

# Committee Report

REGULAR CALENDAR

May 18, 2017

**HOUSE OF REPRESENTATIVES**

**REPORT OF COMMITTEE**

The Majority of the Committee on Science, Technology and Energy to which was referred SB 129,

AN ACT (New Title) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund. Having considered the same, report the same with the following amendment, and the recommendation that the bill OUGHT TO PASS WITH AMENDMENT.

**Rep. Herbert Richardson**

**FOR THE MAJORITY OF THE COMMITTEE**

Original: House Clerk

Cc: Committee Bill File

## MAJORITY COMMITTEE REPORT

Committee:	Science, Technology and Energy
Bill Number:	SB 129
Title:	(New Title) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.
Date:	May 18, 2017
Consent Calendar:	REGULAR
Recommendation:	OUGHT TO PASS WITH AMENDMENT 2017-1818h

### STATEMENT OF INTENT

This bill, "The New Hampshire Clean Energy Jobs and Opportunity Act", is critically important to the state's clean energy job sectors. First, it fixes a problem in the current Renewable Portfolio Standard law. The current law would lower the price of biomass renewable energy credits to the point where it would not support continued operations of six independent biomass plants located around the State, particularly given the historically low wholesale energy rates they get for their power. These plants support over 900 jobs and over \$250 million dollars of economic activity each year statewide. They also pay state and local taxes. We have already seen the temporary closure of a plant in Alexandria. This bill increases the renewable energy credit price for three years as a bridge as we seek a long-term solution for the viability of these plants. The plants are an important market for the forest product industry's low grade wood, as well as being critical to the health of our \$1.4 billion forest products industry. This is the one place where our energy policy intersects with our natural resource policy. We need these jobs. The bill reduces costs to ratepayers concerning thermal renewable energy, decreasing the requirements due to changes in the marketplace. The bill also incentivizes solar projects for low to moderate income residents and increases the percentage of solar in the renewable portfolio standard. The solar industry continues to grow, particularly in neighboring states. This bill helps make New Hampshire more competitive, helps attract and retain younger workers in this field, and helps support the 1,100 solar jobs already here. The bill opens access to renewable energy savings to low-income households and communities. The committee amendment mitigates the up front cost of modernizing Class II new solar, modifies the pilot project on net metering in community solar, and addresses the bill's effects on existing contracts. The overall cost of this bill is approximately \$18 million over the next eight years, without taking into account the resulting cost-savings from: 1) advancing distributed generation, 2) furthering energy diversification which provides immunization from price spikes in the natural gas market, and 3) lowering our peak demand, thereby reducing New Hampshire's allocation of ever-increasing regional transmission costs. Even so, to put that cost into perspective, it is much less than the cost of one year of tree trimming for the state's largest utility (\$41 million). Additionally, the current law allows the Public Utilities Commission to make annual adjustments in the biomass renewable portfolio law to protect ratepayers so that the "worst case scenario" that has been proclaimed by opponents does not happen. The benefits of supporting and advancing New

Original: House Clerk

Cc: Committee Bill File

Hampshire's solar industry, the benefits of \$250 million in annual economic activity from our biomass plants, and the 900 jobs in the biomass industry alone far outweigh the costs of this bill. The bill has broad bipartisan support.

Vote 17-4.

Rep. Herbert Richardson  
FOR THE MAJORITY

Original: House Clerk  
Cc: Committee Bill File

## Stapler, Carol

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**From:** hcrjoelanderson@gmail.com on behalf of Joel Anderson  
<joel.anderson@leg.state.nh.us>  
**Sent:** Thursday, May 18, 2017 1:59 PM  
**To:** Stapler, Carol  
**Subject:** SB 129 majority blurb (Rep. Richardson)

This bill, "The New Hampshire Clean Energy Jobs and Opportunity Act", is critically important to the state's clean energy job sectors. First, it fixes a problem in the current Renewable Portfolio Standard law. The current law would lower the price of biomass renewable energy credits to the point where it would not support continued operations of six independent biomass plants located around the State, particularly given the historically low wholesale energy rates they get for their power. These plants support over 900 jobs and over \$250 million dollars of economic activity each year statewide. They also pay state and local taxes. We have already seen the temporary closure of a plant in Alexandria. This bill increases the renewable energy credit price for three years as a bridge as we seek a long-term solution for the viability of these plants. The plants are an important market for the forest product industry's low grade wood, as well as being critical to the health of our \$1.4 billion forest products industry. This is the one place where our energy policy intersects with our natural resource policy. We need these jobs. The bill reduces costs to ratepayers in the section of thermal renewable energy which has been decreased due to changes in the marketplace. The bill also incentivizes solar projects for low to moderate income residents and increases the percentage of solar in the renewable portfolio standard. The solar industry continues to grow, particularly in neighboring states. This bill helps make New Hampshire more competitive, helps attract and retain younger workers in this field, and helps support the 1,100 solar jobs already here. The bill opens access to renewable energy savings to low-income households and communities. The committee amendment mitigates the upfront cost of modernizing Class II new solar, modifies the pilot project on net metering in community solar, and addresses the bill's effects on existing contracts. The overall cost of this bill is approximately \$18 million over the next eight years, without taking into account cost-savings from: 1) advancing distributed generation, 2) furthering energy diversification which provides immunization from price spikes in the natural gas market, or 3) lowering our peak demand, thereby reducing New Hampshire's allocation of ever-increasing regional transmission costs. Even so, to put that cost into perspective, it is much less than the cost of one year of tree trimming for the state's largest utility (\$41 million). Additionally, the current law allows the Public Utilities Commission to make annual adjustments in the biomass renewable portfolio law to protect ratepayers so that the "worst case scenario" that has been proclaimed by opponents does not happen. The benefits of supporting and advancing New Hampshire's solar industry, the benefits of \$250 million in annual economic activity from our biomass plants, and the 900 jobs in the biomass industry alone far outweigh the costs of this bill. The bill has broad bipartisan support.



Science, Technology and Energy  
 May 16, 2017  
 2017-1818h  
 06/04

Amendment to SB 129

1 Amend the bill by replacing sections 6 and 7 with the following:

2

3 6 Electric Renewable Portfolio Standard; Minimum Electric Renewable Portfolio Standards.

4 Amend RSA 362-F:3 to read as follows:

5 362-F:3 Minimum Electric Renewable Portfolio Standards. For each year specified in the table  
 6 below, each provider of electricity shall obtain and retire certificates sufficient in number and class  
 7 type to meet or exceed the following percentages of total megawatt-hours of electricity supplied by  
 8 the provider to its end-use customers that year, except to the extent that the provider makes  
 9 payments to the renewable energy fund under RSA 362-F:10, II:

	2008	2009	2010	2011	2012	2013	2014	2015	2025 and thereafter
10 Class I	0.0%	0.5%	1%	2%	3%	3.8%	5%	6%	15% (*)
11 Class II	0.0%	0.0%	0.04%	0.08%	0.15%	0.2%	0.3%	0.3%	<del>[0.3%]</del> 0.7%
12 Class III	3.5%	4.5%	5.5%	6.5%	1.4%	1.5%	3.0%	8.0%	8.0%
13 Class IV	0.5%	1%	1%	1%	1%	1.3%	1.4%	1.5%	1.5%

14  
 15 \*Class I increases an additional 0.9 percent per year from 2015 through 2025. A set percentage  
 16 of the class I totals shall be satisfied annually by the acquisition of renewable energy certificates  
 17 from qualifying renewable energy technologies producing useful thermal energy as defined in  
 18 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  
 19 percent in 2016, and increased annually by ~~[0.1]~~ 0.2 percent per year from 2017 through 2023, after  
 20 which it shall remain unchanged. *Class II shall increase to 0.5 percent beginning in 2018, 0.6*  
 21 *percent beginning in 2019, and 0.7 percent beginning in 2020, otherwise classes II-IV shall*  
 22 *remain at the same percentages from 2015 through 2025 except as provided in RSA 362-F:4, V-VI.*

23 7 Limited Electrical Energy Producers Act; Net Energy Metering. Amend RSA 362-A:9, XIV(c)  
 24 to read as follows:

25 (c) Notwithstanding paragraph V, a group host shall be paid for its surplus generation  
 26 at the end of each billing cycle at rates consistent with the credit the group host receives relative to  
 27 its own net metering under either subparagraph IV(a) or (b) or alternative tariffs that may be  
 28 applicable pursuant to paragraph XVI. *Each group member of a group host for a low-*  
 29 *moderate income community solar project, as defined in RSA 362-F:2, X-a, may receive*  
 30 *credits on the customer electric bill for each member and the host, provided that there*  
 31 *shall be only one new project under this paragraph in each utility's service territory by*  
 32 *December 31, 2019 with such projects available on a first-come, first serve basis. The*



1 *commission shall report on the costs and benefits of such projects on or before December*  
2 *31, 2019.* On an annual basis, the electric distribution utility shall calculate a payment adjustment  
3 if the host's surplus generation for which it was paid is greater than the group's total electricity  
4 usage during the same time period. The adjustment shall be such that the resulting compensation  
5 to the host for the amount that exceeded the group's total usage shall be at the utility's avoided cost  
6 or its default service rate in accordance with subparagraph V(b) or paragraph VI or alternative  
7 tariffs that may be applicable pursuant to paragraph XVI. The utility shall pay or bill the host  
8 accordingly.

9  
10 Amend the bill by inserting after section 10 the following and renumbering the original section 11 to  
11 read as 12.

12 11 New Section; Electric Renewable Portfolio Standard; Exemption Period for Certain  
13 Electrical Supply Contracts. Amend RSA 362-F by inserting after section 14 the following new  
14 section:

15 362-F:15 Exemption Period for Certain Electrical Supply Contracts.

16 I. The increases in the annual purchase percentages in RSA 362-F:3 applicable to class II  
17 for 2018 and thereafter as compared to the class II annual purchase percentages in effect as of  
18 January 1, 2017, shall not apply to the megawatts-hours delivered during the contract term under  
19 any electrical power supply contract entered into before the effective date of this section, provided  
20 that the contract term in effect before such effective date has not been extended or otherwise  
21 increased after that date.

22 II. The change in the class III methane gas eligibility requirements in RSA 362-F:4, III(b)  
23 as compared to the class III methane gas eligibility requirements in effect as of January 1, 2017  
24 shall not apply to class III methane gas certificates:

25 (a) Acquired pursuant to a contract entered into before the effective date of this section  
26 for the contract term, provided that the contract term in effect before such effective date has not  
27 been extended or otherwise increased after that date; or

28 (b) That are 2017 calendar year certificates issued before the first day of the first month  
29 of the calendar quarter following such effective date.

30 III. Providers shall inform the commission by July 1 of each year, through July 1, 2020, of  
31 all such exempted contracts, including but not limited to, the execution date and expiration date of  
32 the contract, the basis for exemption under this section, and if applicable, the annual megawatt-  
33 hours supplied and exempted, or the annual amount of exempted methane gas certificates and the  
34 basis for exemption. All such information filed with the commission shall be exempt from the  
35 provisions of RSA 91-A:5, IV.



2017-1818h

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.

V. Provides a period of exemption from increases in annual purchase percentages under the minimum electric renewable portfolio standard for certain electrical supply contracts.



REGULAR CALENDAR

May 18, 2017

**HOUSE OF REPRESENTATIVES**

**REPORT OF COMMITTEE**

The Minority of the Committee on Science, Technology and Energy to which was referred SB 129,

AN ACT (New Title) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund. Having considered the same, and being unable to agree with the Majority, report with the following resolution: **RESOLVED**, that it is **INEXPEDIENT TO LEGISLATE**.

**Rep. Keith Ammon**

**FOR THE MINORITY OF THE COMMITTEE**

Original: House Clerk

Cc: Committee Bill File

**MINORITY  
COMMITTEE REPORT**

Committee:	Science, Technology and Energy
Bill Number:	SB 129
Title:	(New Title) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.
Date:	May 18, 2017
Consent Calendar:	REGULAR
Recommendation:	INEXPEDIENT TO LEGISLATE

**STATEMENT OF INTENT**

New Hampshire residents pay among the highest electric rates in the nation. At a time when we should be finding ways to lower electric rates, this bill, as amended, does the opposite. The energy grid is a highly regulated market, which means it is subject to influence by political forces. Energy policy is a convoluted Rube Goldberg contraption, which, by design or not, obfuscates the inputs from the outputs in such a way that very few people truly understand it. This bill, as amended, continues the practice of subsidizing and bailing out certain industries at the expense of all residential and commercial ratepayers. This is a form of off-book taxation that is obscured within the electric rates NH citizens pay. These charges are not itemized on our electric bills and are hidden from public view. This bill, as amended, does three things that are carefully crafted to have maximal political influence, all the while increasing electric rates within the state. First, it subsidizes solar installations for low income residents by redirecting 15% of the Renewable Energy Fund to low-income projects. This, of course, is paid for by all ratepayers, including other low income residents who choose not to participate in the program. Secondly, it further subsidizes the solar installer industry by increasing subsidies directed through the Renewable Portfolio Standards system. This sends the signal that businesses in New Hampshire should focus less on being entrepreneurial and focus more on rent-seeking through governmental policy. Thirdly, it further misallocates resources and over protects the biomass industry which burns wood waste in order to generate electricity. This method of generation is less efficient than other methods and cannot compete on the open market, and therefore requires subsidies to exist. Biomass generation also contributes to greenhouse gas production. Proponents of the bill talk of the mystical "multiplier effect" where subsidies somehow magically create more economic activity. The focus is placed on the measurable seen good and never the more difficult to measure unseen damages. Common sense dictates that creating incentives for capital to flow into industries that cannot stand on their own prevents the same capital from being used for more productive purposes. Proponents of the bill also use the "drop-in-the-bucket" argument, "What are a few cents here and there if we can do good with it?" However, this bill will also increase rates on large commercial electricity consumers who are employers of many of our citizens. For instance, it is estimated that changes effected by this bill will cost one of the largest commercial users approximately \$500,000 over 8 years, capital that could otherwise be used to hire at least one full time employee during that period.

Original: House Clerk

Cc: Committee Bill File

## Stapler, Carol

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**From:** Keith Ammon <keithammon@gmail.com>  
**Sent:** Wednesday, May 17, 2017 10:58 PM  
**To:** 'Richard Barry'  
**Cc:** Thomas, Doug; Stapler, Carol  
**Subject:** Ammon Blurb for SB129

Hi all,

My minority report for SB129 is below. Could someone please doublecheck the statement in the last sentence? There were two numbers floated in discussion, one pre- and another post-amendment. Thanks.

