tamworth.
- These plants produce 100 MWs in renewable generation. These plants have 400+ jobs.
- SB 129 supports the biomass industry by adjusting the ACP from \$45 dollars to \$55 dollars. In existing statute, that ACP should drop to \$33.
- Assuming an adequately supply and demand, RECs trading at \$55 offer revenue for these plants. Previously, NH plants were selling RECs to Connecticut, which had the RECs at \$55.
- Placing the Class III ACP at parity with Connecticut will bring more options to NH plants and result in their continued operation.
- Connecticut cannot be relied upon anymore. Since 2014, Connecticut has looked into a REC phasedown, reducing the value of RECs for biomass plants. The only other place these biomass plants qualify is in the Class III market. There is also an oversupply of RECs in Connecticut, selling at \$25-\$27 dollars.
- If SB 129 does not pass, it risks the 400+ jobs and the 100 MW capacity. That diversity of fuel supply is best seen against the backdrop of New England being 49% dependent on natural gas.

Mike O'Leary

Plant Manager, Bridgewater Plant

- Bridgewater Plant is one of six plants affected by the NH Class III ACPs.
- The REC versus fuel cost: Fuel alone to make a biomass plant exist is near \$40 dollars. Low fossil fuel prices brings down the price of chips, but those prices could run up.
- REC markets are dynamic. For every megawatt produced, the plant produces a REC. ACPs are a ceiling price for the REC. Bridgewater Plant has never sold RECs at the ceiling price.
- With the low cost wholesale electricity prices, RECs have been sold at a low of \$17. In 2016, the facility lost over \$1 million dollars. They are looking for support in the passing of SB 129.
- Senator Avard said Connecticut is buying NH's RECs. SB 129 will allow NH to buy their own RECs. Senator Avard asked how that helps lower the prices to rate payers. Mr. Olson said that when RECs are purchased, the rate payers pay for those RECs. Referring to what Senator Bradley said, there is cost

component and a benefit component to SB 129. Senator Avard asked if it will drown out hydro power. Mr. Olson said no. Class III is for biomass and land fill methane plants existing before 2006. It does not affect any other type of renewable resource.

- Senator Bradley asked Mr. Olson to explain what the four classes are and the benefits for each class. Mr. Olson said the RPS contains a class system. It is important as it is the way the legislative policy enacts the diversity requirement.
 - Class I: Represents new systems built after the year 2006. These would be new biomass plants, such as the new biomass plant in Berlin. A hypothetical windfarm created after 2006 would be in Class I.
 - Class II: Just for solar. Senator Feltes's provisions aim at Class II and granting some equities there.
 - Class III: RPS promotes energy diversity and jobs in NH. Class III refers to existing facilities. If there is an existing biomass facility that produces 25 MWs or less and was created before 2006, it is in Class III. Land fill gas methane is also in that class. These plants must also meet air emission requirements.
 - Class IV: Small hydro plants that produce 5 MWs or less with environmental requirements on them.
- Senator Fuller Clark said that when the RPS was created, it was meant to address available resources in NH. She was looking for Mr. Olson to speak to that. Mr. Olson said it goes back to the class system. These classes seek to diversify the use of energy sources in NH. It also seeks to create new energy sources and preserve jobs in the state. More classes were created with different levels of economic activity.

Kim Frase

Owner, Frase Electric, LLC

- Mr. Frase is a small electrical contractor with 11 employees. He installs solar arrays and it has become 2/3 of his business.
- Mr. Frase spoke in regards to the introduced amendment removing the cap on the residential solar rebate. The cap created a burden in terms of paperwork. It requires a second trip back and adds to installation costs for the resident. To remain competitive, he wants to keep costs down.
- The other area it affects is group net metering. When group net metering occurs, it will always run beyond the 10KW limit. This doubles expenses.
- Over 20% of his customers are over 10KWs. For 20% of his business, he is doubling his paperwork. He sees no advantage in keeping the cap. It should have no real impact on the REF.

Kate Epsen

Executive Director, NH Sustainable Energy Association

- Reinforced testimony made by Mr. Frase on the amendment.
- In regards to Section VII, every state around has been doing this type of system and it is manageable. As a pilot program, it is very straightforward.

- Should bill credit sharing not be allowed, there is a tax burden in additional cost to low-moderate income residential customers.
- The credit score issue does not preclude any voluntary financing. Some people finance solar like financing cars.
- Expressed a desire to keep the language in Section I, line 6-8. There is utility data that supports that the peak load is reduced by the use of solar power.
- Ms. Epsen expressed a willingness to work on any of these topics with the affected parties.

Kim Quirk

Owner, Energy Emporium

- Their business is 80% in solar installations.
- As a business owner, one of the problems is helping lower-moderate income residential customers. The involvement of the utility in providing credits to those who should be getting the credit is a good idea. Ms. Quirk has experience in seeing landlords abusing the system in allocating the credits out.
- A pilot program can be done. Should it be successful, it can be rolled out more next year. It allows a wider group of people to access solar power.
- Reinforces Mr. Frazee's comments on Senator Bradley's amendment.

Matt Leahy

Public Policy Manager, Forest Society

- Provided written testimony.
- Represents a land trust that owns 55,000 acres of forestland in 185 reservations. As they treat these forests and accumulate low grade wood, there is significant value in supporting NH's biomass plants as a main market for that wood.
- Increasing the Class III REC values means those plants can remain economically viable. As they expand, they become more economically viable to the state.
- SB 129 is an important step towards insuring our forests continue to play a central role in the overall quality of life which has made NH so unique.

Dennis Labbe

NH Legal Assistance

- SB 129 addresses fundamental unfairness in NH energy markets.
- Lower-moderate income residential customers have to overcome massive market barriers to access benefits.
- Having bill credits handled by the utility companies is vital. Having group metering handled by the landlord creates conflict.
- The prohibition on credit scores is helpful to lower-moderate income residential customers. Many of them have poor credit, excluding them from benefits and does not relate to utility payment history.

Marla Herrick & Don Hardwick

Owner, Hopkinton Forestry & Land Clearing

Owner, D.H. Hardwick & Sons, Inc.

- Provided written testimony.
- Both businesses are under threat should biomass plants close.
- Both support SB 129 in supporting the biomass industry.

Summary of testimony presented in opposition:

Donna Gamache

Director of Government Affairs, Eversource Energy

- Eversource had concerns on Section VII of the bill. Eversource opposes the role of taking on group net metering accounts. What is done currently is a check is given to the group host and the group host distributes it. Eversource prefers that method.
- However, after speaking to Senator Feltes, there has been interest in studying the benefits in looking at an alternative credit method or a pilot program with one small park in a service territory.
- This is done in Eversource's sister company in Massachusetts. Problems have arisen with lower income customers. They are much more mobile. Managing who is active in the program and managing disputes is a burden on customer service reps.

Mark Lambert

Director of Government Affairs, Unitil

- Opposed to Section I in the analysis, requiring a portion of the funds in the renewable energy fund to benefit low-moderate residential customers.
- Unitil has worked with the PUC and other low income advocate groups to provide discounts.
- Section IV says 300% of the federal guidelines will be used to help low-moderate income customer. This differs from what is used by other utilities in how they manage the low income discount in their systems. Tiered discounts are applied by federal poverty guidelines.
- At 300%, there is an inconsistency in what those customers can qualify for. For example, they can take part in the group net metering, but cannot qualify for individual discounts. That has taken place in the Massachusetts territory.
- Senator Avarad asked if Unitil has any suggestions about how to address that problem. Mr. Lambert deferred to asking that question to Senator Feltes. There is a difference, but Mr. Lambert was not sure of the difference.
- Unitil is opposed to Section VII, lines 4-6, which makes Unitil provide credits on the electric bill directly to a group member rather than a group host.
 - This requires Unitil to make investments in the billing system to do this.
 - This is allowed in other service territories, but requires additional staff to manage it and bill system investments.
 - The onus is on the utility to manage the volatility of the allocations and the management of the group, which changes quite often.
 - The cost of this would be passed on to the distribution cost to other customers.

- The system benefit charge is more transparent and contains funding for low-income discounts.
- Disagrees with Section I, lines 5-8. It speaks of the diversification of solar and wood products that reduce NH's peak demand. Unitil has done a study for customers that shows the peak demand for Unitil customers occurs when solar generation is not generating, which is from 5:00pm to 7:00pm. Suggests line 6-8 be removed from the purpose statement.
- Senator Feltes said Ms. Gamache introduces the idea of a pilot program and if Unitil would be opposed to one project per year in a service territory. Mr. Lambert said he would not be opposed to it in order to evaluate the benefits.

Michael Licata

Director of Government Affairs, Liberty Utilities

- Opposition focuses on Section VII of SB 129. While Liberty Utilities is sympathetic to helping out the local community, the cost of administration and the risk it places on the utility is burdensome in helping low-moderate income residential customers.
 - Currently, a utility is there be a dispute between the host and the tenant, the utility is not involved in that. Under SB 129, the utility is now in the middle of the dispute. The attorneys have to represent them in disputes.
 - Automating credits to these customers requires a significant upgrade to their billing system.
 - Furthermore, SB 129 does not spell out a qualification or verification for lower to moderate income rate payers. It would be cumbersome for the utility to keep track of that as people opt in and out of the system.
- Senator Bradley asked if Liberty Utilities would be open to a pilot program. Mr. Licata said his company would need to see language for that before commenting on it. If Liberty Utilities is asked to involve themselves in a private dispute, Liberty Utilities could not support that.
- Senator Feltes said the pilot program would be one program for one project per year. Mr. Lambert saw no problem with it. Senator Feltes asked if Liberty Utilities would take part. Mr. Licata said he would need to see language.
- Senator Fuller Clark said there are other companies in other states that have implemented similar structures that break out customers into different economic levels. Those companies have the technologies to do it. Senator Fuller Clark asked if Mr. Licata knew if there was a way the utilities in NH could benefit from that. Mr. Licata said he does not have any information as to whether Liberty Utilities breaks their customers down into different economic classes. Mr. Licata then said Eversource and Unitil do that type of service in Massachusetts and there has been concern with their implementation. Mr. Licata was not willing to comment further.

Neutral Information Presented:

Karen Cramton

Director of Sustainable Energy Provision, PUC

- Did present written testimony – provided data of the amendment to Class I Thermal and Class II Annual Obligations, as well as current RPS obligations. She also provided data for the amendment to the Class III ACP Rate.
- Present to answer any questions.
- The amendment that eliminates the 10 KW cap will ease the administrative burden at PUC. It will not make any changes to the REF.
- Amendment will ease the administrative burden at PUC. This will not change the REF.
- Ms. Cramton expressed a willingness to work on the low income program, should SB 129 pass. There are other states that have implemented similar programs and the PUC is willing to reach out and find what works.

Future Action: Pending.

GJR

Date Hearing Report completed: February 14, 2017

Speakers

Senate Energy & Natural Resources Committee

SIGN-IN SHEET

Date: 02/14/2017 Time: 9:45 a.m.

SB 129 AN ACT requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass.