-Keith

### Minority Report

Position: ITL

New Hampshire pay among the highest electric rates in the nation. At a time when we should be finding ways to lower electric rates, this bill, as amended, does the opposite. The energy grid is a highly-regulated market, which means it is subject to influence by political forces. Energy policy is a convoluted Rube Goldberg contraption, which, by design or not, obfuscates the inputs from the outputs in such a way that very few people truly understand it. This bill, as amended, continues the practice of subsidizing and bailing out certain industries at the expense of all residential and commercial ratepayers. This is a form of off-book taxation that is obscured within the electric rates NH citizens pay. These charges are not itemized on our electric bills and are hidden from public view. This bill, as amended, does three things, carefully crafted to have maximal political influence, all the while increasing electric rates within the state: 1) It subsidizes solar installations for low income residents by redirecting 15% of the renewable energy fund to low-income projects. This of course is paid for by all ratepayers, including other low income residents, who choose not to participate in the program. 2) It further subsidizes the solar installer industry by <sup>rebatable</sup> increasing subsidies directed through the Renewable Portfolio Standards system. This sends the signal that businesses in New Hampshire should focus less on being entrepreneurial and focus more on rent-seeking through governmental policy. 3) It further misallocates resources and overprotects the biomass industry which burns wood waste in order to generate electricity. This method of generation is less efficient than other methods and cannot compete on the open market and therefore requires subsidies to exist. Biomass generation also contributes to greenhouse gas production. Proponents of the bill talk of the mystical "multiplier effect" where subsidies somehow magically create more economic activity. The focus is placed on the measurable seen good and never the more difficult-to-measure unseen damages. Common sense dictates that creating mis-incentives for capital to flow into industries that cannot stand on their own prevents the same capital from being used for more productive purposes. Proponents of the bill also use the "drop-in-the-bucket" argument, 'What are a few cents here and there if we can do good with it?' However, this bill will also increase rates on large commercial electricity consumers, employers. For instance, it's estimated that changes affected by this bill will cost BEA Systems an additional \$500,000 over 8 years, capital that could be otherwise used to hire at least one full time employee.

one of the largest users approximately \$300,000  
Commercial

## Stapler, Carol

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### Minority Report

Position: ITL

New Hampshire has the highest electric rates in the nation. At a time when we should be finding ways to lower electric rates, this bill, as amended, does the opposite. The energy grid is a highly-regulated market, which means it is subject to influence by political forces. Energy policy is a convoluted Rube Goldberg contraption, which, by design or not, obfuscates the inputs from the outputs in such a way that very few people truly understand it. This bill, as amended, continues the practice of subsidizing and bailing out certain industries at the expense of all residential and commercial ratepayers. This is a form of off-book taxation that is obscured within the electric rates NH citizens pay. These charges are not itemized on our electric bills and are hidden from public view. This bill, as amended, does three things, carefully crafted to have maximal political influence, all the while increasing electric rates within the state: 1) It subsidizes solar installations for low income residents by redirecting 15% of the renewable energy fund to low-income projects. This of course is paid for by all ratepayers, including other low income residents, who choose not to participate in the program. 2) It further subsidizes the solar installer industry by increasing subsidies directed through the Renewable Portfolio Standards system. This sends the signal that businesses in New Hampshire should focus less on being entrepreneurial and focus more on rent-seeking through governmental policy. 3) It further misallocates resources and overprotects the biomass industry which burns wood waste in order to generate electricity. This method of generation is less efficient than other methods and cannot compete on the open market and therefore requires subsidies to exist. Biomass generation also contributes to greenhouse gas production. Proponents of the bill talk of the mystical "multiplier effect" where subsidies somehow magically create more economic activity. The focus is placed on the measurable seen good and never the more difficult-to-measure unseen damages. Common sense dictates that creating mis-incentives for capital to flow into industries that cannot stand on their own prevents the same capital from being used for more productive purposes. Proponents of the bill also use the "drop-in-the-bucket" argument, 'What are a few cents here and there if we can do good with it?' However, this bill will also increase rates on large commercial electricity consumers, employers. For instance, it's estimated that changes affected by this bill will cost BEA Systems an additional \$500,000 over 8 years, capital that could be otherwise used to hire at least one full time employee.

# Voting Sheets

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

EXECUTIVE SESSION on SB 129

**BILL TITLE:** (New Title) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.

**DATE:** May 9, 2017

**LOB ROOM:** 304

**MOTIONS:** OUGHT TO PASS WITH AMENDMENT

Moved by Rep. Richardson                      Seconded by Rep. G. Smith                      AM Vote: 17-4  
Amendment # 2017-1818h

Moved by Rep. Vose                                  Seconded by Rep. Backus                                  Vote: 21-0

**CONSENT CALENDAR: NO**

Statement of Intent:                      Refer to Committee Report

Respectfully submitted,

Rep Douglas Thomas, Clerk

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

EXECUTIVE SESSION on SB 129

BILL TITLE: (New Title) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.

DATE: 5-9-17 opened and recessed next week

LOB ROOM: 304

MOTION: (Please check one box)

- OTP
- ITL
- Retain (1<sup>st</sup> year)
- Adoption of Amendment # 2017-1788s (if offered) 1818h
- Interim Study (2nd year)

Moved by Rep. Vose Seconded by Rep. Backus Vote: 21-0

MOTION: (Please check one box)

- OTP
- OTP/A
- ITL
- Retain (1<sup>st</sup> year)
- Adoption of Amendment # \_\_\_\_\_ (if offered)
- Interim Study (2nd year)

Moved by Rep. Richardson Seconded by Rep. Smith Vote: 17-4

MOTION: (Please check one box)

- OTP
- OTP/A
- ITL
- Retain (1<sup>st</sup> year)
- Adoption of Amendment # \_\_\_\_\_ (if offered)
- Interim Study (2nd year)

Moved by Rep. \_\_\_\_\_ Seconded by Rep. \_\_\_\_\_ Vote: \_\_\_\_\_

MOTION: (Please check one box)

- OTP
- OTP/A
- ITL
- Retain (1<sup>st</sup> year)
- Adoption of Amendment # \_\_\_\_\_ (if offered)
- Interim Study (2nd year)

Moved by Rep. \_\_\_\_\_ Seconded by Rep. \_\_\_\_\_ Vote: \_\_\_\_\_

CONSENT CALENDAR: \_\_\_\_ YES \_\_\_\_ NO

Minority Report? \_\_\_\_ Yes \_\_\_\_ No If yes, author, Rep: \_\_\_\_\_ Motion \_\_\_\_\_

Respectfully submitted: [Signature]



STATE OF NEW HAMPSHIRE  
OFFICE OF THE HOUSE CLERK

5/8/2017 3:11:58 PM  
Roll Call Committee Registers  
Report

2017 SESSION

2017-1788S

ST&E

Bill #: SB 129

Title: (WT) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.

PH Date:           /          /          

Exec Session Date:           /          /          

Motion: Adopt

Amendment #: 2017-1788S

MEMBER

YEAS

NAYS

Barry, Richard W. Chariman	✓	
Richardson, Herbert D. Vice Chairman	✓	
Murotake, David K. O'Conner, John T.	✓	
Vadney, Herbert R.	✓	
Notter, Jeanine M.	✓	
ok Aldrich, Glen G. <del>Las...</del>	✓	
Thomas, Douglas W. Clerk	✓	
Vose, Michael	✓	
Ammon, Keith	✓	
Kuch, Bill	✓	
Smith, Gregory G.	✓	
Backus, Robert A.	✓	
Cali-Pitts, Jacqueline A.	✓	
Harvey, Suzanne	✓	
Mann, John E.	✓	
Moffett, Howard M.	✓	
Shepardson, Marjorie J. Smith, S.	✓	
Oxenham, Lee Walker	✓	
Somssich, Peter F.	✓	
Vincent, Kenneth S.	✓	
TOTAL VOTE:	21	0
Merner	✓	





STATE OF NEW HAMPSHIRE  
OFFICE OF THE HOUSE CLERK

5/8/2017 3:11:58 PM  
Roll Call Committee Registers  
Report

2017 SESSION

ST&E

Bill #: SB 129

Title: (NT) requiring a portion of the renewable energy funds  
to be used to moderate income residential  
customers, relative to electric renewable energy  
classes, relative to the class rate for business, and  
related to requirements for incentive payments  
from the renewable energy funds.

PH Date: 1/1/17

Exec Session Date: 1/1/17

Motion: DTPA

Amendment #: YEAS

MEMBER

OK

Barry, Richard W. Chariman		✓	
Richardson, Herbert D. Vice Chairman		✓	
<del>Murotake, David K.</del> O'Conner, John T.		✓	
Vadney, Herbert R.		✓	
Notter, Jeanine M.			✓
<del>Aldrich, Glen G.</del> Lasettes			✓
Thomas, Douglas W. Clerk		✓	
Vose, Michael		✓	
Ammon, Keith			✓
Kuch, Bill			✓
Smith, Gregory G.		✓	
Backus, Robert A.		✓	
Cali-Pitts, Jacqueline A.		✓	
Harvey, Suzanne		✓	
Mann, John E.		✓	
Moffett, Howard M.		✓	
<del>Shepardson, Marjorie J.</del> Smith, S.		✓	
Oxenham, Lee Walker		✓	
Somssich, Peter F.		✓	
Vincent, Kenneth S.		✓	
TOTAL VOTE:		17	4
Merner		✓	



Amendment to SB 129

1 Amend the bill by replacing sections 6 and 7 with the following:

2

3 6 Electric Renewable Portfolio Standard; Minimum Electric Renewable Portfolio Standards.

4 Amend RSA 362-F:3 to read as follows:

5 362-F:3 Minimum Electric Renewable Portfolio Standards. For each year specified in the table  
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11 Class II	0.0%	0.0%	0.04%	0.08%	0.15%	0.2%	0.3%	0.3%	[0.3%] 0.7%
12 Class III	3.5%	4.5%	5.5%	6.5%	1.4%	1.5%	3.0%	8.0%	8.0%
13 Class IV	0.5%	1%	1%	1%	1%	1.3%	1.4%	1.5%	1.5%

14  
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24 to read as follows:

25 (c) Notwithstanding paragraph V, a group host shall be paid for its surplus generation  
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31 *shall be only one new project under this paragraph in each utility's service territory by*  
32 *December 31, 2019 with such projects available on a first-come, first serve basis. The*



1 *commission shall report on the costs and benefits of such projects on or before December*  
2 *31, 2019.* On an annual basis, the electric distribution utility shall calculate a payment adjustment  
3 if the host's surplus generation for which it was paid is greater than the group's total electricity  
4 usage during the same time period. The adjustment shall be such that the resulting compensation  
5 to the host for the amount that exceeded the group's total usage shall be at the utility's avoided cost  
6 or its default service rate in accordance with subparagraph V(b) or paragraph VI or alternative  
7 tariffs that may be applicable pursuant to paragraph XVI. The utility shall pay or bill the host  
8 accordingly.

9  
10 Amend the bill by inserting after section 10 the following and renumbering the original section 11 to  
11 read as 12.

12 11 New Section; Electric Renewable Portfolio Standard; Exemption Period for Certain  
13 Electrical Supply Contracts. Amend RSA 362-F by inserting after section 14 the following new  
14 section:

15 362-F:15 Exemption Period for Certain Electrical Supply Contracts.

16 I. The increases in the annual purchase percentages in RSA 362-F:3 applicable to class II  
17 for 2018 and thereafter as compared to the class II annual purchase percentages in effect as of  
18 January 1, 2017, shall not apply to the megawatts-hours delivered during the contract term under  
19 any electrical power supply contract entered into before the effective date of this section, provided  
20 that the contract term in effect before such effective date has not been extended or otherwise  
21 increased after that date.

22 II. The change in the class III methane gas eligibility requirements in RSA 362-F:4, III(b)  
23 as compared to the class III methane gas eligibility requirements in effect as of January 1, 2017  
24 shall not apply to class III methane gas certificates:

25 (a) Acquired pursuant to a contract entered into before the effective date of this section  
26 for the contract term, provided that the contract term in effect before such effective date has not  
27 been extended or otherwise increased after that date; or

28 (b) That are 2017 calendar year certificates issued before the first day of the first month  
29 of the calendar quarter following such effective date.

30 III. Providers shall inform the commission by July 1 of each year, through July 1, 2020, of  
31 all such exempted contracts, including but not limited to, the execution date and expiration date of  
32 the contract, the basis for exemption under this section, and if applicable, the annual megawatt-  
33 hours supplied and exempted, or the annual amount of exempted methane gas certificates and the  
34 basis for exemption. All such information filed with the commission shall be exempt from the  
35 provisions of RSA 91-A:5, IV.



2017-1818h

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.
- V. Provides a period of exemption from increases in annual purchase percentages under the minimum electric renewable portfolio standard for certain electrical supply contracts.

# Sub-Committee Actions

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

**SUBCOMMITTEE WORK SESSION** on SB 129

**BILL TITLE:** (New Title) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.

**DATE:** May 15, 2017

**Subcommittee Members:** Reps. Barry, Richardson, Murotake, Vadney, Notter, Aldrich, Vose, Ammon, B. Kuch, G. Smith, Backus, Cali-Pitts, S. Harvey, Mann, H. Moffett, Shepardson, Oxenham, Somssich, Vincent, Merner and D. Thomas

**Comments and Recommendations:** Rep. Vose amendment 2017-1788s, compromise amendment. Sen. Bradley- lowers cost of original bill. Reduces solar with new figures: .5 and .7 percent. Reviewed chart on new numbers (1st page vs. 2nd page) Group net metering adjusted to one new pilot project for each service area. New section added to grandfather contracts for methane. Q: Rep. Michael Vose: Is this a classic compromise, no one happy? A: Yes. Q: Rep. Jacki Cali Pitts: Solar 80% reduction negligible, impact? A: refer to solar advocate, will accept. Q: Rep. Cali Pitts: What is difference between token and cutting out? A: Doesn't agree with token, of some significance addressing cost concerns while helping solar. Q: Rep. Cali Pitts: Impact on wood? A: Not change to original. Q: Rep. Doug Thomas: Is wood industry do or die and solar is for growth? A: Yes, wood industry is do or die and needs help, solar not so dire, but wants growth for its 1200 jobs. Q: Rep. Suzanne Harvey: Sense for Committee of Conference senators opinions? A: Can't say, but will push for it. Believes concurrence probably. Q: Rep. Peter Somssich: What is benefit over cost? A: Impacts 900 wood jobs, 1200 solar jobs. Additional multiplier effect more than jobs. Q: Rep. Cali Pitts: Wood - any guarantees to keep operating? A: Berlin plant not affected by bill. Other plants use market and needs help to keep operating. No guarantees but fourth attempt to keep open. Rep. Vadney: New information handout. Refer to Maine efforts on how to handle wood industry. Q: Rep. Greg Smith: on Bradley chart, REC net meter column, where number come from? A: (Kate: see reference, still unsure, talk later. Rep. Vadney: Maine initiative still costly, money comes from somewhere. Must cautious. Q: Rep. John Mann - Refer to \$.2/month on Bradley chart, is this felt by commercial or only residential? How many residential involved? A: 35% resident, 65% commercial power users. It will cost more to ratepayers. Q: Rep. Herb Richardson: Willing to compromise; are we willing to risk jobs over about \$.70 per month increase? A: Refer to solar component. Q: Rep. Cali Pitts - We keep going up and up, why can't we keep level or go down? A: Other bills may address that. Q: Rep Lee Oxenham - Do not consider Rep. Vadney suggestion; attempt to derail bill.

Respectfully submitted,



Rep. Douglas Thomas  
Subcommittee Clerk

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

FULL COMMITTEE WORK SESSION on SB 129

BILL TITLE: (New Title) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.

DATE: 5-9-17 / 5-16-17

Subcommittee Members: Reps. Barry, Richardson, Murotake, Vadney, Notter, Aldrich, Vose, Ammon, B. Kuch, G. Smith, Polewarczyk, Backus, Cali-Pitts, S. Harvey, Mann, H. Moffett, Shepardson, Oxenham, Somssich, Vincent and D. Thomas

Comments and Recommendations:

See comments.

MOTIONS: OTP, OTP/A, ITL, Retained (1st Yr), Interim Study (2nd Yr) (Please circle one)

Moved by Rep. \_\_\_\_\_ Seconded by Rep. \_\_\_\_\_ AM Vote: \_\_\_\_\_

Adoption of Amendment # \_\_\_\_\_

Moved by Rep. \_\_\_\_\_ Seconded by Rep. \_\_\_\_\_ Vote: \_\_\_\_\_

\_\_\_\_\_ Amendment Adopted \_\_\_\_\_ Amendment Failed

MOTIONS: OTP, OTP/A, ITL, Retained (1st Yr), Interim Study (2nd Yr) (Please circle one)

Moved by Rep. \_\_\_\_\_ Seconded by Rep. \_\_\_\_\_ AM Vote: \_\_\_\_\_

Adoption of Amendment # \_\_\_\_\_

Moved by Rep. \_\_\_\_\_ Seconded by Rep. \_\_\_\_\_ Vote: \_\_\_\_\_

\_\_\_\_\_ Amendment Adopted \_\_\_\_\_ Amendment Failed

Respectfully submitted,

Rep. [Signature] Subcommittee Chairman/Clerk

SB 129

WORK SESSION (CONT)

5/15/17

Vose amendment (new) - 2017-1788s - Compromise amendment.

\* Sen Bradley - lowers cost of original bill. Reduces solar with new figures: .5, .7 percent. Reviewed chart on new numbers (1<sup>st</sup> page vs vs. 2<sup>nd</sup> page).

Scrap net metering adjusted, to one new <sup>pilot</sup> project for each service area. new section added to grandfather contracts for methane.

Q/MV - is this a classic compromise, no one happy? A - yes.

Q/SC - solar 80% reduction negligible, impact? A - refer to solar advocates, will accept. Q/SC - what is different between taken and cutting out? A - doesn't agree with "taken", of some significance, addressing cost concerns while helping solar.

Q/SC - impact on wood? A - no change to original.

Q/OT - wood do or die and solar for growth? - A - yes wood industry is do or die and needs help, solar not so dire, but wants growth for its 1200 jobs. Q/SH - sense for C of C senators opinions? A - can't say, but will push for it. Believes concurrence probable. Q/PS - what is benefit over cost? A - impacts 900 wood jobs, 1200 solar jobs. Additional multiplier effect more than jobs.

Q/SC - wood - any guarantees to keep operating? A - Berlin plant not affected by bill. Other plants use market and needs the help to keep operating. No guarantees, but faith attempt to keep open.



SB 129

W.S. (cont)

5/15/17

\* Rep Vadney - new information handout. Refer to Maine efforts on how to handle wood industry.

Q/GS on Bradley chart, REC net meter column - where numbers come from? - A (Kate) - see reference, still unsure, talk later.

Vadney - Maine initiative still costly, money comes from somewhere. Must be cautious. Q/SM - refer to \$8M cost, avg \$22/mo. on Bradley chart, is this felt by commercial or only residential? How many residential involved? A - 357, residential 65%, commercial power ~~users~~ users. It will cost more to ratepayers. Q/HR - willing to compromise, are we willing to risk jobs over about \$1.7/<sup>hour</sup> increase? A - \$1.7 refer to solar component. Q/LC - we keep going up and up, why can't we keep level or go down? A - other bills may address that. Q/LO - do not consider Vadney suggestion, attempt to derail bill.

# Hearing Minutes

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

PUBLIC HEARING ON SB 129

**BILL TITLE:** (New Title) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.

**DATE:** April 11, 2017

**LOB ROOM:** 304

**Time Public Hearing Called to Order:** 1:36 p.m.

**Time Adjourned:** 5:41 p.m.

**Committee Members:** Reps. Barry, Richardson, Murotake, Vadney, Notter, Aldrich, Vose, Ammon, B. Kuch, G. Smith, Polewarczyk, Backus, Cali-Pitts, S. Harvey, Mann, H. Moffett, Shepardson, Oxenham, Somssich, Vincent and D. Thomas

**Bill Sponsors:**

Sen. Bradley  
Sen. Avard  
Sen. Giuda  
Rep. Richardson  
Rep. Shepardson

Sen. Feltes  
Sen. French  
Sen. Reagan  
Rep. Chandler  
Rep. Backus

Sen. Innis  
Sen. Fuller Clark  
Sen. Ward  
Rep. McConkey

TESTIMONY

\* Use asterisk if written testimony and/or amendments are submitted.

**Sen. Jeb Bradley, prime sponsor & Sen. Dan Feltes, co-sponsor** - Introduced the bill. Sen. Bradley: Bill is about jobs. Referenced the closure of Alexandria wood plant; 900 jobs in the wood industry, greater than 1000 jobs in solar industry. Energy diversity issue; 15% set aside for solar allows more people to afford rooftop solar. Refresher on alternative compliance payment (ACP) market and real payments. {ACP=payments into the Renewable Energy Fund from utilities when they are unable to use market mechanisms to comply with the state's RPS laws}. Increase in rate payers costs from this bill is offset by the jobs to be saved. Sen. Feltes: Peak sharing review. Ways to reduce peak demand - solar. Never have had a set-aside for solar. Increase solar participation will decrease cost.

**Q: Rep. Michael Vose** - How does this work for low income?

**A:** Experts on set-asides would look at ways to implement programs, income screening, federal guidelines and rule-making.

**Q:** Bill lines 18-20; unfair practice? What is definition, who decides?

**A:** Comes from general RSA definitions on unfair markets; consider it a public benefit.

**Q: Rep. Jacqueline Cali Pitts** - Not touching C&D (construction & demolition) burn plants?

**A:** No.

**Q: Rep. Herb Vadney** - Reference solar peak; how and why?

**A:** Reference from solar experts that state shaves peak demands, but bill is really about jobs.

**Q: Rep. Vose** - Bill would cost \$25 million more, how much on the shoulder of state of NH and municipalities?

**A:** Don't know, but do cost of loss of more than 1000 solar jobs. Bill has major impact on wood/solar jobs.

**\*Sen. Robert Guida, co-sponsor** - Supports bill. Jobs bill. Cites written testimony on Thompson Tree Farm. Cites Alexandria closing. Raise Renewable Energy Credits (RECs) price - why: sustains jobs, current REC markets too low, other plants will close, more wood industries lost. Forest management important, keeps forests healthy.

**Q: Rep. David Murotake** - How many jobs lost from closing paper mills?

**A:** Don't know but it's obvious the North Country is hurting.

**Q: Rep. Herb Vadney** - How much more subsidies to support wood?

**A:** Don't like subsidies, but this is needed for biomass and wood.

**Q: Rep. Cali Pitts** - Impact on other businesses on raising REC's?

**A:** Average increase of about \$2.50 per month for each ratepayer.

**Q:** Have we ever come to the aid of one industry?

**A:** Yes, we've incentivized many others in past. Allow time to plan to come out of subsidies.

**Executive Councilor Joseph Kenney** - Supports, specifically biomass industry. Cost of bill is worth saving the biomass industry.

**\*Dan Allegretti, Constellation** - Opposes. Concerns how plan to pay for it. Raises cost of obligations to customers, contracts signed, looked at REC's; made commitments to customers. Suggest a transitional method, exempt existing retail contracts.

**Q: Rep. Suzanne Harvey** - Gave testimony to the Senate?

**A:** No, not aware of it at the time.

**Q: Rep. Greg Smith** - How long is fixed price contract?

**A:** About 12 to 24 months.

**Q: Rep. David Murotake** - Do you have a sample amendment for suggestion?

**A:** Yes, in work.

**\*Matt Leahy, Forest Society** - Supports; see written testimony.

**Q: Rep. Lee Oxenham** - Benefit of clean air and water?

**A:** Yes.

**Q: Rep. Murotake** - Spacing of trees?

**A:** Not prime focus.

**Q:** Tourism improved?

**A:** Yes.

**Karen Crampton, PUC** - No position. Can help with low income programs to manage monies from bill. No gas landfills certified in New Hampshire. Request for written testimony; will email to Joel, committee researcher, and committee.

**Q: Rep. Murotake** - Market REC, provide by class percent of ACP from REC?

**A:** Varies daily, don't trend, but can give some sample ranges over a few days.

**Q: Rep. Vose** - Will raising RECs attract outside or inside NH buyers?

**A:** We have what we have.

**Mark Dean, NH Electric Coop** - Opposes. Consider other ways to achieve goals. Cites PUC decision to raise market from 1/2% to 8%. This approach may be too strong.

**Q: Rep. Vadney** - Dollar value per household in North Country?

**A:** Co-op is really in middle. Estimates on bills reflect average kw hrs for 2018 is \$7.41/month, 2019, \$9+/month, then down a little in 2020.

**Q: Rep. Vose** - RPS not working?

**A:** No, I wouldn't say that, always been a supporter. Issue of wood plants not so much an issue of RPS.

**Q:** Is RPS working for wood burn plants?

**A:** No, if it were this bill would not be here.

**Q: Rep. Murotake** - Is biomass collapse around us?

**A:** No wood plant outside qualifies for REC III.

**Q: Rep. Peter Somssich** - Alternative way?

**A:** Goal is to keep plants operating, ask what it takes, then you know what needs to be done. Legislative takes too long.

**\*John Scales, Anderson Equipment** - Supports. Its a jobs bill. 90% business in wood /forest industry. Paper mills in Maine (6-7) collapsed in 2016; huge toll on business; need low grade market.

**\* Raymond Berthianume, Wagner Forest Management** - Supports; see written testimony. Low grade industry touches just about everything in the state.

**\*Stephanie Lamb, Business & Industry Assoc.** - Opposes. Maintains bill is about cost and jobs. Cites 68 K manufacturing jobs (about \$8 Billion). Costs associated with bill reason for opposition.

**\*Lisa Linowes of Lyman, representing self** - Opposes. Wood industry victims of

own support of RPS. Bought into state of Connecticut RECs market. Market collapsed in 2016 (about \$25/REC), now looking to New Hampshire market. Referenced gas landfill market in New York. Believes bill artificially inflates RECs to detriment of New Hampshire ratepayer. Recommends allowing New York market in to New Hampshire. Policy change in the middle of compliance year not good, commitments have been made.

Errol S.Peters, Peters Logging - Supports; bill is vital to business.

Shawn Lagueux, forester - Supports. Timber sales, pulp chips. Important to remove low grade wood, health of forest. Can't discount impact to local communities.

Michael Licata, Liberty Utilities - Opposes as written (section 7); no position on rest of bill. Utility would be put in middle of contractual agreement, especially for disputes. Manual operation, can't automate. New poverty standard in the bill conflicts with current poverty standard for low income electricity assistance.

Michael Sharp of Bridgewater, logger - Supports. Largest supplier to Alexandria. Biomass gives ability to keep forests clean and healthy.

Rock Bunnell, Rocky Bunnell Logging, Monroe, NH - Supports. Land owners want clean wooded trails. \$5.2M paid to local community.

\*Mike Fitzgerald, NH DES - Supports. Arbitrary change in 2010 lowered ACP, now need to raise it back to where it was prior to 2010. Healthy forests good.

Mark Lambert, UNITIL - Opposes bill due to section 7 of the bill. No longer necessary; strike out.

Bob Berti, Town of Rumney N.C.P. - Supports. Believes fairest is healthiest in US. Concern on electric rates is too narrow. Supports natural resources more than jobs.

\*Marc Brown, New England Ratepayers Assoc. - Opposes. Will add millions (about \$50 M-\$75 M) to NH ratepayers. Low income rates raised to get low income help. Seems counter intuitive.

\*Doug Patch, Retail Energy Supply Assoc. (RESA) - Opposes; see written testimony... Provided sample amendment to grandfather retail electric providers. Provided a sample law.

Donald Hardwick, DH Hardwick & Sons, Frankestown, NH - Supports. Called yes he supports.

\*Brad Simpkins, FRED, Division of Forest & Lands - Supports; see written testimony. RPS is a tool we can use now.

Robert Olson, attorney from Hopkinton & Michael O'Leary, attorney from

Bridgewater, representing Biomass Plants & Bridgewater Power Co. - Support. Reviews methane provision. Disagrees with total grandfathering. Need to look at what is fair.

Dan Early, Broadleaf Forest Management - Supports.

Ben Crowell, NH, Durgin & Crowell Lumber Co., New London - Supports.

Shelagh Connelly, Holderness, Resource Management - Supports. Prime source of wood ash (potassium) for fertilizer and crops.

\*Hunter Carbee, Granite State Div., Society of American Foresters - Supports; see written testimony.

Kevin Porter, ROC USA - Supports.

\*Kate Epsen, NH Sustainable Energy Assoc. - Supports. Written testimony to be emailed.

\*Robert Lussier, Biomass, Pinetree Power, Tamworth - Supports; see written testimony.

\*Ed Witt, Madison Lumber - Supports; see written testimony.

\*Charles Levesque, INRS - Supports. Map showing low grade wood markets and recent closings.

Craig Birch, Protor Hill Forestry, Hollis, NH - Supports. Land clearing needs a market.

James Egan, Milton Cat - Supports. Caterpillar dealer about 130 employees.

Daver Marlo Herrick, Hopkinton Forestry, Supports. Trail systems big industry; cross-country ski trails need clearing.

Ron Klemarczyk of Contoocook, NH - Supports. Salvage from storms, ice, insects, etc. Likes subsidies to decrease fossil fuels.

John O'Neil, MWW, Manchester - Supports. Lake Massabesic manager. Helps watershed.

Jon Baker, Cousineau Wood Products - Supports. 90% wood purchased within 50 mile of facility.

\*Jason Stock, NH Timberland Owners Assoc. - Supports; see written testimony.

\*Alan Linder, NH legal assistance - Supports; see written testimony. Supports low income provision.

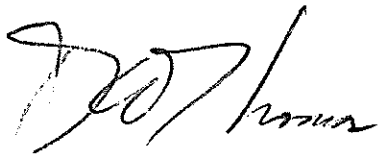
Jack Ruderman, ReVision Energy - Supports. Would grow solar jobs.

Thomas Christon of Lyndborough, NH, representing self - Supports bill.  
Tree farm; needs low grade wood to grow and keep fire rates low.

Blue Sheets:

73 Pro, 3 Con

Respectfully Submitted:

A handwritten signature in black ink, appearing to read "Doug Thomas". The signature is stylized with a large initial "D" and a long horizontal stroke.

Doug Thomas, Clerk



HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

PUBLIC HEARING ON SB 129

**BILL TITLE:** (New Title) requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.

**DATE:** 4/11/17

**ROOM:** 304/306

**Time Public Hearing Called to Order:** 1:36 p

**Time Adjourned:** 5:41 p

(please circle if present)

**Committee Members:** Reps. Barry, Richardson, Murotake, Vadney, Notter, Aldrich, Vose, ~~Wynn~~, B. Rich, C. Smith, Polewarczyk, Backus, Fall-Pitts, S. Harvey, Mann, H. Moffett, Shepardson, Oxenham, Somssich, Vincent and D. Thomas

**Bill Sponsors:**

Sen. Bradley  
Sen. Avard  
Sen. Giuda  
Rep. Richardson  
Rep. Shepardson

Sen. Feltes  
Sen. French  
Sen. Reagan  
Rep. Chandler  
Rep. Backus

Sen. Innis  
Sen. Fuller Clark  
Sen. Ward  
Rep. McConkey

TESTIMONY

\* Use asterisk if written testimony and/or amendments are submitted.

Sen Feltes/Sen Bradley - intro bill. <sup>SB</sup> Bill is about jobs. Prof closure Alexandria wood plant closing. 900 jobs wood industry, >1000 jobs solar industry. Energy diversity issue. 15% set aside for solar allows more people to afford rooftop solar. Preference on ACP market and real payments. Increase in rate pays costs from this bill is offset by the jobs to be saved. F/ Peak shaving review. Ways to reduce peak demand - solar. Never have had a set aside for solar. Increase solar participation will decrease cost.

cont.

SB 129 (cont'd)

Public Hearing

4/11/17

Q/MV - How does this work for low income? A/  
 experts on art would look at ways to  
 implement program, income averaging, federal guidelines  
 and rule-making. F/D - bill lines 18-20 - unfair  
 practice; what is alignment, who decides? A/comes  
 from general RSA alignment on unfair markets,  
 consider it a public benefit. Q/C - not touching  
 C/D burn plants? A/ no. Q/HV - reform when  
 peak, how and why? A/ up from when experts that  
 state when shows peak demands, but bill is really  
 about jobs. Q/MV - bill would cost \$25M more,  
 how much on shortfalls of state of NH and revenues?  
 A/ don't know, but do cost of loss of 2000 other  
 jobs. Bill has major impact on small/other jobs.