Name/Representing (please print neatly)

Name/Representing	Support	Oppose	Speaking?	Yes	No
Senator Bob Guda SD#2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mick Maunsey (McDevitt Trucks) S	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Speaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sen Ruth Ward SD#8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sen. Van Fennis SD#24	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sen Fuller Clark SD21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sen Harold French SD#7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sen John Reagan S#17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sen Kevin Avard SD 12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Drew FERTES SD 15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CHARLIE NIEBLING NEW ENGLAND WOOD PELLETS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ROBERT BERTI FORECO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EDWARD G. WITT SR. MADISON LUMBER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Speaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dennis McKenney New England Forestry Consult.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Robert OLSON	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Jasen Stok NH Timberland Owners Assoc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Charles Moreno forester	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ben Crowell Durgin & Crowell Lumber	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
KIMFRASE FRASE ELECTRIC LLC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Speaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MICHAEL LICATA LIBERTY UTILITIES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Speaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Senate Energy & Natural Resources Committee

SIGN-IN SHEET

Date: 02/14/2017 Time: 9:45 a.m.

SB 129 AN ACT requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass.

Name/Representing (please print neatly)

Name/Representing	Support	Oppose	Speaking?	Yes	No
TOM CHRISFENTON SELF	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Michael Fitzgerald NHDES	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Don Hardwick	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
EVAN ORENHAM	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dennis Labbe MA Legal Assistance	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
HUNTER CARBEE	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
ROBERT LUSSEER	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
J.J. Smith NH Public Health Ass'n	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Marlo Terricic Hopkinton Forestry	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Marge Shepardson Cheshire 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Patricia Martin self	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
ROB WARNER LEAGUE OF CONSERVATION VOTERS	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Karen Cramton NHPUC	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
MARK LAMBERT UNITIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Donna Gamache Eversource	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Testimony



MADISON LUMBER MILL
PO BOX 224
WEST OSSIPPEE NH 03890

February 14, 2017

Senate Energy and Natural Resources Committee
New Hampshire State House,
North Main St.
Concord, NH 03301

Dear Chairman Avard and Committee Members:

I am the Log Procurement Forester for the Madison Lumber Mill, Inc. (MLM), located in Madison, NH. MLM is a White Pine sawmill with over 50 employees. Some additional statistics for MLM are as follows:

- Purchase sawlogs from all counties in New Hampshire
- Annual lumber production of 18 million board feet
- Annual payroll of \$3.5 million dollars
- 55 Log suppliers
- In 2016 paid loggers 6.5 million dollars for sawlogs delivered to the mill
- Over 64 million dollars in lumber and wood sales in 2016

I am also a licensed professional forester with degrees in forest and wildlife management. I have been practicing forestry in New Hampshire for over 30 years having worked with private landowners and industrial landowners. I am testifying today in support of SB 129 and its' importance to Madison Lumber Mill, New Hampshire's economy and New Hampshire's forest products industry.

Over the past two years New Hampshire's forest products industry has seen some detrimental, structural changes in our low grade wood markets. Over 4 million tons of usage has closed since the beginning of 2014 in Maine. Low wholesale electrical prices, primarily due to natural gas, have strained New Hampshire's biomass plants ability to run profitably. Recent changes in Massachusetts Renewable Energy Credit (REC) program and pending changes in Connecticut's REC program essentially doom our independent biomass power producer's ability to operate. These changes are not related to business cycles but are long term trends that will continue without legislative intervention.

New Hampshire's forest products industry has relied heavily on New Hampshire biomass plants and Maine pulp mills as markets for its low grade material. The recent changes in Maine have essentially eliminated it as a significant consumer of low grade wood from New Hampshire, especially softwood species. This situation has placed an even greater reliance on New Hampshire's biomass plants. If NH's biomass plants were to close, or reduce operating hours, much of New Hampshire's forest products industry would disappear in a short period of time.

The changes to New Hampshire's Renewable Portfolio Standard (RPS) proposed by SB129 are critical to the future of the forest products industry in New Hampshire and NH's economy. As currently structured, the RPS is not effectively addressing the needs of New Hampshire's wood biomass industry. New Hampshire's forests are naturally dominated by low grade trees and parts of trees. NH's biomass market allows landowners to practice exemplary forest management by removing diseased, rotten, poor quality trees that would otherwise not be possible. Biomass harvesting produces healthy forests AND other forest products such as sawlogs, pulpwood and firewood. Our industry is dependent on all of the markets being available and the ability to remove and economically market low grade wood. Without biomass, much of this harvesting would not occur and other sectors of the industry would disappear.

With the evaporation of low grade markets in Maine, many of New Hampshire's sawmills, including Madison Lumber, have also become heavily dependent on our biomass plants to sell our residual chips. Sawmills do not waste any portion of the logs that we saw. For every 1,000 board feet of lumber sawn, a ton of chips is produced from slabs and board ends (taking the log from round to square). Traditionally, these chips went to make paper in Maine. Currently only a small fraction of New Hampshire paper grade chips from sawmills go to Maine. Most of this material is now being consumed by our biomass plants. If sawmills can't move their residual chips, they will shut down. Stock piling or burning chips is not an option, not to mention the loss of revenue.

SB129 seeks to amend New Hampshire's RPS language so that we preserve the continued operation of our biomass plants. Without the successful passage of this bill we could very well see the forest products industry collapse in New Hampshire. In the over 30 years that I have been in this industry, I have never seen our industry brought to the brink of collapse, but I can assure you, we are there now!

The loss of the biomass markets will deal a devastating blow to the entire forest products industry, including sawmills, landowners, loggers, and firewood producers. I would like to ask you to support SB129 and the economic activity that it will ensure into the future. Add in all of the other benefits including: healthy forests, improved forest and wildlife management, maintaining open space, energy independence, clean energy, etc., and it seems that the RPS program is worth supporting and ensuring that it continues into the future. SB 129 will correct issues with the current RPS that do not address the needs of the biomass power plants. I am hopeful that you will support this bill, the forest products industry and our way of life! If you have any questions please call me at 603-651-9912. Thank you for your time.

Sincerely,

Edward G. Witt, Sr.

Edward G. Witt, Sr.
Log Procurement Forester



- SELECTIVE CUTTING
- FOREST MANAGEMENT
- COMPLETE SITE WORK
- FIELD & PASTURE DEVELOPMENT
- PURCHASING OF STANDING TIMBER
- CHIPPING & STUMPING

February 14, 2017

Chair & Members of the Committee co-sponsoring Senate Bill 129

My husband Dave and I are owners of Hopkinton Forestry and Land Clearing, located at 88 State Shed Road in Henniker, NH.

We have been Business owners for 26 years.

Our company has 28 full time employees who are paid approximately \$1.3 million yearly and they receive benefits including vacation pay and health insurance.

The existence of our Business is threatened by biomass plants not operating. If we do not have a market for low grade material then our sales would be cut in half. The entire forest product industry could be compromised with many jobs lost.

The trickle-down effect is evident. For example, our yearly equipment repairs were over \$600,000 of which 90% are local vendors. Vendors such as: Sanel; Sullivan Tire, Concord; Milton Cat, Londonderry; Nortrax, Concord; TST, Merrimack; Eastern NE Hydraulics, Bedford; McDevitt, Manchester; BB Chain, Milford; NH Peterbilt, Bow. Our company alone paid landowners in stumpage value nearly \$1,700,000 in 2016.

Our business and other loggers in this State pay 10% in timber taxes to towns where logs are cut. Some recent Towns include: New Ipswich, Rindge, Keene, Richmond, Mason & Hinsdale. In these areas alone we've moved about 600,000 BF of log material of which 75% is biomass.

Fuel taxes paid in 2016 were over \$75,000 of which most goes to the road structure.

Our business paid nearly \$35,000 in real estate taxes to the Town of Henniker and over \$36,000 for registration costs.

Our numbers are just a small part of this puzzle. There are over 30 logging companies in Southern NH alone.

If we do not have a market for low grade material then our sales would be reduced by almost ½ forcing us to let more than half our staff go. This would take trucks off the road and cut monies paid to the

State and Town in timber taxes, fuel taxes, registration and real estate taxes. Local stores and restaurants would suffer as well which would create more job loss.

The entire forest product industry could be compromised. Not only would the forest product industry suffer, but aesthetic value of the forest is compromised as well. The health of the forest is maintained by making sure undergrowth and low quality wood is removed allowing a weeding of the forest.

For instance, NH's tourism and recreation, some of NH largest economic activities would suffer. Logging roads attribute to the trail system; cross country skiing, hiking and snowmobiling and other recreation throughout NH forests.

With an already almost nonexistent new construction market, costs for potential construction would increase as there would be no market for slash or debris (tops of trees) forcing the homeowner to bury or burn the debris.

We need your help to save jobs, provide clean renewable energy and help maintain economic activities in NH.

Thank you the opportunity to testify before your committee.

Are there any questions?

Thank you.

Jasen Stock

From: Shelagh Connelly <shelagh.connelly@rmirecycles.com>
Sent: Monday, February 13, 2017 4:09 PM
To: Kevinavard@state.nh.us; jeb.bradley@leg.state.nh.us; Dan.Innis@leg.state.nh.us; martha.fullerclark@leg.state.nh.us; Dan.Feltes@leg.state.nh.us
Subject: SB 129 - Support NH Biomass
Attachments: SB 129 - OTP - Keep RPS Alive in NH - 2017 - From RMI.pdf

Senator Kevin Avard, Chairman
Senate Energy and Natural Resources Committee
New Hampshire Statehouse, Room 103
Concord, NH 03301

I cannot be at the Hearing on 2/14/17, so I am attaching my testimony to this email.

Please continue in your efforts to get SB 129 passed in this legislature. Support and stabilization of the biomass industry is important for the forest industry, tourism, and the many support services that are driving the economy like mechanics, truck and tires sales, equipment dealers, foresters, and sawmills.

Keeping these biomass plants alive is especially important to me and my company because we provide service to these facilities. Yes, in addition to generating local green electricity, these power plants have another by-product and we recycle that material: **wood ash**.

Each of the biomass plants generate 3000-4000 tons of wood ash annually, and my company recycles this product as a commercial fertilizer. NH farmers have benefitted by having access to wood ash for the high value potassium and the liming abilities of the wood ash used to improve soils and crop yields.

We employ 30 people with year-round jobs and benefits (health&dental insurance, sick time, vacation, disability, and IRA) and we run 8 tractor-trailer trucks based in Holderness, NH. We are committed to the highest environmental standards and we want to keep doing good work for NH farms.

It just makes sense to have wood-fired power here in NH. And the added benefit of wood ash fertilizer makes it even better!

Thank you for serving in this legislature.

Sincerely,
Shelagh

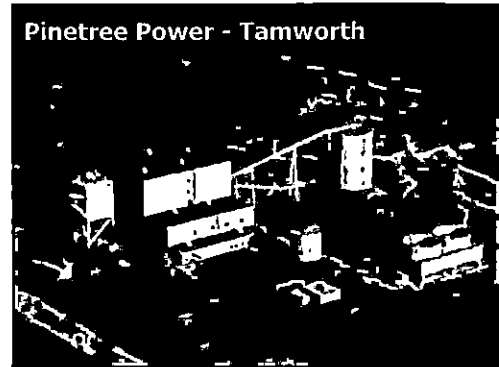
Please find a 1-page testimony attached.