\* Sen Givida - supports bill. Jobs bill, cities  
 counter testimony on Thomson # Free Farm, cities  
 Alameda's claims. Raise REC price - why? maintain  
 jobs, current REC markets for less, other plants  
 will close, more coal in the state. Forest  
 management important, keeps forests healthy. Q/Dm.  
 how many jobs lost from energy paper mills? A/  
 don't know, but obvious market country is hurting.

4/11/17

## Public Hearing (cont'd)

Q/14V - how much more subsidies to support wood?  
 A/ don't like subsidies, but this is needed for biomass and wood. Q/15C - impact on other businesses on raising REC? A/ avg increase of ~\$2.50/mo each ratepayer. F/o - have we ever come to the aid of one industry? A/ yes, we've incentivized many others in past. Allow time to plan to come out of subsidies.

Councilor Kenney (District 1) - supports bill, specifically biomass industry. Cost of bill is worth saving the biomass industry.

\* Dan Allegretti / Constellation - opposes bill, concerns - how plan to pay for it. Raises cost of obligations to customers, contracts signed, locked at RECs, made commitments to customers. Suggests a transitional method - exempt existing retail contracts. Q/5H - give testimony to senate? A - no, not aware at time. Q/6S - how long fixed price contracts? A/ about 12-24 mos. Q/DM - have sample amendment for suggestion? A/ yes, in work.

\* Matt Leahy - supports bill. See testimony.

Q/50 - benefit of clean air + water? A - yes.

Q/DM - spacing of trees? A/ not prime focus. F/o - tourism improved? A/ yes.

SB129

4/11/17

Public Hearing (cont'd)

Karen Crampton / PUC - has no position. Can help with low income program to manage monies from bill. No gas landfills certified in NH. Request for written testimony - will email to Joel and committee.

Q / DM - market REC, provide by class per cent of ACP from REC? A / varies daily, don't trend, but can give some sample ranges over a few days. Q / MV - will raising RECs attract outside or inside NH buyers? A / we have what we have.

Mark Dean / NHElec Co-op - oppose bill.

Consider other ways to achieve goals. Cites PUC decision to raise market from 1/2% to 8%.

This approach may be too strong. Q / HV - dollar value per household in north country? A / Co-op is really in middle. Estimates on bill reflects avg 500 kWh 2018 is \$7.41/mo, 2019 - \$9+/mo., then down a little in 2020. Q / MV - RPS not working?

A / no, wouldn't say that, always been a supporter.

Issue of wood plants not so much a issue of RPS.

F / O - is RPS working for wood burn plants? A / no, if it were, this bill wouldn't be here. Q / DM -

is biomass collapse around us? A / no wood plant outside NH qualifies for REC III. Q / PS - alternative

way? A / goal to keep plants operating, ask what it takes, then you know what needs to be done. Legislative takes too long.

SB 129

4/11/17

Public Hearing (cont)

John Scales / Anderson Equip - supports bill. Is a jobs bill. 90% business in wood / forest industry. Paper mills in Maine (6-7) collapsed 2016, huge toll on business. Need low grade market.

\* Raymond Berthiaume / Wagner Forest Mgmt - support bill. See testimony. Low grade industry touches just about everything in state.

\* Stephanie Lamb / BIA - oppose bill. Maintains bill about cost and jobs. Cites 68K manufacturing jobs (~\$8B). Costs associated w/ bill reason for opposition.

\* Lisa Linowes / Self - opposes bill. Wood industry victim of own support of RPS. Bought into state of CN RECs market. Market collapsed 2016 (~\$25 REC), now looking to NH market. Ref gas landfill market in NY. Believes bill artificially inflates RECs to detriment of NH ratepayer. Recommends allow NY market in to NH. Policy change in middle of compliance year not good, commitments have been made.

4/11/17 Public Hearing (cont)

\* ~~Herol~~ Herol Peters / Peters Logging - supports Bill. Bill is vital to business.

Shawn Laguerre / Forrester - supports bill. Timber sales, pulp chips. Important to remove low grade wood, health of forest. Can't discount impact to local communities.

Michael Licata / Liberty Util - opposes as utility would be put in middle of contractual agreement, (action ?); no position on rest of bill.

opposedly for dispute. Manual operation, can't automate. Next priority standard in bill conflicts with current priority standard for low income etc. incomes.

Michael Sharp - Rogers - supports bill. Support expansion to Abengona. Business gives ability to keep forests clean and healthy.

Rock Buaneil / Logging - supports bill. Found owners want clean wooded lands. 45.2M paid to local economies.

\* Mike Fitzgerald / DES - supports bill. Voluntary change in 2010 toward ACF, now need to raise it back to where it was prior 2010. It really forests good.

4/11/17

Mark Lambert/Unit 1 - oppose bill due to action 7 of bill. no longer necessary. Strike out.

Bob Berti/Rumney NCF - accept bill. Bob's parent is healthiest in U.S. Concern on oblique rates is too narrow. Support to national resources more than jobs.

Mark Brown/NEEA - oppose bill. Will <sup>not</sup> make <sup>any</sup> <sup>change</sup> raised to get low income help. Some counter initiative.

\* Doug Patch/RESA - oppose bill. See testimony. Forwarded sample amendment to grandfather relief oblique provision. Forwarded a sample law. <sup>opposes</sup> <sup>bill</sup> Donald Hardeck/DH Hardeck & Sons - <sup>opposes</sup> <sup>bill</sup> <sup>#93</sup> <sup>oppose</sup> <sup>or</sup> <sup>support</sup> <sup>?</sup> <sup>(see pink card)</sup>

\* Brad Simpkins/DRED - forestry - supports bill. See testimony. RPS is tool we can use now.

Robert Olson/Michael O'Leary/Atty & Bridgewater Business Plan. - support bill. Review methane provision. Disagree with that grandfathering. Most look at what is fair.

4/16/17

## Public Hearing (cont)

Dan Earley - support bill

Ben Crowell / Durgin + Crowell Lumber - support bill.

Shelagh Connelly / Resource Mgmt. - support bill.

Prime source of wood ash (potassium) for fertilizer + crops.

\* Hunter Carbee / Soc. Amer. Foresters - support bill.  
See testimony.

Kevin Porter / ROC USA - supports bill.

Kate Epsen / NH Sust. Energy Assoc. - supports bill  
written testimony to be emailed.

\* Robert Lussier / Pine Tree Power - supports bill.  
See testimony.

\* Ed Witt / Madison Lumber - supports bill. see testimony.

\* Charles Levesque / INRS - supports bill.  
Map showing low grade wood markets and recent closings.

Craig Birch / ? - supports bill. Land clearing needs a market.



Public Hearing (cont)

4/11/17

James Egan/Milton Cat. - supports bill.   
 Caterpillar dealer. ~130 employees. \*

Daver Mario Herrick/Hopkinton Forestry - supports bill.   
 Trail systems big industry; x-cable trail maintenance needs   
 cleaning.

Ron Klemarczyk/self - supports bill. Savings from   
 atoms, ice, insects, etc. & other subsidies to decrease   
 fossil fuels.

John O'Neil/MWU - Take Massachusetts mfg.   
 supports bill. Help waterflood.

Jan Baker/Cousineau - supports bill. 90% wood   
 processed w/ some of facility.

\* Jason Stock/NH Timberland Owners Assoc. written test.

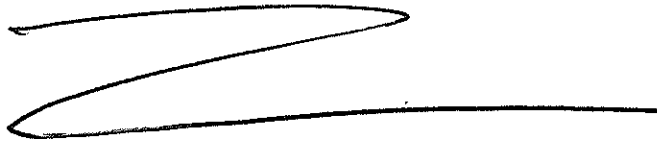
\* Alan Linder/NH legal assistance - supports bill.   
 See testimony. Supports law income provision.

Jack Ruderman/Revision Energy - supports bill. would   
 grow solar jobs.

Thomas Christenon/self - supports bill. Tree Farm. Needs law   
 made wood to grow and keep from rotting law.   
 8

see sep. sheets 1-8

B.S. 73 pa 3 con



end

# SIGN UP SHEET

To Register Opinion If Not Speaking

Bill # SB 129 Date 4-11-17

Committee ST-E

\*\* Please Print All Information \*\*

Name	Address	Phone	Representing	(check one)	
				Pro	Con
JAMES DAMMANN	Hillsboro NH	603 496 7898	NCP	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Michael Buckman	Westminster MA	508 934 1101	Engie	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Michael Blakey	151 Alexandria NH	603-744-6355	NO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scott Manning	Westminster Ma	978 886-2183	Engie	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Jeff Moulton	185 Taylor Brook Ln Derry, NH	603-421-4905	Derry	<input checked="" type="checkbox"/>	<input type="checkbox"/>
STEVEN CELROM	WESTMINSTER MA	778 874-2866	ENGIE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
David Coll	431 <sup>Pittsford</sup> NH RT 119E	603 903-2100	Route II	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Patricia Martin	17 Ferrar Rd Rindge	603 899 884	SELF	<input checked="" type="checkbox"/>	<input type="checkbox"/>
John Ayers	100 Adams St + R.		Route II Timber	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sean Carlson	92 Sherburne Hill Rd Northwood	603 782 2228	CoStar	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chris Goshaw	242 Athol Rd Richmond NH	603-239-4366	Goshaw Trucking	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LISA LLOYDS	250 Burke Hill Rd Lyman	603 838 6588		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Charley Hanson	112 Coe Hill Rd Center Harbor		RMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. [unclear]	1241 Whitefield Bethel		ENGIE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alan Taschereau	PO Box 12 Waterbury	802-585-9851	Green Crow	<input type="checkbox"/>	<input type="checkbox"/>
David Cuzzi	PO Box 124 March		BAE Systems	<input type="checkbox"/>	<input checked="" type="checkbox"/>
David Cuzzi	" "		Sig Sauer	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Robert Johnson, II	(written testimony provided)		NH Farm Bureau	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Steven Patten	459 Center Rd Bradford		written provided	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wain [unclear]	124 Dew		Hollis	<input checked="" type="checkbox"/>	<input type="checkbox"/>

# SIGN UP SHEET

To Register Opinion If Not Speaking

Bill # SB 129 Date 4-11-17

Committee ST:E

\*\* Please Print All Information \*\*

Name	Address	Phone	Representing	(check one)	
				Pro	Con
Senator Kevin Avard			SD# 12	X	
Senator Ruth Ward			SD# 8	X	
Rep Gene Chandler			Carroll 1	X	
Rep. Dick Hinch			House Majority Office	X	
Rep Erin Hennessey			Grafton 1	X	
Rep John T. O'Connor	Rock. G			X	
Rep Suzanne Smith			Grafton 8	X	
Sen. Dan Innis			SD # 24	✓	
Fred C Weld		603 675 6147		✓	
Ryan Mugerelli		603 568 4694		✓	
Kaymanel Lafette		603-991-3010		✓	
Kandy Cassidy		802-535-5564		✓	
Bernie Lantagne		802 633 - 4038		✓	
Richard Lantagne		802 244 - 3895		✓	
Rocky Bunnell		<del>603</del> 603 634 4983		✓	
Heath Bunnell		603 991 7144		✓	
Dan Keniston		603-245-3317		✓	
JON BAKER		603-491-0524		✓	
Susan Arnold	AMC	603-664-2050		✓	
Sen Fuller Clark			SD# 21	✓	
BOB BERTI	481-2600		RUMNEY	✓	
Dorothy Carrier	Concord			✓	
Rep MARK McConkey	Freedom		Carroll # 3	X	



# SIGN UP SHEET

To Register Opinion If Not Speaking

Bill # SB 129 Date 4-11-17  
 Committee STEE

\*\* Please Print All Information \*\*

Name	Address	Phone	Representing	(check one)	
				Pro	Con
Shawn Laguerx	76 Overlook Dr <sup>Bristol, NH</sup>	481-2549	Forester	X	
Muhad SHARP	1 MEADOW BROOK <sup>Bristol</sup>	252-6689	logger	X	
ED WITT	P.O. Box 224 W. WISSEEE	651-9912	MAD LUMBER	X	
Kyle Kelley	225 Union St. <sup>Littleton, NH</sup>	496-1607	<sup>North country lumber</sup> logger	X	
JOHN Foster Jr.	225 Union St. <sup>Littleton, NH</sup>	496-205	North Country Lumber	X	
Ted Vanson	362 East Holliston Rd <sup>Holliston, NH</sup>	966-7359	NEC Solar	X	
Adam Hoing	36 Dan Webb Rd, <sup>Campton, NH</sup>	508 813 9054	PAREZ	X	
SCOTT RINDER	ERROL, NH	603-331-5676	<sup>Vermont</sup> Forest Mgr	X	
Tyler Webb	Sunapee, NH	603-504-4121		X	
CHRIS COOKE	P.O. Box 455 <sup>Littleton</sup>	603-398-3082	logger	X	
Steve Santy	1429 Pearl Lake Rd <sup>Lisbon</sup>	(603) 838-5977	logger	X	
Matt Mayson	963 Route 129 <sup>Londonderry, NH</sup>	435-9918	logger	X	
Jamie Maguire	803 Rt. 129 <sup>Londonderry, NH</sup>	435-9918		X	
James Egan	30 Industrial Dr. <sup>Londonderry, NH</sup>	03053		X	
Eric Cole	30 Industrial Dr. <sup>Londonderry, NH</sup>	Milton Cat		X	
Stacey Thomson	53 Bout 10 <sup>of Ford, NH</sup>	03777	<sup>Thomson</sup> Timber	X	
Brian Bliss	7 Restful Ln <sup>Danbury, NH</sup>	381-0734		X	
HARRY KING	50 Libbey Rd <sup>Wentworth, NH</sup>	603 264-9154		X	
Dennis McKenney	<sup>Bennington, NH</sup>	03492		X	
Ed Lemire	<sup>Antrim, NH</sup>	03440 848-7300	logger	X	
Lisa COSS	<sup>Antrim, NH</sup>	03440	logger	X	
Roland Lemire	<sup>Antrim, NH</sup>	03440	logger	X	
Karla Allen	<sup>N. Conway, NH</sup>	03813	Forester	X	

# SIGN UP SHEET

To Register Opinion If Not Speaking

Bill # SB 129 Date 4-11-17

Committee Stif

**\*\* Please Print All Information \*\***

Name	Address	Phone	Representing	(check one)	
				Pro	Con
Ken Grossman	Berryton NH	7318322		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Neil Sessaed	Bedford N.H.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
ROBERT PERK	CONCORD, NH	225-4000	SANEL AUTO PARTS CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DAVID Chase	4 GRANDVIEW TERRACE N.H.		NORTRAX INC	<input checked="" type="checkbox"/>	<input type="checkbox"/>
JEFFREY EAMES	FORT MTN, COMPANIES ALLENSTOWN N.H.			<input checked="" type="checkbox"/>	<input type="checkbox"/>
John Seales	565 Main St Lancaster NH		Anderson Equip	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TOM CHRISTENTON	PO BOX 121 LYNDESBORO			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kevin Porter	Concord NH	545-7508	ROC USA	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Jim O'Brien	Concord, NH		The Nature Conservancy TNC	<input checked="" type="checkbox"/>	<input type="checkbox"/>
STEVEN HOSWANDER	WILCHANDON, MA	590-2061	ROUND TIMBER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ben Coll	15 Jericho Rd Rindge NH		Round Timber	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Joyce Rose	Hookinton NH		Chuck Rose, Inc	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dale Poquette Jr	65 Poquette Dr. Sullivan, NH	(603) 357-9628	Poquette Sons	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Michael Powers	469 Tanglewood Dr. Henniker, NH	603 325-5430	Bay State	<input checked="" type="checkbox"/>	<input type="checkbox"/>

# Testimony



## Stapler, Carol

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**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:10 PM  
**To:** Stapler, Carol  
**Subject:** FW: SB 129 testimony  
**Attachments:** Linowes-SB129-Testimony17-04-11.pdf

Hi Carol:

For the record.