Shelagh Connelly
President
Resource Management, Inc.
1171 NH RT 175
Holderness, NH 03245
(603) 536-8900 office

February 14, 2017

To the Senate Energy and Natural Resources Committee:
OTP SB 129 - Keep RPS alive in NH

There are six wood-fired power plants (biomass plants) in New Hampshire that are in danger of being shut down. They are located in Alexandria, Bethlehem, Bridgewater, Springfield, Tamworth and Whitefield. These plants burn wood chips and produce green, local electricity. Another thing they produce is **wood ash**, which comes from the combustion of wood chips – just like your home wood stove produces wood ash after burning wood. This wood ash “by-product” is a valuable fertilizer for farmers throughout New Hampshire.



It may not seem like a big deal to most people, but the wood ash from these biomass plants is a very important **natural fertilizer produced locally** and used by hundreds of New Hampshire farmers annually. Farms have come to rely on the potassium and lime value from wood ash as a cornerstone to soil fertility and crop yields.



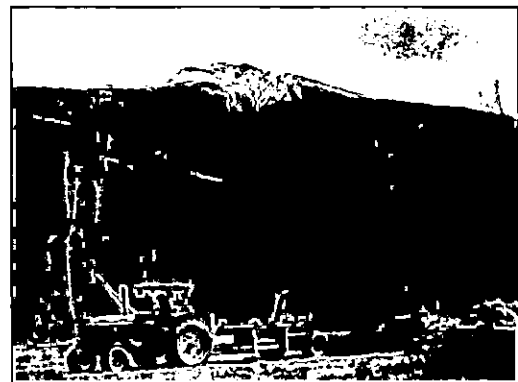
From loggers and foresters, to haulers and plant operators, these power plants directly employ over 500 people throughout our state and contribute \$100+ million dollars to the NH economy EVERY year. The additional indirect benefits go far beyond that – the tax dollars paid to towns, groceries and fuel purchased, community involvement and timberland management. Most importantly to me though, is the *wood ash fertilizer* that will no longer be available to farmers if these biomass plants shut down.

Why are these biomass power plants in danger of being shut down? 25 years ago the NH legislature “went green” and passed legislation to encourage the development of the biomass industry – this was a good decision for consumers, the timber and trucking industries, and farmers. Since then NH passed the **Renewable Portfolio Standard (RPS)** law which enables biomass plants to sell renewable energy certificates (RECs) to cover their operating costs and remain viable. Recent changes in wholesale electricity markets coupled with changes in neighboring state RPS laws is putting these plants at risk of closure. **Without a strong New Hampshire RPS, these power plants will have to shut down. Senate Bill 129 is a New Hampshire solution that will support New Hampshire businesses.**

Closing these power plants would be terrible for New Hampshire. Hopefully this legislature will continue to champion jobs, especially in the North Country, by supporting Senate Bill 129. Elected officials must focus attention on ways to keep these biomass plants operating and producing clean, local power for New Hampshire, and the added benefit of clean wood ash fertilizer for New Hampshire farmers.

Shelagh Connelly, President
Resource Management, Inc. (RMI)

*RMI recycles the wood ash for four of these power plants



(603) 536-8998 fax

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melagh.connelly@RMirecycles.com

www.RMirecycles.com

Down to Earth Recycling Solutions



February 14, 2017

Senator Kevin Avar, Chairman
Senate Energy and Natural Resources Committee
New Hampshire Statehouse, Room 103
Concord, NH 03301

RE: Senate Bill 129, *AN ACT requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass*

Dear Chairman Avar and members of the Committee:

The New Hampshire Timberland Owners Association (NHTOA) would like to thank you for sponsoring Senate Bill 129 and request you recommend its passage to the full Senate. Founded in 1911, the NHTOA represents forest landowners and the forest products industry in New Hampshire. This sector of New Hampshire's economy represents the third-largest sector of manufacturing in the state. The forest products industry in New Hampshire employs more than 7,700 people directly, and contributes \$1.394 billion dollars to the state's economy.

The NHTOA supports the biomass provisions in this bill as they will help insure the continued operations of the state's six independent biomass power plants. Losing these biomass power plants, and the low-grade timber (trees unsuitable for lumber) markets they provide, will negatively impact hundreds of jobs and disrupt New Hampshire's entire forest products industry. These power plants are vital to our membership's ability to practice sustainable forest management and retain land as forests. The relationship of these power plants with the rest of the forest products industry (e.g. sawmills), means their survival is critical to the economic health of the state's forest products industry.

Forest management

These power plants provide a key market for low-grade timber. According to the U.S. Forest Service's Forest Inventory Analysis (FIA) data, almost two-thirds of the standing timber in New Hampshire is considered low-grade. Without markets for low-grade timber, landowners and land managers are unable to economically improve forest health and vigor, and in many instances entire woodlots go unmanaged; weeding and thinning of diseased and malformed timber does not occur, weakening these woodlots environmentally and economically. Worse, timber lots are sometimes "high-graded," where the logger "cuts the best and leaves the rest," resulting in genetically inferior timber stands with poor growing stock.

54 PORTSMOUTH ST., CONCORD, NH 03301
603-224-9699 • FAX 603-225-5898 • WWW.NHTOA.ORG

Growing Leadership for New Hampshire's Forests

In addition to healthier and more vigorous woodlots, the weeding and thinning biomass markets enable also improves the quality and economic value of the standing timber. This benefits the entire timber supply chain, landowner, forester, logger and sawmills.

Economic impact

I have attached data showing that, annually, New Hampshire receives more than \$94 million in economic activity from New Hampshire's six independent biomass power plants. This includes the economic activity (payroll, taxes paid, etc.) from the power plants directly and the economic activity generated within the logging community supplying the fuel. This data comes from three sources: direct interviews with the biomass power plants, the N.H. Department of Environmental Services (fuel consumption figures), and a logging economic analysis conducted by Plymouth State University's Center for Rural Partnerships in 2014 (attached).

Because low-grade timber markets are connected to all timber markets and specifically to sawmills, the loss of the state's biomass power plants will also have a negative impact on these businesses. According to a 2016 Plymouth State University study on the economic contribution of New Hampshire's sawmills, this industry directly employs 778 individuals with an annual payroll of \$40.9 million, and indirectly employs another 1,194 individuals (vendors, suppliers, etc.) with an annual payroll of \$62.9 million. When low-grade timber markets diminish, New Hampshire's sawmill industry suffers for two reasons: log supply and mill waste disposal. As mentioned above, when low-grade timber markets are devalued or disappear, entire woodlots do not see any management. With no timber, including sawlogs, being harvested from these woodlots, sawmills have difficulty procuring sawlogs to mill. Secondly, when low-grade wood markets shrink, mills are unable to find homes for their chipped slabs and sawdust. Currently, we are seeing some mills already stockpiling chips and sawdust, because their delivery quotas to biomass power plants or the few remaining pulp/paper mills have been reduced.


This economic impact is statewide. According to the New Hampshire Department of Revenue Administration's (NH DRA) timber tax data, during the 2014/2015 tax year 1,349,018 tons of biomass was harvested in 209 towns in New Hampshire. Volume from these harvests went to biomass power plants in the region, including the six independent biomass power plants. The largest volumes coming from the following towns;

- Henniker (Merrimack County) -- 39,073 tons
- Sanbornton (Belknap County) – 33,157 tons
- Stratford (Coos County) – 29,279 tons
- Gilmanton (Belknap County) – 27,031 tons
- Milan (Coos County) – 25,979 tons
- Bethlehem (Grafton County) – 25,736 tons
- Weare (Hillsborough County) – 24,616 tons
- Lyndeborough (Hillsborough County) – 23,709 tons
- Epsom (Merrimack County) – 23,610 tons
- Danbury (Merrimack County) – 20,745 tons

According to the Plymouth State University's Center for Rural Partnerships logging economic analysis, every 1,000 tons of timber harvested in New Hampshire supports 0.3 timber harvesting jobs, and 0.1 indirect jobs (e.g. foresters, truckers, mechanics, etc.). Using NH DRA's 2014/2015 timber tax data, statewide, biomass harvesting directly supports 404 timber harvesting jobs and an additional 134 indirect jobs. To illustrate how these jobs occur at a local level, only using the top ten biomass producing towns, in 2014/2015 biomass harvesting supported 81.8 timber harvesting and 27.4 indirect jobs.

Again, the NHTOA thanks you for co-sponsoring Senate Bill 129 and ask that you vote Ought To Pass (OTP) on this important piece of legislation.

Thank you,



Jasen A. Stock
Executive Director

Attach

CC: N.H. Senate Energy and Natural Resources Committee

Biomass Statewide Annual Economic Benefits

6 Independent Biomass Power Plants

1/28/2015

Local Economic Activity Current Statewide Biomass Industry		
	Fuel (wood chip) Purchases***	Labor, O/M - Includes state and local taxes and state fees
Biomass**		
Power Plants	\$33,225,528	\$22,574,700
biomass producers*		\$38,405,942
Total	\$33,225,528	\$60,980,642

Total annual economic activity and taxes/fees collected

\$94,206,170

* Based on Plymouth State University 2014 logging economic impact study and NH Department of Environmental Services fuel volumes.

** Data is conservative as it does not reflect all expenditures from all power plants in the category.

*** Fuel (wood chip) volumes are from NH Department of Environmental Services 2015 data.



February 14, 2017

54 Portsmouth Street
Concord, NH 03301

Tel. 603.224.9945

Fax 603.228.0423

info@forestsociety.org

www.forestsociety.org

The Honorable Kevin Avard, Chairman
Senate Energy and Natural Resources Committee
New Hampshire Statehouse, Room 103
Concord, NH 03301

Dear Senator Avard:

Thank you for this opportunity to register the Forest Society's support for SB 129. As you know, we are a 116 year old land trust whose mission is to protect the state's most important landscapes while promoting the wise use of its renewable natural resources. It is the second part of that mission statement which most directly connects us to New Hampshire's forest-based economy. We own 55,000 acres of forestland in 185 reservations. About 38,000 of these acres are in active forest management. Each year, we host an average of 8 to 12 timber harvesting operations. For our fiscal year ending on April 30, 2016, we treated about 400 of those acres, harvesting 1.4 million board feet of saw logs and 15,000 tons of low grade wood. Given those numbers and the fact that the state's biomass plants serve as a main market for this wood, SPNHF strongly supports efforts to strengthen the Renewable Energy Act and the renewable portfolio standards it creates.

We believe the changes SB 129 proposes will benefit the state's biomass power plants. Increasing the Class III REC values means these plants can remain economically viable. As they continue, and hopefully expand, their operations, the markets which loggers, landowners, and wood processors rely on for their low-grade timber are sustained. When we maintain these markets, we strengthen the economic contributions the wood industry makes to our state.

Just as importantly, the RPS reinforces our ability to protect our state's iconic forest landscapes. Careful timber harvesting can result in the creation of younger forests, thereby increasing the age and size class diversity of our landscape. It is also often used as a method of meeting other goals for management including the creation of wildlife habitats, maintenance of plant biodiversity, and promotion of recreational opportunities. However, this proper stewardship of the land comes with a cost to the landowner. The RPS establishes both an incentive and a way for landowners to care for and maintain these lands.

In closing, the RPS law is critical to the health of NH forests and the wood to energy economy that NH has provided national leadership in building and sustaining. The passage of SB 129 is an important step towards insuring our forests continue to play a central role in the overall quality of life which has made New Hampshire so unique.

Sincerely,

Matt Leahy, Public Policy Manager
Society for the Protection of New Hampshire Forests

NEW HAMPSHIRE FARM BUREAU FEDERATION

295 Sheep Davis Road • Concord, New Hampshire 03301-5747 • (603) 224-1934 • Fax (603) 228-8432 • www.nhfarmbureau.org

February 14, 2017

Senate Energy and Natural Resources Committee
C/o The Honorable Kevin Avar, Chairman
State House, Room 103
Concord, NH 03301

Re: NH Farm Bureau Support for SB 129, requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass.

Dear Mr. Chairman and Members of the Committee:

We support the modifications contained in the bill to the RPS renewable energy Class III, stabilizing the state's wood fired power plants. The modifications are very much in tune with the stated purposes of the RPS of maintaining a diversified energy mix in NH, promoting locally sourced renewable fuels, keeping energy dollars in the local economy, and reducing our dependence on fossil fuels.

The plants provide **landowners** a market for low-grade timber – which is chipped and used to fuel the plants - and incentive to practice sustainable forest management, maintaining forest health and land in working forest. Forest management practices at risk include the management of invasive species & forest pest and wildlife habitat enhancement. Sales of wood chips “pays the freight” for these management practices to take place. Others will speak to the devastating effect loss of the state's wood fired plants would have on the state's forest economy and rural economy as a whole.

A particular benefit of the wood fired power plants for NH farmers and the state's farmland is the residual wood ash produced. It provides a local and economical liming agent for our cropland. Wood ash is a beneficial and necessary soil amendment used primarily as a source of potassium and a fast acting liming agent. The alternative, agricultural lime (from limestone), must be imported into the state and is more expensive, primarily due to the higher transportation costs.

We urge the Committee recommend *SB 129* as **Ought to Pass** and thank you for your time and consideration,

Sincerely,



Robert Johnson, II, Policy Director

New Hampshire Farm Bureau (NHFB) is a non-profit federation, established in 1916, of New Hampshire's 10 county Farm Bureau organizations. NH Farm Bureau represents 3,000 member farm families statewide and is dedicated to advocating for and educating the public about agriculture. NHFB is a general farm organization where the members establish policy and direction through a member driven policy development process.

D.H. Hardwick & Sons, Inc.

301 Francestown Road, Bennington NH 03442

P.O. Box 430, Antrim NH 03440 * 603-588-6618 * info@dhhardwick.com

Senator Kevin Avard, Chairman
Senate Energy and Natural Resources Committee
Senate Bill 129

February 14, 2017

NH Clean Energy Jobs Act

For decades New Hampshire Biomass Plants have been offering solutions for low grade wood markets. Biomass Plants like Springfield Power and Bridgewater Power have become a mainstay in the forest industry. We have become fiercely reliant on these plants and need help in the fight to keep them viable. The "NH Clean Energy Jobs Act", as proposed will shed some light on our grave situation. Our hope is that this Bill will allow the continued operation of Biomass Plants here in NH.

My late husband started our logging firm in 1978, which has grown to employ 22 dedicated workers (down from our highest of 34 employees), a company which my four sons and I continue to manage. Our business is situated on 600 acres in Bennington NH. This property along with another 6500 acres we own here in NH is managed forestland. The majority of our timber harvesting is contracted with Private Landowners, Municipalities and even some State owned forests.

Our timber harvests have provided so much more than just stumpage payments. State and Town owned land in Pelham, Francestown, Weare, Hancock, and Keene are just a few locations of our hundreds of jobs in recent years that have contributed to the enhancement of recreation trails and wildlife habitat. We have conducted wildlife harvests on Audubon Society lands, which would not have been facilitated without chip markets. The timber yield taxes along with our countless other expenditures that derive from our operations would not be so bountiful if not for the ability to sell our low grade wood. In 2016 our annual payroll was \$1.6 million (not including our employee benefit packages), Stumpage Expense (standing timber payments) to landowners in 2016 was \$1.63 Million. Please note that a 10% timber yield tax on stumpage payments went to local towns (an approximate \$160,000 income for towns).

Low grade wood must be included in our harvest prescriptions to obtain healthy forests. We must have a good quota at these biomass plants in order to keep the other high grade saw logs flowing. Our company output of forest products (wood chips and saw logs) is approximately 100 loads per week. All production is immensely slowed if there are limitations on the low grade marketability. NH sawmills would be negatively impacted as well. With 41% of our annual production being Whole Tree Chips, it is obvious that we would be devastated without these biomass markets! Our annual income derived only from these wood chips is \$2.5 million a year. Our total income from timber sales (at \$ 6,012,000 annually) would likely be cut in half if there were no market for chips. Remember, that with the foreseeable reduction in ability to produce saw logs, it will have even more catastrophic affects. I beg to question, what would us loggers do with our then obsolete 1/2 million dollar chippers not to mention another few million dollars in equipment purchased for modern timber harvesting that is no longer relevant *if there are no low grade markets. Loggers would be forced to high grade all woodlots **leaving our state with no future forest industry** and forests full of poor quality wood that has no market! We need modern harvesting techniques and desperately need biomass plants to cultivate the use of sustainable forestry. We want to do the right thing for our future forests but need the support and encouragement of people like you. Biomass Energy Plants have become our life blood. New Hampshire's forests and the NH economy both depend on their continued operation. When you see a newly harvested forest or the scores of logging trucks on our highways, I hope you will truly reflect on our plight and the jobs at risk. God Bless you for co-sponsoring Senate Bill 129!



Thank You, "The Hardwick Family"



New Hampshire is the second most forested state in our nation.

We have the responsibility and ample supply of trees to utilize this renewable resource for the betterment of all.

NEW ENGLAND FORESTRY CONSULTANTS, INC.

Dennis D. McKenney & Daniel D. Reed
Consulting Foresters and Land Surveyor
569 North Bennington Road
Bennington, New Hampshire 03442-4505

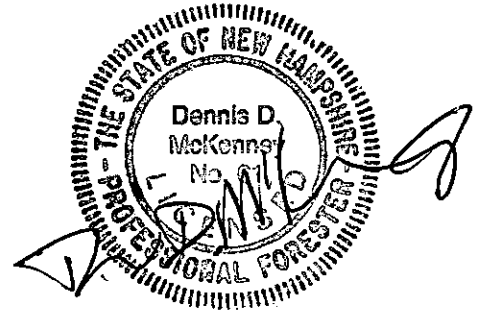
Telephone (603) 588-2638 voice and fax E-mail: dennis_mckenney@comcast.net, dreed@cforesters.com
Internet: www.cforesters.com

Friday, February 10, 2017

To: Senator Kevin Avard, Chair
Senate Energy and Natural Resources Committee

RE: testimony in support of Senate Bill 129

From: Dennis D. McKenney, LPF 61—Bennington, NH



My testimony is specifically in strong support of our state's native biomass industry and its importance to timberland owners like myself, land managers and the forest products industry. Here is some data derived from my company's work on predominantly non-industrial private forest land in New Hampshire and largely south of the White Mountains.

NEFCo Supervised Harvests, NH only					average tons/MBF ¹
	Product				
Year	Sawlogs, BF	Cords	Tons	Value	
2016	11,695,000	5,990	97,234	\$2,633,635.00	852
2015	12,524,000	6,736	125,205	\$3,031,448.00	1021
2014	13,066,000	12,061	97,548	\$2,968,780.00	784
3 yr total	37,285,000	24,787	319,987	\$8,633,863.00	886

Biomass markets are critical to the long term management of our forest land. They enable more intensive silviculture and enhance wildlife habitat while adding modest revenue to the owner and additional timber tax revenue to the municipality where the timber is harvested. This data shows that for every one thousand board feet of high value sawlogs harvested under our supervision about 9 tons of pulp and biomass were also removed. US Forest Service inventory data show that NH's forests are overstocked and much of this inventory is 'unacceptable growing stock.'

Good forestry needs strong markets for pulpwood and biomass to effectively remove this 'unacceptable growing stock', a point I regularly emphasize when writing forest management plans.

More specifically, here are several examples from Mason, NH and other tracts in Hillsborough County. These are privately owned properties under long term management, some for as long as 50 years.

Private landowner in Mason, NH (a 50 yr NEFCo client)					average	% of value from		
Year	Sawlogs, BF	Cords	Tons	Value	tons/MBF ¹	pulp	biomass	non-sawtimber
2017	biomass sale under contract							
2013	297,215	106	4,189	\$ 73,889	14.24	1%	17%	18%
2011	181,365	61	3,429	\$ 40,668	19.04	1%	26%	27%
total	478,580	167	7,618	\$ 114,557	16.64	1%	22%	23%
other private tracts in Hillsborough County, NH					tons/MBF ¹	pulp	biomass	non-sawtimber
2017-2	168,593		7,592	\$ 42,860	45.03	44%	6%	50%
2016	339,985	46	2,308	\$ 88,219	6.84	2%	7%	9%
2016	132,050		6,013	\$ 38,696	45.54	46%	5%	51%

tons/cord converted at 2.5tons/cord; 2017-2 sale is ongoing

It is readily apparent from my Mason example that the cash flow from a responsible harvest when strong biomass markets exist is significant. Further, these markets support the sawmill industry in their management of mill waste and other byproducts.

I am happy to entertain questions or supplement this information upon request. I trust this data is helpful to your committee since it readily demonstrates the value of our biomass market to non-industrial private landowners.

Thank you for your service to the citizens of our State.

High Ridge Tree Farm

1999 New Hampshire Outstanding Tree Farmers

Tom & Ginny Chrisenton PO Box 121, Lyndeborough, NH 03082 (603) 554-7554

February 13, 2017

Senator Kevin Avard, Chairman
Senate Energy and Natural Resources Committee
New Hampshire Statehouse, Room 103
Concord, NH 03301

Dear Senator Avard,

I am writing you in support of SB129 now before your committee.

As a tree farmer I feel that I am well qualified to give the basis for my support.

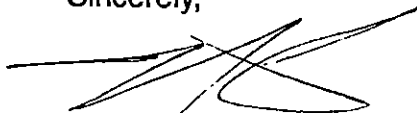
Some of the reasons for having a market for low grade wood are employment throughout the economy, benefits to NH's forest in fire protection, tourism, the ability for forest owners to have a market for their forest products and to keep their forest as forest and not development. We have created 45 acres of openings scattered throughout our tree farm which add to the diversity of wildlife and add to the enjoyment of the hikers that come daily.

I feel that it is very important to support NH's home grown energy supply in that it keeps and creates jobs for NH's people, not places like the middle east or other far off places. Having a place locally for this low grade wood helps greatly to support the forest products industry which is one of the oldest and one of the largest sources of jobs in NH.

Since our forest ownership, starting in 1973, many 1000s of tons of low grade wood went to NH's power plants and firewood for NH homes from our tree farm. The source of this low grade wood came from natural storm damage plus the removal of poor quality trees through weeding and thinning. By being able to remove this wood, the forest health is improved thereby increasing the quality of the remaining forest thereby creating these multiple benefits.

Thank you for your consideration and attention on this matter and feel free to contact me at any time.