Dick

Representative Richard Barry

Chair: Science, Technology & Energy

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**From:** Lisa Linowes [llinowes@windaction.org]  
**Sent:** Thursday, April 13, 2017 1:14 PM  
**To:** ~House Science Technology and Energy  
**Subject:** SB 129 testimony

Dear Chairman Barry and Honorable Committee Members:

Thank you very much for the opportunity to speak before your committee on Tuesday, April 11, regarding SB129. Attached please find an electronic version of my testimony. I made one material correction to the attached. The last paragraph of the testimony distributed on Tuesday incorrectly referred to SB 59. This has been corrected to SB 51.

In addition to SB 51 which establishes a committee to examine energy subsidies, beginning in 2018, RSA 362-F:5 requires the PUC to "conduct a review of the class requirements in RSA 362-F:3 and other aspects of the electric renewable portfolio standard program." Before we enact dramatic changes to the RPS as cited in SB129, I believe it is critical to consider what other processes are already at work to assess NH's RPS.

Thank you again for the opportunity to provide comment.

Best,

--Lisa Linowes

---

lisa linowes  
executive director  
603-838-6588  
windaction.org  
like us on facebook - <https://www.facebook.com/windactionorg>

**Testimony of Lisa Linowes Regarding SB 129**  
**NH House Science, Technology and Energy Committee**  
**April 11, 2017**

**1. Introduction**

Chairman Barry, members of the committee, thank you for the opportunity to appear before you today.

My name is Lisa Linowes. I am a resident of the State of New Hampshire and executive director of the Windaction Group, a national organization that tracks and reports on policies that incent renewable energy development, particularly wind energy.

I am here to speak in opposition to SB 129. These incremental changes to NH RPS may appear minor, but their effect on the 2017 RPS Compliance year and on New Hampshire ratepayers are likely to be significant.

**2. Class III involving Methane Gas**

The recommended change to Class III involving Methane Gas is extremely concerning and, in my opinion, a regretful display a party attempting to manipulate Class III for its own benefit.

**a. NH PUC Action on Class III:** As you are aware, the NH PUC has administratively lowered the Class III mandate every year since 2011 due to a lack of Class III RECs. The bulk of our biomass RECs funneled into Connecticut where they could secure a higher price as Connecticut Class I. This is the first compliance year since 2011 that the Class III mandate is at 8%.

The abundance of in-region and imported wind and solar has helped the New England states with active RPS policies to meet their Class I requirements. This lowered the Class I price which is good for consumers but made selling into Connecticut less attractive. With compliance comes lower REC prices, as we were all promised. That's how the market was designed and that's what happened. Vintage 2016 Class I REC prices now sell for around \$16/REC; 2017 Class I RECs sell for around \$25-27.

In December, the PUC (Docket DE 16-850) considered again whether to take action to lower the Class III mandate. At the recommendation of the Wood Independent Power producers (IPPs), and over objections of load suppliers, the Commission retained the 8% mandate. This decision, in large part, was based on testimony by the Wood lobby that there would sufficient RECs from biomass and landfill gas.

Now we are debating a change that seeks to exclude some Class III eligible resources from the RPS.

Without commenting on the intentions of those advocating this change, there is one obvious outcome:

*Eliminating landfill gas resources will constrain the supply of Class III RECs, limit NH's ability to meet compliance, and place upward pressure on REC prices. In other words, this bill will lower supply relative to demand and force the price up. This is called market manipulation and should be rejected.*

**b. Retroactive Action to Jan 1, 2017:** The language of this bill seeks the change retroactively to the beginning of the year. This means that owners of these plants would move from Class III to Class- NOTHING! The result could be:

- Generators who may have sold RECs or signed contracts to provide 2017 RECs are harmed.
- Load suppliers who planned for the 8% mandate and made purchases accordingly could be sitting on worthless RECs.

- Possible unanticipated negative impacts to Class I REC supply and prices.
- Higher prices for NH Ratepayers.

Changing policy that impacts markets in such a significant way, **midway** through the compliance year, should be strongly discouraged.

**c. Alternative Recommendations:**

- Amend Class III percentage: Before this change is adopted, the PUC and this Committee should understand clearly the impact on Class III REC supplies and consider a corresponding change to the Class III percentage. If we lose 1% of the 8% RECs, for example, the 8% should be reduced.
- Change Eligibility Dates: A second, and preferable amendment would be to change the in-service date for Class I 'new' resources from January 1, 2006 to January 1, 1998 as found in both MA and RI, and also move the date for eligible Class III resources to January 1, 1998. Doing so retains these landfill gas resources as active participants in meeting Class I and Class III mandates.

In any event, no changes should be made during this compliance year.

**3. Class III ACP price to \$55**

SB 129 also seeks to increase the Class III ACP price to \$55. There is no market justification to increasing the Class III Subsidy especially given increases in capacity payments for existing resources.

As of June 2017, capacity payments will be increased to \$7.02 per kilowatt month. For a biomass plant, this equates to about \$12 per MWh. By 2019, this capacity payment rises to \$9.55 or around \$15 per MWh. For a Class III biomass facility, the revenue stream would be as follows:

	2017	2019
Energy Sales	\$35/mwh	\$35/mwh
REC Sales (current law)	\$45/mwh	\$45/mwh
Capacity Payment	\$12/mwh	\$15/mwh
Total	\$92/mwh	\$95/mwh

Increasing the Class III ACP to \$55 will drive up the cost of the Class III mandate by \$8.6 million dollars overnight. (Assumes 10.7 million MWh total load)

**4. Final Comments**

These changes, as proposed, may have no bearing on the Alexandria biomass circumstances. These changes, as proposed, could create significant uncertainty in the market, especially if enacted retroactively. Costs could be significant on ratepayers and negatively impact the Class I REC market.

Finally, SB 51 seeks to form a study committee to assess the costs of NH's RPS; HB 225 will increase the information available to you regarding how our RPS is met. I strongly encourage you to ITL SB 129 and let SB 51 and HB 225 deliver the information you need to make informed decisions about our RPS policy. SB 129, as written, appears to be reactive. Good policy never comes from reactive legislation. Thank you for listening.

Lisa Linowes - 603-838-6588 - [lisa@linowes.com](mailto:lisa@linowes.com)

## Stapler, Carol

---

**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 8:25 PM  
**To:** Stapler, Carol  
**Subject:** FW: SB129  
**Attachments:** Senate Bill 129 2017 testimony.pdf

Hi Carol:

For the record.

Dick

Representative Richard Barry

Chair: Science, Technology & Energy

---

**From:** [dennis\\_mckenney@comcast.net](mailto:dennis_mckenney@comcast.net) [dennis\_mckenney@comcast.net]  
**Sent:** Friday, April 14, 2017 1:08 PM  
**To:** ~House Science Technology and Energy  
**Cc:** Manley, Jonathan  
**Subject:** SB129

I want to take this opportunity to thank the committee for their attention to this bill and their patience at the recent public hearing. The speakers were many and the room was mighty warm. My testimony is attached. I would quickly call attention to a couple of points.

First, the forest products industry is supplied by landowners from Coos County to the Massachusetts border. My remarks include data from a client's property in Mason that borders the state line with Massachusetts.

Second, please take note of the percentage of the harvest revenue that resulted from biomass. The proportion is significant.

Third, the revenue from this Mason sale and the compiled data for NEFCo operations in NH, which are predominantly south of the White Mountain National Forest, are for stumpage. Stumpage represents the price paid the landowner by the purchaser for standing, not processed, timber.

Last, about 10% of this stumpage value is paid to the town as a timber tax. So, the timber tax revenue from 6 NEFCo foresters operating in New Hampshire over the period 2014-16 generated about \$863,000 in tax revenue to the respective towns. A loss of the biomass market would result in a drop of all stumpage prices with a corresponding loss of stumpage revenue to landowners like me and the landowners who employ us as well as a drop in tax revenue at the municipal level.

Thank you for your service to the citizens of NH and your time and attention to SB129. Please support passage of this bill.

Dennis D. McKenney, LPF #61/LLS #691  
Consulting Forester and Land Surveyor  
New England Forestry Consultants, Inc.  
569 North Bennington Road  
Bennington, NH 03442-4505  
603-588-2638 v/f 603-533-0283 cell  
[www.cforesters.com](http://www.cforesters.com) like us on Facebook

# 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](mailto:dennis_mckenney@comcast.net); [dreed@cforesters.com](mailto:dreed@cforesters.com)  
Internet: [www.cforesters.com](http://www.cforesters.com)

---

Friday, April 7, 2017

To: Representative Richard Barry, Chair  
NH House Science, Technology and Energy 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					
Year	Product			Value	average tons/MBF <sup>1</sup>
	Sawlogs, BF	Cords	Tons		
2016	11,695,000	5,990	97,234	\$2,633,635.00	8.52
2015	12,524,000	6,736	125,205	\$3,031,448.00	10.21
2014	13,066,000	12,061	97,548	\$2,968,780.00	7.84
<b>3 yr total</b>	<b>37,285,000</b>	<b>24,787</b>	<b>319,987</b>	<b>\$8,633,863.00</b>	<b>8.86</b>

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 <sup>1</sup>	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%
<b>total</b>	<b>478,580</b>	<b>167</b>	<b>7,618</b>	<b>\$ 114,557</b>	<b>16.64</b>	<b>1%</b>	<b>22%</b>	<b>23%</b>
other private tracts in Hillsborough County, NH					tons/MBF <sup>1</sup>	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.

CHAPTER 272

SB 218-FN – FINAL VERSION

03/21/12 1235s

03/21/12 1368s

17May2012... 2180h

06/06/12 2392CofC

06/06/12 2499EBA

2012 SESSION

12-2842

06/10

SENATE BILL *218-FN*

AN ACT relative to electric renewable portfolio standards.

SPONSORS: Sen. Bradley, Dist 3; Sen. Barnes, Jr., Dist 17; Sen. Lambert, Dist 13; Sen. Odell, Dist 8; Sen. Gallus, Dist 1; Sen. Forrester, Dist 2; Sen. Luther, Dist 12; Rep. Introne, Rock 3; Rep. Cataldo, Straf 3

COMMITTEE: Energy and Natural Resources

ANALYSIS

This bill modifies the electric renewable portfolio standards.

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-----  
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.

03/21/12 1235s

03/21/12 1368s

17May2012... 2180h

06/06/12 2392CofC



06/06/12 2499EBA

12-2842

06/10

STATE OF NEW HAMPSHIRE

*In the Year of Our Lord Two Thousand Twelve*

AN ACT relative to electric renewable portfolio standards.

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

272:1 Electric Renewable Portfolio Standards; Definitions; Eligible Biomass Technologies. Amend RSA 362-F:2, VIII(a) to read as follows:

(a) Has a quarterly average nitrogen oxide (NOx) emission rate of less than or equal to 0.075 pounds/million British thermal units (lbs/Mmbtu), and *either has* an average particulate emission rate of less than or equal to 0.02 lbs/Mmbtu as measured and verified under RSA 362-F:12 *or is participating in a plan approved by the department under RSA 362-F:11, IV for reductions in particulate matter emissions from other emission sources comparable to the difference between the generation unit's particulate matter emissions rate and the 0.02 lbs/Mmbtu rate*; and

272:2 Definitions; Renewable Energy Source; Useful Thermal Energy. Amend RSA 362-F:2, XV to read as follows:

XV. "Renewable energy source," "renewable source," or "source" means a class I, II, III, or IV source of electricity or ~~electricity displacement by a class I source under RSA 362-F:4, I(e)~~ **a class I source of useful thermal energy**. An electrical generating facility, while selling its electrical output at long-term rates established before January 1, 2007 by orders of the commission under RSA 362-A:4, shall not be considered a renewable source.

***XV-a. "Useful thermal energy" means renewable energy delivered from class I sources that can be metered and that is delivered in New Hampshire to an end user in the form of direct heat, steam, hot water, or other thermal form that is used for heating, cooling, humidity control, process use, or other valid thermal end use energy requirements and for which fuel or electricity would otherwise be consumed.***

272:3 Minimum Electric Renewable Portfolio Standards. Amend RSA 362-F:3 to read as follows:

362-F:3 Minimum Electric Renewable Portfolio Standards. For each year specified in the table below, each provider of electricity shall obtain and retire certificates sufficient in number and class type to meet or exceed the following percentages of total megawatt-

hours of electricity supplied by the provider to its end-use customers that year, except to the extent that the provider makes payments to the renewable energy fund under RSA 362-F:10, II:

2008 2009 2010 2011 2012 2013 2014 2015 2025

Class I 0.0% 0.5% 1% 2% 3% 4% 5% 6% [~~16%~~] **15%** (\*)

Class II 0.0% 0.0% 0.04% 0.08% 0.15% 0.2% 0.3% 0.3% 0.3%

Class III 3.5% 4.5% 5.5% 6.5% 6.5% 6.5% [~~6.5%~~] **7.0%** [~~6.5%~~] **8.0%** [~~6.5%~~] **8.0%**

Class IV 0.5% 1% 1% 1% 1% [~~1%~~] **1.3%** [~~1%~~] **1.4%** [~~1%~~] **1.5%** [~~1%~~] **1.5%**

\*Class I increases an additional [~~one~~] **0.9** percent per year from 2015 through 2025. *A set percentage of the class I totals shall be satisfied annually by the acquisition of renewable energy certificates from qualifying renewable energy technologies producing useful thermal energy as defined in RSA 362-F:2, XV-a. The set percentage shall be 0.2 percent in 2013, 0.4 percent in 2014, and increased annually by 0.2 percent per year from 2015 through 2025.* Classes II-IV remain at the same percentages from 2015 through 2025 except as provided in RSA 362-F:4, V-VI.