Sincerely,



Tom Chrisenton

CC. Committee members



Granite State Division SOCIETY OF AMERICAN FORESTERS

Representing the forestry profession in New Hampshire
54 Portsmouth Street Concord, NH 03301

POSITION STATEMENT
Senate Bill 129

Summary

The Granite State Division of the Society of American Foresters (GSD-SAF) is comprised of over 195 practicing professional foresters in the state of New Hampshire. We are part of a national scientific and educational association representing the forestry profession in the State of New Hampshire. In such capacity, we have been instructed by our membership to oppose the repeal of the New Hampshire Renewable Portfolio Standard Law (RPS) as proposed in House Bill 225, and its potential impacts on the forest resources and forest industry in the State of New Hampshire. We have also been directed by our membership to actively support the passage of Senate Bill 129, which provides for the improved operation and cost effective incentive structure in New Hampshire's RPS.

Issue

Low-grade forest markets continue to decline across New England. Four million tons of low-grade markets have been lost in Maine due to the closure of five paper mills and two biomass plants in just the last two years. In New Hampshire, Concord Steam Corporation is slated to go off-line next April resulting in a loss of 50,000 tons of locally produced biomass in New Hampshire. During the "shoulder months" (spring and fall) wholesale electricity prices are running at extreme lows and the value of Renewable Energy Credits (RECs) that our New Hampshire independent biomass plants rely on to cover operating costs have also plummeted to new lows. If another pulp mill in New England downsizes or other biomass plants in New Hampshire are forced to close under New Hampshire's current RPS, the entire forest community throughout the Northeast Region would be severely impacted. Our greatest concern is for the impacts on New Hampshire's renewable electric and heat sources, namely biomass, and the New Hampshire forest products economy.

Background

Since the 1980's New Hampshire has been home to wood fired energy plants which produce power from local resources and provide jobs to residents of New Hampshire. At risk are six wood fired energy plants in the state producing 100 megawatts of renewable energy, as well as numerous other smaller combined heat and power facilities at hospitals, schools and municipalities and two district heating systems. We should be supporting the retention and expansion of these local, decentralized, renewable electricity and heat sources rather than importing fossil fuels.

New Hampshire's biomass energy plants currently support hundreds of New Hampshire jobs in the power plants and hundreds of jobs in the woods to supply those facilities with wood (foresters, loggers, and truckers), as well as supporting industries such as equipment, parts and

fuel sales and equipment repairs. If these power plants are displaced by imported power sources, there would be serious ramifications for the local forest products community that includes not only the professional foresters, loggers and truckers who supply the biomass energy plants, but also sawmills, landowners and others who depend on these plants to provide a market for byproducts from the forest. In addition, commercial and institutional wood pellet and wood chip heating facilities provided \$36 million in total economic benefit to NH in 2015. Operations at many of these facilities are supported in part by the ability to generate thermal RECs and provide revenues to reduce operating costs.

This impact to the forest products community is most troubling to our membership. The biomass electric and heat plants help underpin a vibrant rural economy that is among New Hampshire's largest industries. There are over 1,300 loggers and truckers hard at work in New Hampshire forests supplying New Hampshire's sawmills, pulpwood markets and biomass energy markets large and small. The total employment in the forest-based manufacturing sector is 7,756 providing total forest industry output and sales of \$1.4 billion. The biomass energy markets are an important part of this community.

Of particular importance to our organization (an organization dedicated to the science of nurturing forests and promoting sustainable forestry) is the loss of markets for "low grade" timber. These markets allow foresters, loggers, and landowners to harvest low value, poor quality, and less vigorous trees, thereby allowing healthier, vigorous trees to grow in value and produce higher value-added wood products. The loss of local low grade markets (such as woody biomass) would severely reduce the ability of our landowners to conduct forest improvement projects.

The vast majority of New Hampshire's landscape (76%) is owned by private forestland owners. These lands are the scenic backdrop for our everyday lives. They also provide us with clean water, wildlife habitat, and recreational opportunities. These private landowners depend on these forest products markets to earn income from their lands and to pay their property taxes. The potential loss of productive forest lands and local markets for low grade timber products would reduce their ability to keep their lands and accelerate the loss of forest resources.

The Granite State Division of the Society of American Foresters thanks the Committee for your consideration of SB 129 which will bolster the Renewable Energy Credits the six independent power plants need to continue operations, as well as to make other improvements to the NH RPS that will ensure its continued cost effective performance into the future. New Hampshire has been the envy of many other states around the country for thirty years as a leader of biomass energy and a vibrant forest economy. SB 129 is a strong measure to maintain this important sector of the New Hampshire economy.

Literature Cited:

The Economic Importance of New Hampshire's Forest based Economy 2013 online:
http://www.nefainfo.org/uploads/2/7/4/5/27453461/nefa13_econ_importance_nh_final_web.pdf

SB 129: RECs are Sold at Market Prices not Alternative Compliance Payment (ACP) Rates

SB 129 Based on Biomass REC Market Sales Price Estimates Compared to Existing Law Year 2017

	Current ACP	REC Price Broker \$	REC as % of \$45 ACP	SB 129 ACP	REC at % \$55 ACP	Number of RECs	Change to 2017 Existing Cost
2017	45	33	0.73	55	40.33	880,000	\$6,453,333
2018	35	N/A	N/A	55	40.33	890,247	\$6,866,629
2019	35	N/A	N/A	55	40.33	900,000	\$7,260,000
Total							\$20,579,962
3 Year Average							\$6,859,987

1. RECs are sold in a Market and Market Price is Determined by Supply and Demand.

- Biomass supply est. 1 million to 1,148,000 (Utility est. misses increase from biomass plant retrofit if SB 129 enacted.)
- Demand est. 880,000 in 2017 and 900,000 by 2019. (Utility incorrect to use 900,000 for all years.)
- Over-supply will reduce REC market prices and payments using the ACP rate are very unlikely (not REC under-supply as Utility claims).

2. Utilities Buy RECs at Market Rates not ACP Rate, thus Utility Use of ACP Rates Significantly Overstates SB 129's Impact

- ACPs paid only for REC supply shortage, but PUC per RSA 362-F:4,VI reduces REC demand during a shortage, and thus mitigates or eliminates ACPs.
- E.g., in 2015 PUC reduced class III demand and ACPs were \$174,240. Under Utilities' logic 2015 ACP increase would have been \$9 million.

3. Comparing a \$55 ACP to a \$35 ACP for 2018-19 Ignores Biomass Plant's Inability to Sustain REC Production at \$35 ACP

- Existing law decreases 2018-2019 ACP to approx. \$35. This is likely to end biomass in NH RPS due to resulting low REC rates.
- SB 129 needed to correct REC market pricing. RECs at \$33 will not sustain biomass generation (2016 energy market avg. \$28.94/MWh).
- Appropriate comparison: Above chart compares SB 129 REC Market Cost (2017-2019) to Existing law's REC Market Cost 2017.

SB 129 Provides Significant Annual Economic Benefits Far above Cost

The six NH Biomass plants directly spend over \$11 million in annual labor, and over \$33 million in annual wood fuel purchases. These biomass plants account for over 900 jobs, and \$250 million of annual economic activity. Source: March 1, 2017 Plymouth State University Study. Per SB 129 hearing testimony, bill also reduces Class I thermal REC percentage for a five year savings of over \$4 million.

11,000,000,000 Retail Sales per year (kWh)

Year	Current % Requirement	Current REC Obligation	Current REC purchase obligation minus net metering deductions	NEW % Requirement	NEW REC Obligation	New NET REC purchase obligation minus net metering deductions	Actual Class II REC prices*	Annual Added Cost of Class II
2018	0.30%	33,000	(2,096)	0.60%	66,000	(2,096)	\$30	\$ -
2019	0.30%	33,000	(2,096)	0.80%	88,000	19,904	\$30	\$ 597,120
2020	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120
2021	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120
2022	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120
2023	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120
2024	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120
2025	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120
Total cumulative cost of new Class II requirement 2018-2025								\$ 8,139,840

Other Assumptions

- 17,548 installed kW net metered not creating/selling RECs
- 20% capacity factor [to determine energy equivalent]
- 35,096 MWh per year that utilities needn't buy Class II RECs pursuant to RSA 362-F:6, II-a and Puc 2503.04(d)
- Source: https://www.puc.nh.gov/Sustainable%20Energy/Renewable_Portfolio_Standard_Program.htm
- *REC prices 2018-2015 based on REC seller/traders current prices and forecasts

Economic Benefits of Increased Class II Solar

The solar industry in NH employs about 800 people, and is one of the fastest growing sectors. There are at least 75 solar companies in NH. \$97 million of non-state funded investment was made into NH resulting from solar projects by June 30, 2016. Investment continues to grow in 2017. ISO-NE analysis shows that solar reduces the peak demand of the system (when energy costs are highest) thus lowering costs for everyone across generation, transmission and distribution

Senate Bill 129 (2017 Legislative Session)

Amendment to Class III ACP Rate (*changes shown in red*)

Alternative Compliance Payment Rates (\$ per Megawatt Hour)

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Class I	\$ 64.02	\$ 55.00	\$ 55.37	\$ 55.75	\$ 55.72	\$ 56.02	\$ 56.02 + 0.5*CPI Adj	CY18 + 0.5*CPI Adj	CY19 + 0.5*CPI Adj
Class I Thermal		\$ 25.00	\$ 25.17	\$ 25.34	\$ 25.33	\$ 25.46	\$ 25.46 + 0.5*CPI Adj	CY18 + 0.5*CPI Adj	CY19 + 0.5* CPI Adj
Class II	\$ 168.13	\$ 55.00	\$ 55.37	\$ 55.75	\$ 55.72	\$ 56.02	\$ 56.02 + 0.5*CPI Adj	CY18 + 0.5*CPI Adj	CY19 + 0.5*CPI Adj
Class III	\$ 31.39	\$ 31.50	\$ 31.93	\$ 45.00	\$ 45.00	\$ 55.00	\$ 55.00	\$ 55.00	\$ 31.50 + (2014 thru 2019 CPI Adjustments)
Class IV	\$ 31.39	\$ 26.50	\$ 26.86	\$ 27.23	\$ 27.20	\$ 27.49	\$ 27.49 + CPI Adj	CY18 + CPI Adj	CY19 + CPI Adj

Current Alternative Compliance Payment Rates (\$ per Megawatt Hour)

	2012	2013	2014	2015	2016	2017	2018
Class I	\$ 64.02	\$ 55.00	\$ 55.37	\$ 55.75	\$ 55.72	\$ 56.02	\$ 56.02 + 0.5*CPI Adj
Class I Thermal		\$ 25.00	\$ 25.17	\$ 25.34	\$ 25.33	\$ 25.46	\$ 25.46 + 0.5*CPI Adj
Class II	\$ 168.13	\$ 55.00	\$ 55.37	\$ 55.75	\$ 55.72	\$ 56.02	\$ 56.02 + 0.5*CPI Adj
Class III	\$ 31.39	\$ 31.50	\$ 31.93	\$ 45.00	\$ 45.00	\$ 45.00	\$ 31.50 + (2014 thru 2017 CPI Adjustments)
Class IV	\$ 31.39	\$ 26.50	\$ 26.86	\$ 27.23	\$ 27.20	\$ 27.49	\$ 27.49 + CPI Adj

Senate Bill 129 (2017 Legislative Session)

Amendment to Class I Thermal and Class II Annual Obligations (*changes shown in red*)

Renewable Portfolio Standard Obligations

Calendar Year	Total Requirement	Total Class I	* Class I	Thermal Class I	Class II	Class III	Class IV
2008	4.00%	0.00%	0.00%	0.00%	0.00%	3.50%	0.50%
2009	6.00%	0.50%	0.50%	0.00%	0.00%	4.50%	1.00%
2010	7.54%	1.00%	1.00%	0.00%	0.04%	5.50%	1.00%
2011	9.58%	2.00%	2.00%	0.00%	0.08%	6.50%	1.00%
2012	5.55%	3.00%	3.00%	0.00%	0.15%	1.40%	1.00%
2013	5.80%	3.80%	3.80%	0.00%	0.20%	0.50%	1.30%
2014	7.20%	5.00%	4.60%	0.40%	0.30%	0.50%	1.40%
2015	8.30%	6.00%	5.40%	0.60%	0.30%	0.50%	1.50%
2016	8.50%	6.90%	6.10%	0.80%	0.30%	0.50%	1.50%
2017	17.60%	7.80%	6.80%	1.00%	0.30%	8.00%	1.50%
2018	18.50%	8.70%	7.50%	1.20%	0.60%	8.00%	1.50%
2019	19.40%	9.60%	8.20%	1.40%	0.80%	8.00%	1.50%
2020	20.30%	10.50%	8.90%	1.60%	1.00%	8.00%	1.50%
2021	21.20%	11.40%	9.60%	1.80%	1.00%	8.00%	1.50%
2022	22.10%	12.30%	10.30%	2.00%	1.00%	8.00%	1.50%
2023	23.00%	13.20%	11.00%	2.20%	1.00%	8.00%	1.50%
2024	23.90%	14.10%	11.90%	2.20%	1.00%	8.00%	1.50%
2025 and thereafter	25.50%	15.00%	12.80%	2.20%	1.00%	8.00%	1.50%

*Class I (non-thermal) Impact Note: Amendment results in Class I (non-thermal) to increase by 0.7% annually as opposed to increasing by 0.8% annually under current legislation.

Senate Bill 129 (2017 Legislative Session)

Current Renewable Portfolio Standard Obligations

Calendar Year	Total Requirement	Total Class I	Class I	Thermal Class I	Class II	Class III	Class IV
2008	4.00%	0.00%	0.00%	0.00%	0.00%	3.50%	0.50%
2009	6.00%	0.50%	0.50%	0.00%	0.00%	4.50%	1.00%
2010	7.54%	1.00%	1.00%	0.00%	0.04%	5.50%	1.00%
2011	9.58%	2.00%	2.00%	0.00%	0.08%	6.50%	1.00%
2012	5.55%	3.00%	3.00%	0.00%	0.15%	1.40%	1.00%
2013	5.80%	3.80%	3.80%	0.00%	0.20%	0.50%	1.30%
2014	7.20%	5.00%	4.60%	0.40%	0.30%	0.50%	1.40%
2015	8.30%	6.00%	5.40%	0.60%	0.30%	0.50%	1.50%
2016	8.50%	6.20%	5.60%	0.60%	0.30%	0.50%	1.50%
2017	17.60%	7.80%	6.40%	1.40%	0.30%	8.00%	1.50%
2018	18.50%	8.70%	7.20%	1.50%	0.30%	8.00%	1.50%
2019	19.40%	9.60%	8.00%	1.60%	0.30%	8.00%	1.50%
2020	20.30%	10.50%	8.80%	1.70%	0.30%	8.00%	1.50%
2021	21.20%	11.40%	9.60%	1.80%	0.30%	8.00%	1.50%
2022	22.10%	12.30%	10.40%	1.90%	0.30%	8.00%	1.50%
2023	23.00%	13.20%	11.20%	2.00%	0.30%	8.00%	1.50%
2024	23.90%	14.10%	12.10%	2.00%	0.30%	8.00%	1.50%
2025 and thereafter	24.80%	15.00%	13.00%	2.00%	0.30%	8.00%	1.50%



The State of New Hampshire
Department of Environmental Services



Clark B. Freise, Assistant Commissioner

February 14, 2017

The Honorable Kevin Avard
Chair, Senate Energy and Natural Resources Committee
State House, Room 103
Concord, New Hampshire 03301

Re: SB 129 An Act requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass

Dear Chair Avard and Members of the Committee:

Thank you for the opportunity to comment on SB 129, requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and the class rate for biomass. The New Hampshire Department of Environmental Services (NHDES) supports this bill because it would devote a portion of the Renewable Energy Fund to a low-income renewable energy program. The benefits of incentivizing additional renewable energy are described in RSA 362-F:1 as follows:

“Renewable energy generation technologies can provide fuel diversity to the state and New England generation supply through use of local renewable fuels and resources that serve to displace and thereby lower regional dependence on fossil fuels. This has the potential to lower and stabilize future energy costs by reducing exposure to rising and volatile fossil fuel prices. The use of renewable energy technologies and fuels can also help to keep energy and investment dollars in the state to benefit our own economy. In addition, employing low emission forms of such technologies can reduce the amount of greenhouse gases, nitrogen oxides, and particulate matter emissions transported into New Hampshire and also generated in the state, thereby improving air quality and public health, and mitigating against the risks of climate change. It is therefore in the public interest to stimulate investment in low emission renewable energy generation technologies in New England and, in particular, New Hampshire, whether at new or existing facilities.”

www.des.nh.gov

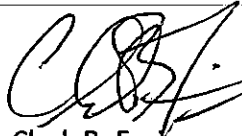
29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3503 • TDD Access: Relay NH 1-800-735-2964

The Honorable Kevin Avard
Chair, Senate Energy and Natural Resources Committee
February 14, 2017
Page 2

DES also supports the revision of the Class III Alternative Compliance Payment (ACP) to return the ACP to near its original value (reversing revisions made in 2011).

For the reasons identified by the General Court in the statute excerpt above, DES supports SB129. Thank you again for the opportunity to comment on SB 129. If you have any questions or require further information, please contact either Craig Wright, Director of the Air Resources Division (craig.wright@des.nh.gov, 271-1088) or Michael Fitzgerald, Assistant Director (michael.fitzgerald@des.nh.gov, 271-6390).

Sincerely,



Clark B. Freise
Assistant Commissioner

cc: Sponsors of SB 129: Sens. Bradley, Feltes, Innis, Avard, French, Fuller Clark, Giuda, Reagan, Ward;
Reps. Richardson, Chandler, McConkey, Shepardson, Backus

March 13, 2017

The Honorable Chuck Morse, Senate President
The Honorable Jeff Woodburn, Minority Leader
New Hampshire State Senate
State House
Concord, NH 03301

RE: Opposition to SB 129

Dear Senators Morse and Woodburn:

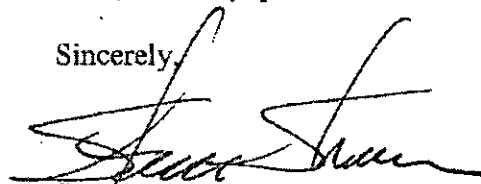
Sig Sauer opposes SB 129, setting aside a portion of the renewable energy fund for solar installations for low and moderate income residential customers, and makes significant costly changes to electric renewable energy classes and the class rate for biomass. Sig Sauer is not opposed to the portion of the bill relating to low and moderate income residents. However, the company strongly opposes the remainder of the bill.

According to the data provided by the state's electric utilities, if passed, SB 129 will cost New Hampshire ratepayers an additional \$75 million between now and 2025, assuming the most recent figures remain constant. For Sig Sauer, this would equal a roughly \$100,000.00 increase to our \$1.21 million Renewable Portfolio Standard cost over that same time period. There may be disagreement on the cost of the bill, but there is no disagreement that this bill will increase electricity costs in New Hampshire by tens of millions of dollars over the next nine years.

Sig Sauer hopes that the Senate will preserve the language in the bill regarding the ability of low and moderate income residents to benefit from solar projects, while stripping the remainder of the bill. Passage of this bill in its current form will increase electricity costs while doing nothing to increase affordable, reliable energy supplies. This will send the wrong message to New Hampshire residents and businesses, and businesses looking to locate here, as this bill adds to the already high electricity costs which are hurting our economy.

Thank you for your consideration of Sig Sauer's opposition to SB 129. Please do not hesitate to contact me or our Concord representative, David Cuzzi of Prospect Hill Strategies (603-716-0569) with any questions.

Sincerely,



Steven Shawver
Senior Vice President & Chief Legal Officer
Sig Sauer, Inc.

Guy H. Montminy
Senior Vice President and Deputy General Manager
BAE Systems Electronic Systems
65 Spit Brook Road
Nashua, NH 03061



March 14, 2017

The Honorable Chuck Morse, Senate President
The Honorable Jeff Woodburn, Minority Leader
New Hampshire State Senate
State House
Concord, NH 03301

RE: Opposition to SB 129

Dear Senators Morse and Woodburn:

BAE Systems opposes SB 129, requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass. The company is not opposed to the portion of the bill relating to low and moderate income residents. However, the company strongly opposes the remainder of the bill.

According to the state's electric utilities, if passed, SB 129 will cost New Hampshire ratepayers an additional \$75 million between now and 2025. That same data shows SB 129 will add roughly \$500,000.00 to the expected \$6.7 million the Renewable Portfolio Standard (RPS) will cost BAE Systems during the same period. Supporters of the bill argue that the bill will *only* cost ratepayers around \$30 million. Although there may be disagreement on the cost of the bill, there is no disagreement that this bill will increase electricity costs in New Hampshire by tens of millions of dollars between now and 2025.

BAE Systems feels any action by the Senate to advance legislation which knowingly increases electricity costs while doing nothing to increase affordable, reliable energy supplies is remarkably counterproductive. There is no disagreement that the state needs to lower electricity costs, and that New Hampshire's high costs are hurting our economy. There is no disagreement that this bill will significantly increase these costs. We hope Senators will act to preserve the language in the bill regarding the ability of low and moderate income residents to benefit from solar projects, while stripping the remainder of the bill.

Thank you for your consideration of BAE Systems' opposition to SB 129. Please do not hesitate to contact me or our Concord representative, David Cuzzi of Prospect Hill Strategies (603-716-0569) with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Guy Montminy".

Guy Montminy
Senior Vice President and Deputy General Manager
BAE Systems Electronic Systems



March 16, 2017

Senate President Chuck Morse
NH State Senate
107 North Main Street
Concord, NH 03301

RE: GMCC Position on SB 129; Section III RPS Class Rate for Biomass

Dear Senator Morse:

I write today to share the Greater Manchester Chamber of Commerce's (GMCC) concern and opposition to Section III of SB 129 which is coming to the Senate floor shortly. To be clear, the GMCC does not oppose the other provisions of SB 129.

The GMCC's concern with Section III of SB 129 is raising the RPS class rate for biomass will increase energy costs for New Hampshire consumers, most significantly large energy users like manufacturing companies. The rising cost of energy is already a well-established challenge facing New Hampshire that policymakers have identified as an issue that must be addressed. This provision of SB 129 moves us backwards from addressing this important issue. As you know, energy costs significantly impact our state's business climate and ability to attract, retain, and expand businesses.