272:4 Electric Renewable Energy Classes. Amend the introductory paragraph of RSA 362-F:4, I to read as follows:

I. Class I (New) shall include the production of electricity *or useful thermal energy* from any of the following, provided the source began operation after January 1, 2006, except as noted below:

272:5 Electric Renewable Energy Classes. Amend RSA 362-F:4, I(b) to read as follows:

(b) Geothermal energy, *if the geothermal energy output is in the form of useful thermal energy only if the unit began operation after January 1, 2013.*

272:6 Electric Renewable Energy Classes. Amend RSA 362-F:4, I(g) to read as follows:

(g) [~~The equivalent displacement of electricity, as determined by the commission, by end-use customers, from solar hot water heating systems used instead of electric hot water heating~~] *Solar thermal energy; if the solar thermal energy output is in the form of useful thermal energy only if the unit began operation after January 1, 2013.*

272:7 Electric Renewable Energy Classes. Amend RSA 362-F:4, I(j) to read as follows:

(j) The production of electricity from a class III or IV source that has begun operation as a new facility by demonstrating that 80 percent of its resulting tax basis of the source's plant and equipment, but not its property and intangible assets, is derived from capital investment directly related to restoring generation or increasing capacity including department permitting requirements for new plants. Such production shall not qualify for class III or IV certificates. *Commencing July 1, 2013, a class III source eligible*

*as a class I source under this subparagraph or subparagraph (i) may submit a notice to the commission electing to be a class III source instead of a class I source. Once such notice is given, the production from such a source shall qualify for class III certificates, provided the source meets the other requirements of a class III eligible biomass technology.*

*(k) The production of electricity from any fossil-fueled generating facility that originally commenced operation prior to January 1, 2006, if after January 1, 2012 such facility co-fires with class I eligible biomass fuels to displace the combustion of an amount of fossil fuels. The portion of the total electrical energy output that qualifies as class I from a facility in a given time period shall be the fraction of electrical production derived from the combustion of biomass fuels based on the heat input at the facility in that time period as determined by the commission in consultation with the department. To qualify under this paragraph, the electricity generation facility that co-fires with biomass fuels shall:*

*(1) Either have a quarterly average nitrogen oxide (NO<sub>x</sub>) emission rate, as measured and verified under RSA 362-F:12, of less than or equal to 0.075 pounds/million British thermal units (lbs/Mmbtu) or be a participant in a plan approved by the department for reductions in NO<sub>x</sub> from other emission sources. The quantity of reductions required shall be the fraction of electrical production derived from the combustion of biomass fuels, as determined under this paragraph, multiplied by the difference between the generation unit's NO<sub>x</sub> emissions rate and the 0.075 lbs/Mmbtu rate. The plan shall contain reductions, in the aggregate or individually, in NO<sub>x</sub> emissions from other emission sources under the jurisdiction of the department and demonstrate that the reductions will be quantifiable. The department shall expeditiously review the plan and, if approved, provide such information as it deems relevant to the commission. The application submitted to the commission under RSA 362-F:11 shall inform the commission of the plan and the commission shall certify the source in accordance with the plan approved by the department; and*

*(2) Either have an average particulate emission rate, as measured and verified under RSA 362-F:12, of less than or equal to 0.02 lbs/Mmbtu or be a participant in a plan approved by the department for reductions in particulate matter emissions from emission sources owned by or affiliated with the co-firing entity. The quantity of reductions required shall be the fraction of electrical production derived from the combustion of biomass fuels, as determined under this paragraph, multiplied by the difference between the generation unit's particulate matter emissions rate and the 0.02 lbs/Mmbtu rate. The plan shall contain reductions, in the aggregate or individually, in particulate matter emissions from other emission sources under the jurisdiction of the department and demonstrate that the reductions will be quantifiable. The department shall expeditiously review the plan and, if approved, provide such information as it deems relevant to the commission. The application submitted to the commission under RSA 362-F:11 shall inform the commission of the plan and the*

*commission shall certify the source in accordance with the plan approved by the department.*

*(1) Biomass renewable energy technologies producing useful thermal energy that began operation after January 1, 2013 provided that:*

*(1) If the unit is a biomass unit rated between 3 and 30 Mmbtu/hr design gross heat input, and has an average particulate emission rate of less than or equal to 0.10 lbs/Mmbtu as measured and verified by conducting and reporting the results of a one-time initial stack test in accordance with methods approved by the department;*

*(2) If the unit is a biomass unit rated equal to or greater than 30 Mmbtu/hr design gross heat input, and has an average particulate emission rate of less than or equal to 0.02 lbs/Mmbtu as measured and verified under RSA 362-F:12;*

*(3) If the unit is a biomass unit rated less than 100 Mmbtu/hr design gross heat input, and it implements best management practices as determined by the department; and*

*(4) If the unit is a biomass unit rated equal to or greater than 100 Mmbtu/hr design gross heat input, and it has a quarterly average NOx emission rate of less than or equal to 0.075 Mmbtu/hr as measured and verified under RSA 362-F:12.*

272:8 Renewable Energy Portfolio; Purchased Power Agreements. No provision of RSA 362-F shall be construed to affect the cost recovery of any contract or agreement entered into pursuant to RSA 362-F:9 prior to the effective date of this act. Such contract or agreement shall be governed by the commission's order approving the same.

272:9 Electric Renewable Energy Classes. Amend RSA 362-F:4, IV(a) to read as follows:

IV.(a) Class IV (Existing Small Hydroelectric) shall include the production of electricity from hydroelectric energy, provided the facility:

*(1) Began operation prior to January 1, 2006[-];*

*(2) When required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects; and*

*(3) Either:*

*(A) Has a total nameplate capacity of 5 MWs or less as measured by the sum of the nameplate capacities of all the generators at the facility[-] and has actually installed both upstream and downstream diadromous fish passages and such installations have been approved by the Federal Energy Regulatory Commission, [and when required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects] or;*

***(B) Has a total nameplate capacity of one MW or less as measured by the sum of the nameplate capacities of all generators at the facility, is in compliance with applicable Federal Energy Regulatory Commission fish passage restoration requirements, and is interconnected with an electric distribution system located in New Hampshire.***

272:10 Renewable Energy Certificates. Amend RSA 362-F:6, II to read as follows:

***II. The commission shall establish procedures by which electricity **and useful thermal energy** production not tracked by ISO-New England from customer-sited sources, including behind the meter production, may be included within the certificate program, provided such sources are located in New Hampshire. The procedures may include the aggregation of sources and shall be compatible with procedures of the certificate program administrator, **where possible**. The production shall be monitored and verified by an independent entity designated by the commission, which may include electric distribution companies, **or by such other means as the commission finds adequate in verifying that such production is occurring.*****

***II-a. The commission shall establish a methodology to estimate the total yearly production for customer-sited sources that are net metered under RSA 362-A:9 and for which class I or II certificates are not issued. For purposes of estimation, the commission shall use a capacity factor rating of 20 percent for each installation and shall keep class II production separate from class I production. Providers of electricity required to obtain and retire certificates under RSA 362-F:3 shall receive an annual credit for such production. By February 28 of each year, the commission shall compute and make public credit percentages that are equal to the estimated production for the prior calendar year in each class divided by the total amount of electricity supplied by providers of electricity to end-use customers in the prior calendar year, with the result converted to a percentage. Each provider may then, at the time of its annual report filing under RSA 362-F:8, claim a class I and a class II certificate credit equal to the credit percentage times the total megawatt-hours of electricity supplied by the provider to its end-use customers the prior calendar year.***

272:11 New Paragraph; Renewable Energy Certificates. Amend RSA 362-F:6 by inserting after paragraph IV the following new paragraph:

***V. A qualified producer of useful thermal energy shall provide for the metering of useful thermal energy produced in order to calculate the quantity of megawatt-hours for which renewable energy certificates are qualified, and to report to the public utilities commission under rules adopted pursuant to RSA 362-F:13. Monitoring, reporting, and calculating the useful thermal energy produced in each quarter shall be expressed in megawatt-hours, where each 3,412,000 BTUs of useful thermal energy is equivalent to one megawatt-hour.***

272:12 Sale, Exchange, and Use of Certificates. Amend RSA 362-F:7, I to read as follows:

I. A certificate may be sold or otherwise exchanged by the source to which it was initially issued or by any other person or entity that acquires the certificate. A certificate may only be used once for compliance with the requirements of this chapter. It may not be used for compliance with this chapter if it has been or will be used for compliance with any similar requirements of another non-federal jurisdiction, or otherwise sold, retired, claimed, or represented as part of any other electrical energy output or sale. Certificates shall only be used by providers of electricity for compliance with the requirements of RSA 362-F:3 in the year in which the generation represented by the certificate was produced, except that unused certificates of the proper class issued for production during the prior 2 years [~~or the first quarter of the subsequent year~~] may be used to meet up to 30 percent of a provider's requirements for a given class obligation in the current year of compliance.

272:13 Renewable Energy Fund. Amend RSA 362-F:10, I-III to read as follows:

I. There is hereby established a renewable energy fund. This nonlapsing, special fund shall be continually appropriated to the commission to be expended in accordance with this section. The state treasurer shall invest the moneys deposited therein as provided by law. Income received on investments made by the state treasurer shall also be credited to the fund. All payments to be made under this section shall be deposited in the fund. The moneys paid into the fund under paragraph II of this section, excluding class II moneys, shall be used by the commission to support thermal and electrical renewable energy initiatives. Class II moneys shall only be used to support solar energy technologies in New Hampshire. All initiatives supported out of these funds shall be subject to audit by the commission as deemed necessary. All fund moneys including those from class II may be used to administer this chapter, but all new employee positions shall be approved by the fiscal committee of the general court. *No new employees shall be hired by the commission due to the inclusion of useful thermal energy in class I production.*

II. In lieu of meeting the portfolio requirements of RSA 362-F:3 for a given year if, and to the extent sufficient certificates are not otherwise available at a price below the amounts specified in this paragraph, an electricity provider may, at the time of report submission for that year under RSA 362-F:8, make payment to the commission at the following rates for each megawatt-hour not met for a given class obligation through the acquisition of certificates:

(a) Class I—~~[\$57.12,]~~ *\$55, except for that portion of the class electric renewable portfolio standards to be met by qualifying renewable energy technologies producing useful thermal energy under RSA 362-F:3 which shall be \$25 beginning January 1, 2013.*

(b) Class II—~~[\$150]~~ *\$55.*

(c) Class III—~~[\$28]~~ *\$31.50.*

(d) Class IV—~~[\$28]~~ *\$26.50.*

III. Beginning in [~~2008~~] **2013**, the commission shall adjust these rates by January 31 of each year using the Consumer Price Index as published by the Bureau of Labor Statistics of the United States Department of Labor *for classes III and IV and ½ of such Index for classes I and II.*

272:14 Renewable Energy Fund. Amend RSA 362-F:10, X to read as follows:

X. Consistent with RSA 362-F:10, VI, the commission shall, over each 2-year period commencing July 1, 2010, reasonably balance overall amounts expended, *allocated, or obligated* from the fund, net of administrative expenditures, between residential and nonresidential sectors. Funds from the renewable energy fund awarded to renewable projects in the residential sector shall be in approximate proportion to the amount of electricity sold at retail to that sector in New Hampshire, and the remaining funds from the renewable energy fund shall be awarded to projects in the nonresidential sector which include commercial and industrial sited renewable energy projects, existing generators, and developers of new commercial-scale renewable generation in New Hampshire.

272:15 New Paragraph; Application. Amend RSA 362-F:11 by inserting after paragraph III the following new paragraph:

IV. A biomass facility otherwise meeting the eligibility requirements of class III, but which as of January 1, 2012 was not an eligible biomass technology due to the inability to achieve the particulate matter emissions rate specified in RSA 362-F:2, VIII(a), may consult with the department and submit a plan to meet the alternative requirement under that paragraph. The plan shall contain reductions, in the aggregate or individually, in emissions from other emission sources and demonstrate that the reductions will be quantifiable. The department shall expeditiously review the plan and, if approved, provide such information it deems relevant to the commission. The application submitted under this section shall inform the commission of the plan and the commission shall certify the source in accordance with the plan approved by the department.

272:16 New Paragraph; Rulemaking. Amend RSA 362-F:13 by inserting after paragraph VI the following new paragraph:

VI-a. Adopt procedures for the metering, verification, and reporting of useful thermal energy output.

272:17 New Paragraph; Rulemaking. Amend RSA 362-F:13 by inserting after paragraph VII the following new paragraph:

VIII. The department may adopt rules, under RSA 541-A, to determine best management practices for qualifying renewable energy technologies producing useful thermal energy.

272:18 New Section; Phase-In for Existing Supply Contract Load. Amend RSA 362-F by inserting after section 13 the following new section:

362-F:14 Phase-In for Existing Supply Contract Load. The increases in the annual purchase percentages in RSA 362-F:3 as compared to those in effect as of January 1, 2012 shall apply to the electrical load under any electrical power supply contracts for a term of years entered into by providers of electricity prior to or on July 1, 2012, upon the expiration of the term of any such contract. Providers of electricity shall inform the commission by July 1 of each year of all such contracts and their terms, including but not limited to the execution date and expiration date of the contract and the annual volume of electrical energy supplied.

272:19 Effective Date. This act shall take effect upon its passage.

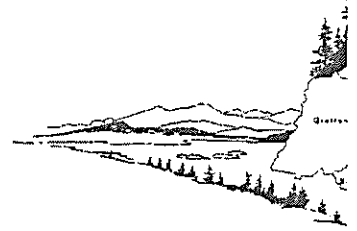
Approved: June 19, 2012

Effective Date: June 19, 2012



**North Country**  
**Resource Conservation and Development Area Council, Inc.**  
**P.O. Box 870, Meredith, New Hampshire, 03253**  
**Phone: 603-279- 5340 Email: ncrcd.info@gmail.com**  
**Website: www.nhrcd.net**

*Bringing people, ideas and resources together*



North Country RC&D, prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. NCRC&D is a 501c3 nonprofit, equal opportunity provider and employer.

## Stapler, Carol

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**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:28 PM  
**To:** Stapler, Carol  
**Subject:** FW: Senate Bill 129  
**Attachments:** SB129letter.doc

Carol:

One more

Dick

Representative Richard Barry

Chair: Science, Technology & Energy

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**From:** Rick DeMark [nrcrd.rick@gmail.com]  
**Sent:** Monday, April 10, 2017 7:38 AM  
**To:** ~House Science Technology and Energy  
**Subject:** Senate Bill 129

Please enter the following letter into testimony for Senate Bill 129.

April 8, 2017

Representative Richard Barry, Chairman  
N.H. House of Representatives Science, Technology, and Energy Committee  
New Hampshire Legislative Office Building, Room 304  
Concord, NH 03301

RE: SB 129

Dear Chairman Barry and entire Science, Technology and Energy Committee,

The North Country RC&D is a non-profit organization located in Meredith, NH and serves all of NH. We have been an active participant in the development and maintenance of critical low grade wood markets and wood biomass energy for the past 35 years.

SB 129 fixes a flaw in the N.H. Renewable Portfolio Standard (RPS) law, specifically the biomass renewable energy certificate (REC) pricing for the six independent biomass plants. It is vital to pass this bill to keep these plants operating ensuring a more diverse energy mix and to maintain low grade wood markets for NH landowners and mills.

SB 129 is NOT a costly subsidy and this opinion ignores the benefits of wood biomass energy and the low grade wood markets it supports. The biomass provisions of the N.H.'s RPS law bring a great return on investment. Although there is a cost, which is less than a utility's budget for tree trimmings, it is far exceeded by the value of the jobs and economic activity the six biomass power plants sustain in the state. The corrections to the RPS SB 129 makes will assist New

Hampshire's six independent biomass power plants to continue operating and purchasing wood chips (1.2 million tons/year). From their operation, the state and local economy realizes the following benefits:

- 931 jobs in the power plants, forest and local communities (\$50.9 million in annual payroll)
- \$254 million in annual economic activity
- \$7.3 million in annual tax and fee revenues paid to state and local government
- Provides a market for low-grade timber for forestry/logging operations
- Provides a market for sawmill waste (sawdust and chipped slabs),
- Provides a market for urban and residential tree trimming.

Please support SB 129

Sincerely,

Russ Dowd, Chairman, North Country RC&D  
Madison, NH

## Stapler, Carol

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**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:25 PM  
**To:** Stapler, Carol  
**Subject:** FW: Sig Sauer - SB 129 Letter of Opposition  
**Attachments:** Sig Sauer SB 129 STE Oppose Letter FINAL 04-10-2017.pdf

Hi Carol:

One more for the files.

Dick

Representative Richard Barry

Chair: Science, Technology & Energy

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**From:** David Cuzzi [david.cuzzi@prospecthillstrategies.com]  
**Sent:** Monday, April 10, 2017 4:34 PM  
**To:** ~House Science Technology and Energy  
**Cc:** David Cuzzi; Anderson, Joel; Stapler, Carol  
**Subject:** Sig Sauer - SB 129 Letter of Opposition

Chairman Barry and Members of the STE Committee-

Attached, please find a letter from Sig Sauer opposing SB 129, regarding the Renewable Portfolio Standard. Please note that the company is not opposed to the portion of the bill aimed at setting aside a portion of the Renewable Energy Fund for low and moderate income residents to install solar panels.

As always, please let me know if you have any questions. Thank you for your considerations.

Respectfully Submitted,

Dave Cuzzi

**David J. Cuzzi, President**  
PROSPECT HILL STRATEGIES  
1000 Elm St. #174  
Manchester, NH 03105-0174  
(603) 716-0569  
[www.prospecthillstrategies.com](http://www.prospecthillstrategies.com)  
@prospecthillstg



## Stapler, Carol

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**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:24 PM  
**To:** Stapler, Carol  
**Subject:** FW: BAE Systems - SB 129 Letter of Opposition  
**Attachments:** BAE Systems SB 129 STE Oppose Letter FINAL 04-10-2017.pdf

Hi Carol:

One more for the files.