The GMCC understands this provision aids biomass facilities in our state, however, policy changes that further increase energy costs risk hurting those employers already dealing with unsustainably high energy costs and put expansion opportunities and jobs at risk in the future.

The GMCC respectfully asks that this provision of SB 129 be removed from the bill before it is moved forward in the legislative process.

Thank you for your consideration,

Michael Skelton
President & CEO
GMCC

FISHER, SHEEHAN & COLTON

Public Finance and General Economics

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March 5, 2017

State Senator Dan Feltes
Legislative Office Building
Room 5
33 North State Street
Concord, NH 03301

Dear Senator Feltes:

I write to you today with respect to proposals to bar programs from imposing a minimum credit score for accessing certain solar financing programs in New Hampshire. It is my belief that New Hampshire utilities should be prohibited from making credit decisions based on a credit rating from an external credit agency. I offer the following insights based on my work with utilities throughout the United States and Canada.

Distinction by Demographic Factors

While credit scoring agencies claim not to take certain demographics such as income into consideration in their determinations, and are barred by law from taking factors such as age and gender into account, substantial research shows that credits scorers distinguish based on all three of these factors. As the Board of Governors of the Federal Reserve System reported to Congress in 2007:

By law and regulation, an individual's personal characteristics --such as race or ethnicity, national origin, sex, and, to a limited extent, age—must be excluded from credit-scoring models. A concern exists that, despite that prohibition, a credit characteristic may be included in a model not because it helps predict

performance but because it is a substitute, or proxy, for a demographic characteristic that is correlated with performance.¹

The Federal Reserve study examined data for three credit scores, including the TransRisk Score, the VantageScore, and the Federal Reserve's own estimated score. Results for the three credit scores, the Federal Reserve said were "virtually identical." The Federal Reserve report documents that "credit scores differ widely across populations, with blacks, Hispanics, individuals younger than age 30, unmarried individuals, and individuals residing in low-income or predominantly minority census tracts having lower credit scores than other subpopulations within their broader demographic group."² According to the Federal Reserve:

Differences in credit scores among racial or ethnic groups and age cohorts are particularly notable because they are larger than for other populations. For example, the mean normalized TransRisk Score for Asians is 54.8; for non-Hispanic whites, 54.0; for Hispanics, 38.2; and for blacks, 25.6. Credit scores by age increase consistently from young to old: The mean TransRisk Score for individuals younger than age 30 was 34.3; for those aged 62 or older, it was 68.1.³

The impact of these lower credit scores, as they present themselves in lower credit denial rates, is not surprising. The results, however, are more disturbing. The Federal Reserve reported that "individuals with lower credit scores experience higher inferred denial rates. This relationship is found across all population groups; after controlling for credit score, *however, blacks and Hispanics, younger individuals, and individuals that live in low-income areas show somewhat higher inferred denial rates than other groups.*" (emphasis added)⁴

Given the interrelationship of demographic characteristics, some groups simply have very little chance of accessing credit given a reliance on credit scores. The Federal Reserve distributed credit scores from lowest to highest and examined the demographic composition in each credit-score decile.

With the exception of sex, the composition of the population varies greatly across deciles. Taking the TransRisk Score as an example, 27.2 percent of the individuals in the lowest decile are black, whereas in the highest decile, 3.0

¹ Board of Governors of the Federal Reserve System (August 2007). *Report to the Congress on Credit Scoring and its Effects on the Availability and Affordability of Credit*, submitted to Congress pursuant to section 215 of the Fair and Accurate Credit Transactions Act of 2003.

² *Report to Congress*, supra, at O-12.

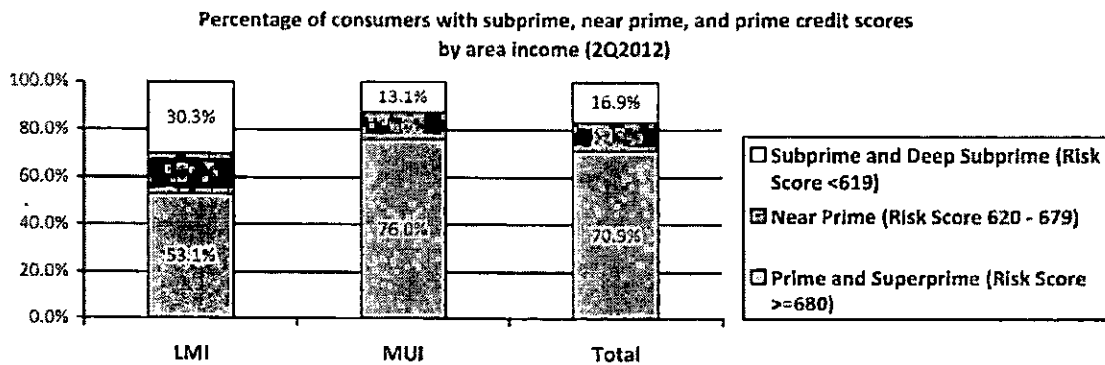
³ In order to compare results between the three types of credit scoring, the Federal Reserve Board rank ordered scores from 1 – 100.

⁴ *Report to Congress*, supra, at O-16.

percent are black. Similarly, 23.7 percent of those in the lowest decile are younger than 30 years of age versus 0.3 percent of those in the highest decile.

Notable differences in the composition of the population are also evident when individuals are sorted by the relative income. For example, 7.9 percent of the individuals in the lowest TransRisk Score decile reside in low-income areas, compared with 1.5 percent in the highest score decile.⁵

It certainly is not the case that only the Federal Reserve has found these disproportionate impacts. The Federal Reserve Bank of Boston, for example, reported that “scores are strongly correlated with demographic characteristics. For example, older consumers and higher-income earners tend to have higher scores.”⁶ The FRB of Boston found that “in Massachusetts, as of 2Q2012,⁷ 30.3 percent of individuals living in [low and moderate income, LMI] areas had subprime and deep subprime risk scores,⁸ compared to 13.1 percent of those living in [moderate and upper income, MUI] census tracts.”⁹



Consumers with lower credit scores not only face an increased probability that they will be denied credit entirely, but when they do receive credit they will be subjected to higher prices for that credit and will be more likely to be subject to collection action at lower thresholds of payment problems. According to Experian’s 2016 State of Credit report, the average credit score in America is 673.

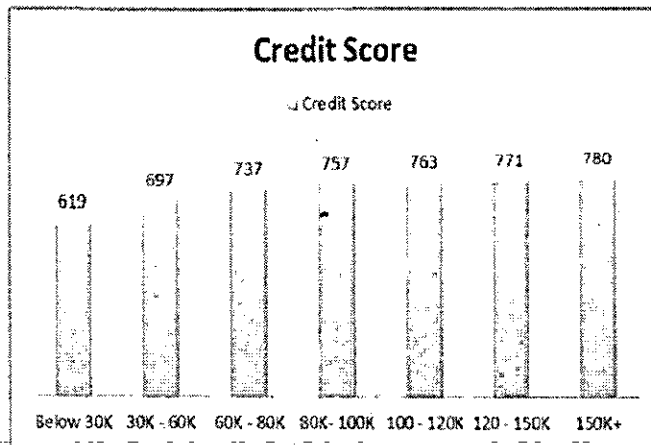
⁵ Report to Congress, supra, at 82.

⁶ Ana Patricia Munoz (October 2013). *Credit Conditions by Neighborhood Income: The Picture in Massachusetts*, at 16. Federal Reserve Bank of Boston: Boston (MA), citing Joanna Stavins and Fumiko Hayashi (2012). *Effects of Credit scores on Consumer Payment Choice*, Federal Reserve Bank of Boston: Boston (MA).

⁷ The second quarter of 2012.

⁸ That is, scores below 680.

⁹ *Picture in Massachusetts*, supra, at 16.



The fact that credit scores are associated with income can hardly be denied, even though credit scoring agencies assert, probably rightly so, that they do not take income *explicitly* into account. One credit tracking organization, Credit Sesame, unequivocally states that “Despite not being factored into the credit scoring formula, new data from Credit Sesame suggests that income is directly correlated with higher credit scores.” This result, Credit Sesame says,

is not simply because lower income households have more delinquencies in their payment histories. It is based, also, in large part on the fact that lower income households have lower credit utilization. According to their data, households with annual income less than \$30,000 have fewer credit cards, lower automobile loan payments, considerably less student loan debt, and considerably fewer mortgages. While, for example, only 17.81% of households with income less than \$30,000 own their home (and have a mortgage), 70% and more of households with income exceeding \$100,000 have home mortgages. While fewer than 25% of households with income less than \$30,000 have an automobile loan, 45% and more of households with income \$60,000 and higher have automobile loans. In contrast, while 43% of households with income below \$30,000 have student loans (compared to fewer than 25% with income of \$120,000 or more), the average monthly student loan payment for those lower-income households is only \$92, compared to more than twice that much for households with income of \$120,000 or more. Lower income households, in other words, have considerably less opportunity to access credit and to build a credit history upon which to base a favorable credit score.

Finally, each year, the credit bureau Experian releases a study about credit scores called “State of Credit.”¹⁰ In that study, Experian breaks credit scores down by region and income (amongst other things). Experian even publishes two lists each year: (1) the 10 cities with the best average credit score, and (2) the 10 cities with the worst average credit scores. Experian adamantly denies that good credit scores are related to income (or that income is taken into account in any regard in assessing a credit score). According to Experian, “it’s about credit management. The better you are at paying on time and keeping your balances low, the higher your score will be.” The data doesn’t quite support that assertion. One study by an on-line journalist writing about personal finance examined median income and “baseline cost-of-living” in the top five and bottom five cities identified in Experian’s annual credit report.¹¹

¹⁰ Experian reports what is known as the VantageScore.

¹¹ <http://www.highya.com/articles-guides/do-location-income-or-age-influence-your-credit-score>

Cities with Top Five Credit Scores (Experian)			Cities with Bottom Five Credit Scores (Experian)				
	City	Median Income	Self-Sufficiency Income		City	Median Income	Self-Sufficiency Income
1.	Mankato (MN)	\$63,488	\$45,837		Greenwood (MS)	\$26,156	\$41,004
2.	Rochester (MN)	\$63,472	\$50,078		Albany (GA)	\$26,156	\$34,419
3.	Minneapolis (MN)	\$71,008	\$50,603		Harlingen (TX)	\$34,868	\$40,548
4.	Green Bay (WI)	\$55,638	\$34,493		Riverside (CA)	\$56,592	\$49,315
5.	Wausau (WI)	\$40,464	\$41,453		Laredo (TX)	\$39,408	\$41,189

This study concluded that “based on the income numbers we gathered from the cities with the best and worst credit scores, we’d say income has a lot to do with scores. Simply put, the top five cities have significantly higher income than the bottom five cities:

- Four of the top five cities have median incomes at least \$10,000 above cost-of-living calculations for livable incomes.
- All but one of the bottom five cities have median incomes below cost-of-living calculations.”

Inability for Consumers to Challenge

Even when credit scores are reported for lower income consumers, they are more likely to be in error and without adequate mechanisms through which those scoring errors can be effectively challenged. This inability to correct information is particularly problematic to those with lower incomes and, therefore, with lower credit scores. Perhaps the pre-eminent study of data errors, by researchers for the Federal Reserve Bank of D.C., have documented that “individuals with scores below 600 tended to have the highest frequency of data problems, and those with scores above 660 had the lowest incidence.” Those errors make a substantive difference. According to the FRB of D.C. study, “Generally, individuals with scores below 600 were the most likely to experience a score increase of 10 points or more in response to corrections of data problems.”¹² The study reported that “In general, older individuals and those living in higher-income and nonminority neighborhoods had the lowest incidence of data problems.”¹³

In sum, Avery et al. found that while errors in credit reporting *overall* may be relatively small, “the analysis suggests. . .that the effects of data problems may be more substantial in some cases than in others. In particular, problems with collection accounts are much more likely to have significant effects on the credit history scores of affected individuals. Missing credit limits, simply because they occur so frequently, also represent an important data quality problem. In

¹² Robert Avery, et al. (2004). *Credit Report Accuracy and Access to Credit*, Federal Reserve Bulletin. 297, 318-319.

general, individuals with relatively low credit history scores or those with thin files are more likely to experience significant effects when a data problem arises.”¹⁴ As I noted above, customers with low-incomes are precisely the types of customers to have the factors leading to these data quality problems.

Consumers generally do not have the ability to effectively challenge credit determinations based on consumer credit scores. When a utility obtains a rating from Equifax, for example, the underlying details are not known by the utility. In performing a credit check based on a particular credit score, the utility is generally provided with a credit score or a response that credit information is not available.¹⁵ For privacy reasons, the utility neither obtains nor records the underlying credit file details.

The use of third-party supplied credit information as a basis for making utility credit decisions constitutes a problem when the third party information is not itself comprised of utility payment histories. Several reasons support this conclusion. First, substantial research has found that consumers tend to pay their utility bills before paying nearly any other outstanding credit (other than rent or mortgage obligations). Second, it has been found that low income consumers frequently acquire poor credit ratings by refusing to complete payments on abusive credit card terms.¹⁶ Finally, persons who have never borrowed from a reputable institutional lender, or maintained a charge account at a large store, may have difficulty establishing that their credit is good.

Second, the sharing of personal information precludes the ability of utility consumers to access, review, and correct (where appropriate) erroneous information that is used “downstream.” When personal information is sold or shared (e.g., from a credit reporting agency to a utility), the consumer no longer is in privity with the entity holding and using his or her personal information. If that information is subsequently used to his or her detriment, no mechanism exists to allow the consumer to access that information, let alone to review (and correct if appropriate). To the extent that the personal information has been combined with other information to create a new information product/digital dossier, it is impossible for the consumer to make corrections. Any modification would exist only until the information-combiner obtains a new set of (incorrect) information to incorporate into the information product/digital dossier.¹⁷

¹³ *Credit Report Accuracy*, supra, at 319.

¹⁴ *Credit Report Accuracy*, supra, at 319 – 320.

¹⁵ Sometimes, the utility is provided with a “pass” or “fail” recommendation without even being provided the underlying rationale for the recommendation. The utility would not know, in other words, if the credit score was inadequate or whether there was a lack of sufficient credit history upon which to make a recommendation.

¹⁶ Colton (1993). *The Use of Consumer Credit Reports in Assessing the Creditworthiness of Residential Utility Customers*, prepared for Montana Public Service Commission: Helena (MT).

¹⁷ GAO (April 2006). *Agency and Reseller Adherence to Key Privacy Principles*, GAO-06-421, at 48 (“resellers stated that making corrections to their databases could be ineffective because the data are continually refreshed with

Even if a correction in the new information product/digital dossier could be made, in other words, the correction exists only until it is subsequently overwritten by the next new set of external data from which the new information product/digital dossier was compiled with which to begin. Indeed, the frequent response by information-combiners is that consumers can only make corrections by going to the original source of information.¹⁸

Other reasons exist why it is particularly inappropriate to use credit agency scores to impose credit restrictions on low- and moderate-income households. It has been found that low income consumers frequently acquire poor credit ratings by refusing to complete payments on installment purchases of defective or shoddy merchandise. According to one study, 35 percent of the debtors in default who were studied "gave reasons for their default that implicated the creditor in varying degrees."¹⁹ According to this study, "by far the largest category of credit-related reasons consists of allegations of fraud and deception. Nineteen percent mentioned such wrongdoing by the seller as part of the reason for their default, and for 14 percent of all debtors, it was the *primary* reason." (emphasis added).²⁰ Among the problems experienced by low-income households included defective merchandise coupled with breach of both express and implied warranties, the delivery of wrong or "used" merchandise, the failure to deliver all merchandise ordered, and deceptive pricing practices.²¹

The study found that not only were low-income households more likely to face these types of problems,²² but that they were more likely to pay higher prices as well.²³ Nearly 40 percent of the households who purchased from merchants serving primarily low-income households were not told the true price of their purchase,²⁴ with the actual cost being understated by more than 25 percent in roughly one-in-five cases.²⁵ Moreover, the study found that low-income merchants often tend to circumvent interest rate ceilings "by having exorbitant markups on their goods."²⁶ "Bound by law not to charge more than 18 percent interest on a credit sale, the ghetto merchant

updated data from the source, and thus any correction is likely to be changed back to its original state the next time the data are updated.") While this GAO report references "information resellers," the conclusions are applicable to any information combiners.

¹⁸ *Id.*, at 48. When information is combined into a new information product/digital dossier, however, the "original source" is not necessarily known to the consumer. See generally, GAO (June 2006). *Personal Information: Key Federal Privacy Laws do not Require Information Resellers to Safeguard All Sensitive Data*, GAO-06-674.

¹⁹ Caplovitz, *Consumers in Trouble: A Study of Debtors in Default*, at 91 (MacMillan Publishing: 1974).

²⁰ *Id.*

²¹ *Id.*, at 92.

²² *Id.*, at 37.

²³ *Id.*, at 33.

²⁴ For example, the customer may have been quoted a cash price rather than a credit price.

²⁵ *Id.*, at 39.

²⁶ *Id.*, at 303.

does not hesitate to mark up his goods by one, two, or even three numbers, each number, in this quaint jargon of the trade, representing a 100 percent increase of the whole sale price."²⁷

Summary and Conclusions

Based on the above data and analysis, I conclude that the use of credit scores as you have inquired about in New Hampshire's solar programming would, in my opinion, have an inexorable and unavoidable adverse impact on low- and moderate-income New Hampshire consumers. This use of credit scores is not a fair reflection of the creditworthiness of such New Hampshire residents and would inappropriately exclude such customers from having an ability to participate in clean energy programs.

Please feel free to contact me should you have questions about these comments. I would look forward to an opportunity to meet with you at your convenience should you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'RDC', with a stylized flourish extending to the right.

Roger D. Colton

RDC/lb

²⁷ Id.



P.O. Box 532
Jaffrey NH 03452
603 532-4666
www.pelletheat.com

February 14, 2017

The Honorable Kevin Avard
Chair, Senate Committee on Energy and Natural Resources
Room 103 State House
Concord NH 03301

Re: SB129, New Hampshire Clean Energy Jobs and Opportunity Act of 2017

Dear Senator Avard and Members of the Committee:

New England Wood Pellet LLC, headquartered and with NH manufacturing facilities in Jaffrey NH, wishes to be on record in support of Senate Bill 129.

New England Wood Pellet does not benefit directly from the RPS (in fact our industrial electricity consumption helps to underwrite the ratepayer cost of RPS compliance), but we support the RPS because it has helped to build the market for wood pellet heating and the distribution of wood pellets in bulk to residential, commercial and institutional building owners.

It does this through PUC boiler rebate and grant programs funded by RPS compliance revenues, and through thermal RECs on qualifying modern wood heating systems. These programs have provided important incentives during a time of low fossil heating fuel prices against which our fuel competes.


Importantly, Senate Bill 129 proposes a change in the way the Class I thermal carve out is implemented over time. It restores the allocation to the simple linear growth that was proposed in the original enabling legislation, Senate Bill 218 in 2012. In 2013 (HB542) this allocation was revised to accommodate Concord Steam Corporation's proposed but now abandoned new combined heat and power plant in Concord, with its sizable quantity of thermal RECs. SB129 will provide about \$2.5 million in reduced RPS compliance cost to ratepayers over the next two years alone, assuming thermal RECs sell at or near the alternative compliance payment rate.

Beyond this change, we support the other changes proposed to the RPS through SB129, and we commend the sponsors for its introduction. The continued viable operation of the wood-fired electric generating plants is extremely important to forestry and the forest products industry in this time of shrinking low grade markets. The explicit authority to dedicate a minimum percentage of the

(over)

Renewable Energy Fund to initiatives that benefit low-moderate income customers will bring the long-term benefits of renewable energy to more people who might not otherwise be able to afford the often high initial capital cost. The increase in the Class II solar percentage will help to perpetuate continued growth in this fast growing and job producing market.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Wilson". The signature is fluid and cursive, with the first name "Mark" being more prominent than the last name "Wilson".

Mark R. Wilson
CEO

Thermal RECs for Biomass Heating Systems in New Hampshire

Systems That Have Qualified or Will Soon be Qualified

- **Mascoma Schools, Enfield/Canaan (pellet)**
- **Fall Mountain Schools, Walpole, Charlestown (pellet)**
- **Lyme Central School, Lyme (pellet)**
- **Warwick Mills, New Ipswich (chip)**
- **Sullivan County Complex, Unity (chip)**
- **Androscoggin Valley Hospital, Berlin (chip)**
- **Littleton Regional Healthcare, Littleton (chip)**
- **Shaker Regional School District, Belmont/Canterbury (pellet)**
- **Inter-Lakes School District, Meredith (pellet)**
- **Plymouth State University, Plymouth (pellet)**
- **Whelen Engineering, Charlestown (semi-dry chip)**
- **High Mowing School, Wilton (semi-dry chip)**
- **Historic Harrisville, Harrisville (pellet)**
- **Holderness School, Holderness (chip)**
- **Plymouth High School, Plymouth (chip)**
- **White Mountains Regional School District, Whitefield (pellet)**
- **Rockingham County Complex, Brentwood (chip, needs ESP to meet PM limit)**
- **Memorial Hospital, North Conway (wood-based pyrolysis oil)**
- **Claremont School District, Claremont (semi-dry chip, pellet)**
- **Keene State College, Keene (vegetable oil derived biodiesel)**

Committee Report

STATE OF NEW HAMPSHIRE

SENATE

REPORT OF THE COMMITTEE

Wednesday, March 8, 2017

THE COMMITTEE ON Energy and Natural Resources

to which was referred **SB 129**

AN ACT

requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass.

Having considered the same, the committee recommends that the Bill

OUGHT TO PASS WITH AMENDMENT

BY A VOTE OF: 5-0

AMENDMENT # 0770s

Senator Martha Fuller Clark
For the Committee

Griffin Roberge 271-2878

ENERGY AND NATURAL RESOURCES

SB 129, requiring a portion of the renewable energy fund to benefit low to moderate income residential customers and relative to electric renewable energy classes and relative to the class rate for biomass.

Ought to Pass with Amendment, Vote 5-0.

Senator Martha Fuller Clark for the committee.