Dick

Representative Richard Barry

Chair: Science, Technology & Energy

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**From:** David Cuzzi [david.cuzzi@prospecthillstrategies.com]  
**Sent:** Monday, April 10, 2017 6:12 PM  
**To:** ~House Science Technology and Energy  
**Cc:** David Cuzzi; Anderson, Joel; Stapler, Carol  
**Subject:** BAE Systems - SB 129 Letter of Opposition

Chairman Barry and Members of the STE Committee-

Attached, please find a letter from BAE Systems opposing SB 129, regarding the Renewable Portfolio Standard. Please note that the company is not opposed to the portion of the bill aimed at setting aside a portion of the Renewable Energy Fund for low and moderate income residents to install solar panels.

As always, please let me know if you have any questions. Thank you for your consideration.

Respectfully Submitted,

Dave Cuzzi

**David J. Cuzzi, President**  
PROSPECT HILL STRATEGIES  
1000 Elm St. #174  
Manchester, NH 03105-0174  
(603) 716-0569  
[www.prospecthillstrategies.com](http://www.prospecthillstrategies.com)  
@prospecthillstg

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



April 10, 2017

The Honorable Richard Barry, Chairman  
House Science, Technology & Energy Committee  
Legislative Office Building, Room 305  
33 N. State Street  
Concord, NH 03301

RE: Opposition to SB 129

Dear Chairman Barry:

BAE Systems opposes SB 129. 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 relative to electric renewable energy classes and the class rate for biomass.

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 House to further advance legislation which knowingly increases electricity costs while doing nothing to increase affordable, reliable energy supplies is counterproductive. We hope you and your colleagues 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 H. Montminy", is written over a light blue horizontal line.

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

## Stapler, Carol

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**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:23 PM  
**To:** Stapler, Carol  
**Subject:** FW: SB 129

Hi Carol:

One more for the files.

Dick

Representative Richard Barry

Chair: Science, Technology & Energy

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**From:** [spatten@thetimberhound.com](mailto:spatten@thetimberhound.com) [spatten@thetimberhound.com]  
**Sent:** Tuesday, April 11, 2017 6:46 AM  
**To:** ~House Science Technology and Energy  
**Subject:** SB 129

Greetings Committee members,

I am writing this message in support of Senate Bill 129, as a fourth generation NH logger and current manager of a NH sawmill. Though small in comparison to many NH sawmills, employing only six full time, Pine Tree Lumber has been a unique asset to the Town of Lempster, Sullivan County and the entire NH forest products industry for over four decades. The life line of this operation, which produces roughly two million board feet of industrial hardwood lumber annually, is sound, sustainable forest management; a practice which will become much more difficult, and in some cases, impossible, without passage of SB 129, altering the Renewable Portfolio Standards. Without stable markets for the otherwise un-merchantable forest products generated during a timber harvest, the industrial grade sawlogs and higher valued products will no longer be readily available in the local market. Landowners and managers will simply no longer be able to continue the silvicultural practices that make NH's forests uniquely productive.

Thank you for accepting this perspective, and I strongly urge you to support Senate Bill 129.

Steven Patten, General Manager at Pine Tree Lumber, Lempster, NH  
(603)748-1094



## Stapler, Carol

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**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:23 PM  
**To:** Stapler, Carol  
**Subject:** FW: State Senate Bill 129  
**Attachments:** CCF04112017.pdf

Hi Carol:

One more for the files.

Dick  
Representative Richard Barry

Chair: Science, Technology & Energy

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**From:** Rebecca Crowe [rcrowetwolf@gmail.com]  
**Sent:** Tuesday, April 11, 2017 8:16 AM  
**To:** ~House Science Technology and Energy  
**Subject:** State Senate Bill 129

Representative Richard Barry, Chairman  
NH House of Representatives Science, Technology and Energy Committee

PLEASE SUPPORT BILL 129 - Biomass power and RPS fix.

Timberwolf Logging LLC  
Go Green Wood Products LLC  
Po Box 455  
Littleton NH 03561

April 10<sup>th</sup> 2017

Representative Richard Barry, Chairman  
NH House of Representatives Science, Technology and Energy Committee  
New Hampshire Legislative Office Building, Room 304  
Concord NH 03301

Representative Barry, and Committee members,

Please support Senate Bill 129.

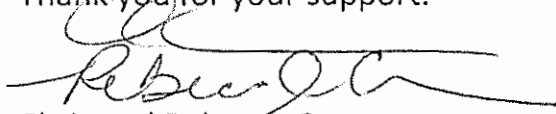
We own a few small companies operating out of Littleton. We have been in the logging business since 1986. Following in my father's footsteps. We work throughout the entire state of NH, from West Stewartstown to Londonderry and from Conway to Lebanon. We purchase private sales, State sales and purchase land ourselves. We average 20-22 employees at any given time. We currently have five sets of father and sons working for us. Most of our employees live within a ten mile radius of our business. Last year our payroll was approximately \$920,000. As our employees all live in our community the income they receive from our business is reinvested in New Hampshire.

We also hire subcontractors throughout the year mostly for trucking purposes. Last year we paid over \$670,000 to subcontractors. We try to buy local as local as possible. Our expenses last year were over \$6,000,000. This figure includes payroll and subcontractors above, fuel, vehicle registrations, stumpage to landowners, local welding shops, part stores, timber tax new equipment purchases and much more.

Last year we moved approximately 6,885,000 mbf and 68,600tons of wood. We currently own approximately 900+- acres of timberland in New Hampshire.

We strongly support Senate Bill 129 as it is imperative to our business in New Hampshire. We have recently felt the economic pinch from Maine's lack of biomass facilities as Maine logging operations flood our markets. Please support this Bill as losing the Biomass plants in New Hampshire would be devastating to the entire state.

Thank you for your support.

A handwritten signature in black ink, appearing to read "Rebecca Crowe", with a long horizontal flourish extending to the right.

Chris and Rebecca Crowe  
603-444-7115

## Stapler, Carol

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**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:21 PM  
**To:** Stapler, Carol  
**Subject:** FW: Support for SB 129  
**Attachments:** SB 129.pdf; SB 129-Tom Ryan.pdf

Hi Carol:

One more for the files.

Dick

Representative Richard Barry

Chair: Science, Technology & Energy

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**From:** Marlo Herrick [marlohflc@tds.net]  
**Sent:** Tuesday, April 11, 2017 11:48 AM  
**To:** ~House Science Technology and Energy  
**Subject:** Support for SB 129

We are in support of SB 129. If you could please take a minute and review our testimony to why this bill is so important to the overall economics in N.H. that would be greatly appreciated.  
Thank-you for your service to our state.

Dave and Marlo Herrick  
Hopkinton Forestry & Land Clearing, Inc.  
88 State Shed Rd.  
PO Box 2089  
Henniker, NH 03242  
603-428-8400 phone  
603-428-3663 fax

Dear Representative Barry,

My name is Tom Ryan and I reside in Henniker.

As a Licensed Professional Forester with nearly 40 years of experience, I am testifying in favor of SB 129.

I am the company Forester with Hopkinton Forestry & Land Clearing. The company employs 28 people as loggers, mechanics, truck drivers, and support staff such as myself. We conduct Forestry operations for private landowners, state foresters, as well as consulting foresters.

With approximately \$5 million dollars of equipment invested in mechanical whole tree chipping, the company is committed to proper forestry techniques made available through the biomass markets.

Due to the biomass market, many properties that normally would not be placed under management due to low value timber, are now properly thinned and are set up for periodic harvests. Properties that would lose the timber value to development being locked in amongst houses, now can be harvested yet maintain the aesthetics of the property with chipping the tops for a clean forest floor.

Markets that didn't exist when I first entered the profession kept us from thinning hemlock stands. A property I supervised the cutting on 30 years ago was just recently thinned in that hemlock stand, thanks to the biomass markets.

One recent job entailed clearing a large over mature pine stand to convert the property to field for corn silage for our dairy farm customer. The cost of stumping was much lower due to the biomass market. There were 160 trees that were dead that were utilized and paid for not to mention all of the top material. Our customer was able to be a dairy farmer actually making a profit (from timber).

There are many other instances where the biomass market has helped many of our clients over the years, but to avoid redundancy, I will be brief and ask you to support a bill that is very favorable to the forestry community, and allows me to support my family.

Respectfully submitted,

Tom Ryan  
Licensed Forester; NH # 41

A handwritten signature in black ink that reads "Tom Ryan" followed by a long horizontal flourish line extending to the right.



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

April 10, 2017

Rep. Richard Barry, Chairman  
N.H. House Science, Technology and Energy Committee  
Room 304 Legislative Office Building  
Concord, NH 03301

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 NH Business owners for 26 years. We are testifying in favor of SB 129.

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. 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. 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.

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. We would ask you to support bill SB 129.

Thank you the opportunity to testify before your committee and your service to the State.

Dave and Marlo Herrick

## Stapler, Carol

---

**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:20 PM  
**To:** Stapler, Carol  
**Subject:** FW: NHSEA testimony on SB 129  
**Attachments:** NHSEA Testimony for SB 129\_2017.docx

Hi Carol:

One more statement.

Dick

Representative Richard Barry

Chair: Science, Technology & Energy

---

**From:** Kate Epsen [kate.epsen@gmail.com]  
**Sent:** Wednesday, April 12, 2017 10:21 AM  
**To:** ~House Science Technology and Energy  
**Subject:** NHSEA testimony on SB 129

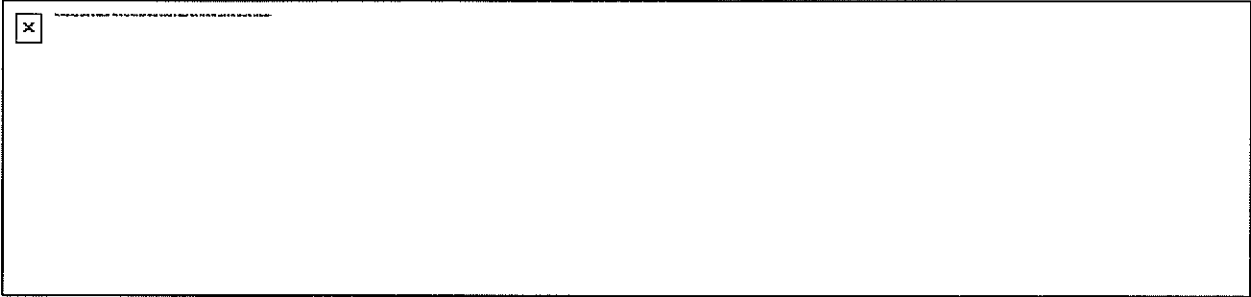
Dear Chairman Barry, Vice-Chairman Richardson and Members of the Committee,

*(If you can't view the tables pasted below, testimony is also attached below as an MS Word document)*

On behalf of the NH Sustainable Energy Association, I ask that you please support SB 129. Supporting the biomass resources in NH and increasing the solar class II requirements from 0.3% to 1% is good for NH and for ALL customers—businesses and residential customers alike. The other consumer protection provisions and low-income assistance from the Renewable Energy Fund are also essential pieces of this legislation and will benefit our state.

The tables below help to illustrate wholesale market savings for all ratepayers that can result from having solar resources on the system at the times of peak demand. Using these data points from ISO-NE, a demand reduction of about 700 MW attributable to solar resources, occurring over multiple peak days throughout the summer, **can save NH ratepayers on average of \$8.4 million per year.**





As described in the 2017 ISO-NE CELT (Capacity, Energy, Loads, and Transmission) Report, last year's New England wide system peak occurred on August 12, 2016. The peak occurred at hour ending 15:00, **resulting in more Behind-the-Meter solar PV load reduction (717 MW) than forecast (423 MW).**

There are significant solar jobs in NH that this legislation will help to continue to grow and retain:

- 1,184 jobs
- 67 solar companies. These companies also pay BPT, BET and property taxes across our state. They also pay good wages and attract young and entrepreneurial workers.
- The NH Solar jobs growth rate in 2016 was 62%.

NHSEA supports the Low Income carve out from the Renewable Energy Fund (REF):

- A few good examples of how the REF can benefit low-income customer include:
  - Installing solar or biomass projects for Housing Authorities, ROCs and non-profits that directly benefit customers, e.g. Maple Manor in Newport, NH.
  - Providing credit enhancements and incentive adders, including loan-loss reserve funds, interest rate buy-downs and help accessing credit/financing for low credit-score consumers.

Additionally, eliminating the arbitrary 10 kW threshold currently set for the residential solar rebate program buys more supply capacity for same amount of ratepayer REF funds, and lessens administrative inefficiencies for the PUC and customers. This change would also reflect the growing electrification of our energy use (e.g. EVs, heat pumps, etc.)

**Please retain the components of the bill that address the solar resources and Renewable Energy Fund. These are essential components of this comprehensive legislation and will benefit NH's economy, its businesses and its citizens.**

Sincerely,

Kate Epsen

--

Executive Director  
NH CleanTech Council-NHSEA  
14 Dixon Ave  
Concord, NH 03301  
Tel. 603-777-7700  
[www.nhsea.org](http://www.nhsea.org)  
[www.nhcleantechcouncil.org](http://www.nhcleantechcouncil.org)

## Stapler, Carol

---

**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:20 PM  
**To:** Stapler, Carol  
**Subject:** FW: Bill129, unable to speak at meeting. Wood lot owner

Hi Carol:

One more

Dick

Representative Richard Barry

Chair: Science, Technology & Energy

---

**From:** Rydstrom\_Lorin [lorin.rydstrom@fctg.com]  
**Sent:** Tuesday, April 11, 2017 8:33 PM  
**To:** Barry, Richard  
**Subject:** Bill129, unable to speak at meeting. Wood lot owner

Dear Honorable Chairman Barry,

I was at the hearing but forced to depart before my card was called.

Briefly, As the owner of 500 acres that I desire to leave to my grandchildren, I need to pay the taxes and get a small return of some sort financially on the investment. Without a low grade wood market the only real option is to sell it off in smaller parcels of 30-50 acres over the years and hope there is some left for the kids.

That **forest fragmentation is the worst thing possible for commercial forest management, wildlife management, and good land use planning.** Doesn't do much for tourism either for those that want to see a NH forest or wooded hillside without camps and houses.

Thanks for your time and energy on this.

Do not hesitate to forward this to committee if you feel appropriate as new information.

Lorin Rydstrom, 124 Dow Rd. Hollis NH 03049  
0-603-465-2555  
c-603-321-4581

## Stapler, Carol

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**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:20 PM  
**To:** Stapler, Carol  
**Subject:** FW: NHSEA testimony on SB 129  
**Attachments:** NHSEA Testimony for SB 129\_2017.docx

Hi Carol:

One more statement.

Dick

Representative Richard Barry

Chair: Science, Technology & Energy

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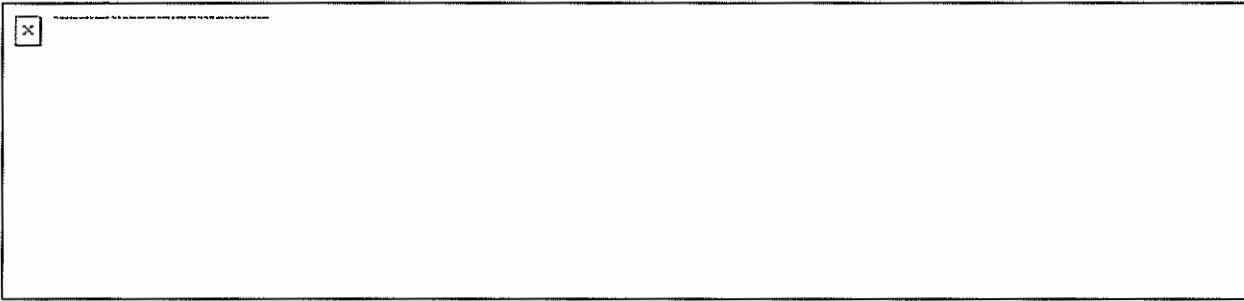
**From:** Kate Epsen [kate.epsen@gmail.com]  
**Sent:** Wednesday, April 12, 2017 10:21 AM  
**To:** ~House Science Technology and Energy  
**Subject:** NHSEA testimony on SB 129

Dear Chairman Barry, Vice-Chairman Richardson and Members of the Committee,

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On behalf of the NH Sustainable Energy Association, I ask that you please support SB 129. Supporting the biomass resources in NH and increasing the solar class II requirements from 0.3% to 1% is good for NH and for ALL customers—businesses and residential customers alike. The other consumer protection provisions and low-income assistance from the Renewable Energy Fund are also essential pieces of this legislation and will benefit our state.

The tables below help to illustrate wholesale market savings for all ratepayers that can result from having solar resources on the system at the times of peak demand. Using these data points from ISO-NE, a demand reduction of about 700 MW attributable to solar resources, occurring over multiple peak days throughout the summer, **can save NH ratepayers on average of \$8.4 million per year.**



As described in the 2017 ISO-NE CELT (Capacity, Energy, Loads, and Transmission) Report, last year's New England wide system peak occurred on August 12, 2016. The peak occurred at hour ending 15:00, **resulting in more Behind-the-Meter solar PV load reduction (717 MW) than forecast (423 MW).**

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Additionally, eliminating the arbitrary 10 kW threshold currently set for the residential solar rebate program buys more supply capacity for same amount of ratepayer REF funds, and lessens administrative inefficiencies for the PUC and customers. This change would also reflect the growing electrification of our energy use (e.g. EVs, heat pumps, etc.)

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Sincerely,

Kate Epsen

--

Executive Director  
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14 Dixon Ave  
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Tel. 603-777-7700  
[www.nhsea.org](http://www.nhsea.org)  
[www.nhcleantechcouncil.org](http://www.nhcleantechcouncil.org)

## Stapler, Carol

---

**From:** Barry, Richard  
**Sent:** Monday, April 17, 2017 9:19 PM  
**To:** Stapler, Carol  
**Subject:** FW: Thank you and SB129

Hi Carol:

Another statement for the files.  
Dick

Representative Richard Barry

Chair: Science, Technology & Energy

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**From:** Ted Vansant [ted@necsolarservices.com]  
**Sent:** Wednesday, April 12, 2017 10:27 AM  
**To:** ~House Science Technology and Energy  
**Subject:** Thank you and SB129

Dear NH House ST&E Committee, I attended yesterday afternoon's session on SB129 and I first want to thank you all for your hard work and willingness to have every voice heard. It was a long and hot afternoon and your service is very much appreciated.

I arrived at the meeting ½ hour early and stayed for 2 ½ hours of the meeting but had to leave for a prior commitment before my name was called to speak so I'm e-mailing my comments.

I am the owner of New England Commercial Solar Services, a small company in Holderness, NH that designs and builds commercial scale solar projects.

My main message is that the Solar Industry provides broad and diverse economic benefits to our state. The Solar industry is not just a few well-meaning environmentalists bolting solar panels to roofs, instead we are part of a vibrant and growing clean-tech industry that already brings a lot of benefits to the state and is poised to do significantly more;

I want to share with you some examples. My tiny little company is currently working on about 6 active projects in NH. These include;

- a. public schools
- b. towns
- c. a prison

- d. an organization that deals in substance abuse
- e. A university
- f. And several businesses.

All of these organizations will benefit from lower electricity costs helping them keep the doors open and making them more competitive. That's pretty good in its own right but the economic impact beneath the surface is what I really want to tell you about today. Each one of these projects involves a host of professionals working on various aspects of the project, including;

- g. Bankers who make money off loans and in turn give back to the community
- h. Engineers. This includes the young people doing design and drawings and the field engineers doing surveys and wetlands work.
- i. Legal professionals working on contracts and permitting
- j. Rental companies who rent the fork trucks and cranes and construction equipment
- k. Roofing contractors for rooftop projects
- l. Electrical contractors who install the equipment
- m. Excavation contractors for ground mounted projects
- n. Fence contractors
- o. Landscape contractors to ensure that ground based systems are hidden from view when desired.
- p. Utility workers who need to ensure that systems are tied into the grid properly. Just the number of workers at utility companies that are now involved with solar projects is astounding. This includes administrative work, engineers, line workers, inspectors, etc.
- q. Truck drivers and warehouse workers who store and deliver the equipment. Here's an example, CED Greentech, a national electrical wholesaler just opened a new warehouse in Dover, NH to distribute the wiring, solar panels, inverters, racking distribution panels, all the electrical related items needed to build solar projects. They are hiring people right now to fill positions in that warehouse.

This is an industry that reaches far and wide. The solar industry has continued to grow for the 17 years that I've been in the business and has matured to a point where there are projects



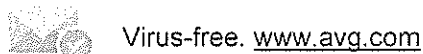
constantly being built. This means that there is consistent economic benefit to our state and to all of those industry categories and jobs that I listed.

So, the current Class II solar requirement of only 0.3% of retail sales is holding us back. It's putting a governor on job growth. Increasing this requirement to 1% is a step in the right direction toward allowing us to see the technical and economic potential of solar in NH.

I encourage you to support this bill.

Best regards,

Ted Vasant  
New England Commercial Solar Services  
Office 603-968-7359  
Mobile 603-387-9577  
[ted@necsolarservices.com](mailto:ted@necsolarservices.com)



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

	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	Cost to a typical residential customer per month (if they use 625 kWh per month)
2018	0.30%	33,000	(2,096)	0.50%	55,000	(13,096)	\$30	\$ -	\$ -
2019	0.30%	33,000	(2,096)	0.60%	66,000	(2,096)	\$30	\$ (62,880)	\$ (0.00)
2020	0.30%	33,000	(2,096)	0.70%	77,000	8,904	\$30	\$ 267,120	\$ 0.02
2021	0.30%	33,000	(2,096)	0.70%	77,000	8,904	\$30	\$ 267,120	\$ 0.02
2022	0.30%	33,000	(2,096)	0.70%	77,000	8,904	\$30	\$ 267,120	\$ 0.02
2023	0.30%	33,000	(2,096)	0.70%	77,000	8,904	\$30	\$ 267,120	\$ 0.02
2024	0.30%	33,000	(2,096)	0.70%	77,000	8,904	\$30	\$ 267,120	\$ 0.02
2025	0.30%	33,000	(2,096)	0.70%	77,000	8,904	\$30	\$ 267,120	\$ 0.02
<b>Total cumulative cost of new Class II requirement 2018-2025</b>								<b>\$ 1,539,840</b>	

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](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 1,184 people, and is one of the fastest growing sectors. There are 70 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

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

	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	Cost to a typical residential customer per month (if they use 600 kWh per month)
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	\$ 0.03
2020	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120	\$ 0.07
2021	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120	\$ 0.07
2022	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120	\$ 0.07
2023	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120	\$ 0.07
2024	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120	\$ 0.07
2025	0.30%	33,000	(2,096)	1%	110,000	41,904	\$30	\$ 1,257,120	\$ 0.07
<b>Total cumulative cost of new Class II requirement 2018-2025</b>								<b>\$ 8,139,840</b>	

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](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

SB 129 Amendment Bill Impact Estimates

**Increase Class III ACP to \$55 in 2017, 2018, 2019**

	Estimated Retail Sales *	Current ACP	Amended ACP	ACP Increment	Incremental ACP Cost**	Incremental Cost/kWh	Average Residential Monthly Bill Impact
2017	11,000,000,000	\$ 45	\$ 55	\$ 10	\$ 8,800,000	0.0008	\$ 0.50
2018	11,000,000,000	\$ 35	\$ 55	\$ 20	\$ 17,600,000	0.0016	\$ 1.00
2019	11,000,000,000	\$ 35	\$ 55	\$ 20	\$ 17,600,000	0.0016	\$ 1.00
<b>3-Yr Total &amp;Average</b>	<b>33,000,000,000</b>				<b>\$ 44,000,000</b>	<b>0.0013</b>	<b>\$ 0.83</b>

**Increase in Class II Obligation**

	Estimated Retail Sales *	Current Obligation	Amended Obligation	ACP Increment	Incremental ACP Cost***	Incremental Cost/kWh	Average Residential Monthly Bill Impact****
2018	11,000,000,000	0.3%	0.6%	33,000	\$ 1,881,000	\$ 0.00017	\$ 0.11
2019	11,000,000,000	0.3%	0.8%	55,000	\$ 3,135,000	\$ 0.00029	\$ 0.18
2020	11,000,000,000	0.3%	1.0%	77,000	\$ 4,389,000	\$ 0.00040	\$ 0.25
2021	11,000,000,000	0.3%	1.0%	77,000	\$ 4,389,000	\$ 0.00040	\$ 0.25
2022	11,000,000,000	0.3%	1.0%	77,000	\$ 4,389,000	\$ 0.00040	\$ 0.25
2023	11,000,000,000	0.3%	1.0%	77,000	\$ 4,389,000	\$ 0.00040	\$ 0.25
2024	11,000,000,000	0.3%	1.0%	77,000	\$ 4,389,000	\$ 0.00040	\$ 0.25
2025	11,000,000,000	0.3%	1.0%	77,000	\$ 4,389,000	\$ 0.00040	\$ 0.25
<b>8-Yr Total &amp;Average</b>	<b>88,000,000,000</b>			<b>550,000</b>	<b>\$ 31,350,000</b>	<b>\$ 0.00036</b>	<b>\$ 0.22</b>

**Notes:**

\*Total Estimated 2016 Electricity Sales = 10,715,674,015 kWh (Assumes small increase in electricity sales)

\*\*Incremental ACP Cost = \$increase\*8%\*11,000,000

\*\*\*Assume ACP = \$57 (2016 ACP = \$56.02)

\*\*\*\*Assume Average Residential Monthly Usage = 625 kWh

Estimates assume 100% of RPS obligation is met with ACPs

ACP sets market ceiling price

**Summary:**

Total average bill impact of 1 to 1.5 mills for both amendments

## Brenda Grant

---

**From:** Brenda Grant  
**Sent:** Friday, May 12, 2017 12:46 PM  
**To:** 'HouseScienceTechnologyandEnergy@leg.state.nh.us'  
**Subject:** SB 129  
**Attachments:** 2017.05.12.Comments on Behalf of NH Legal Assistance to Amendment 1664h.pdf

From: Alan Linder

To: Honorable Richard Barry, Chair, and to the Members of the House Science, Technology and Energy Committee:

Ladies and Gentlemen:

A Work Session on SB 129 is scheduled for May 16, 2017.

Please find attached the Comments on Behalf of New Hampshire Legal Assistance to Amendment 1664h.

Thank you for your attention to this matter.

Alan Linder on behalf of New Hampshire Legal Assistance

Prepared by:  
Brenda L. Grant  
Administrative Manager  
New Hampshire Legal Assistance  
117 North State Street  
Concord, NH 03301  
Tel. 603-223-9750, extension 2801  
Fax 603-223-9794  
[www.nhla.org](http://www.nhla.org)

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## **Comments on Behalf of New Hampshire Legal Assistance**

May 12, 2017

Before the House Committee on  
Science, Technology and Energy  
Regarding

**Senate Bill 129 (2017 Session)**

An Act requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund

### **Introduction**

New Hampshire Legal Assistance (NHLA) provides free legal services to low income households, seniors, and non-profit organizations. NHLA's services include representation before the NH Public Utilities Commission (PUC) and the legislature regarding electric, gas and telecommunications. NHLA's representation before the PUC includes issues relating to energy efficiency, renewable energy, and programs and rates that benefit low and moderate income gas and electric customers.

### **Position of New Hampshire Legal Assistance**

NHLA testified in support of SB 129 at the public hearing held on April 11, 2017 and also submitted written testimony at the public hearing.

A full Committee Work Session took place on May 9, 2017. Representative Voss presented Amendment 1664h at the May 9 Work Session. The Work Session was recessed and continued to May 16, 2017, to be followed by an Executive Session on May 16, 2017.

NHLA offers the following comments, concerns and recommendations regarding Amendment 1664h.

## Comments

### 1. Section 1, Purpose.

The following language was deleted from Section 1, Purpose:  
“[promote] customer choice and energy independence  
by eliminating market barriers to solar energy that low  
to moderate income residential customers face, by  
sustaining and promoting . . .”

### Recommendation.

NHLA recommends restoring the above deleted language to the Purpose section. However, consideration could be given to substituting the words “renewable energy” for “solar energy.”

### Discussion.

The reason for this recommendation is that the deleted language provides a foundation for the 15 percent set aside of renewable energy funds for low and moderate income residential customers provided for in Section 3 of SB 129.

The Public Utilities Commission has recognized that significant market barriers exist that effectively prevent low income customers from investing in energy efficiency measures and services. Restoring the deleted language to the Purpose section serves as recognition that there are market barriers that need to be removed so that low and moderate income residential customers can access renewable energy projects and programs. This will promote the Electric Restructuring policy principle that restructuring should be designed to reduce market barriers to investments in energy efficiency. RSA 374-F:3, X, Energy Efficiency.

Removing market barriers will not only benefit low and moderate income customers, but in the long run will also benefit all customers and the environment by reducing reliance on fossil fuels and promote the expansion of clean and renewable forms of energy.

### 2. Section 7(c), Net Energy Metering.

Section 7(c), Net Energy Metering, was deleted in its entirety. The deleted language includes language which allows low and moderate income residential customers who are members of a low-moderate income community solar project to receive credits on their electric bill as a result of net metering. Credits are limited to one new project a year for 3 years in each utility’s service territory through 2020. Also deleted is the requirement that the utility provide a report to the Commission by December 31, 2020 of the costs and benefits of such projects.

## Recommendation.

NHLA recommends restoring all of deleted Section 7(c) to the bill.

## Discussion.

There are a number of reasons for restoring Section 7(c) to the bill.

- 1) Deleting section 7(c) undermines to some extent Section 3 which provides that no less than 15 percent of the renewable energy funds shall annually benefit low-moderate income residential customers. Section 7(c) offers a potentially effective means of implementing the funding provision of Section 3.
- 2) Deleting all of Section 7(c) could negatively impact the ability of the PUC to implement the net metering bill credits called for in Section 7(c). Restoring the deleted language will clarify the authority of the PUC to order net metering bill credits.
- 3) Deleting all of Section 7(c) eliminates the tracking and reporting system set up by Section 7(c). Monitoring, tracking and reporting are essential components of a successful delivery system.

Tracking is essential for determining whether projects are successful, whether the intended benefits reached the target population, as well as determining the costs of the delivery system, the amount of benefits derived, whether the system was cost-effective, and whether the benefits outweighed the costs of service.

As part of its on-going administration of energy efficiency programs the Commission requires utilities to conduct extensive tracking, monitoring and reporting of all energy efficiency programs and projects, and for all sectors, i.e., residential, commercial and industrial, and low income. The utilities must also retain independent third parties to conduct monitoring and verification, and to prepare reports which are provided to the Commission, the Consumer Advocate, and all parties to the energy efficiency dockets. Indeed, up to 5 percent of the annual energy efficiency budgets are devoted to monitoring, reporting and evaluation.

There is no reason to believe that the renewable energy programs authorized by SB 129 would be treated any differently by the Commission than all the other energy efficiency programs with respect to monitoring and evaluation requirements. Indeed, beginning January 1, 2018 all energy efficiency programs will be subject to "rigorous and transparent" Evaluation, Measurement and Verification requirements under the new Energy Efficiency Resource Standard approved by the Commission in Order No. 25,932 dated August 2, 2016 in docket DE 15-137. Order, p. 61,



Section 7, Evaluation, Measurement and Verification. This “rigorous and transparent” monitoring, reporting and evaluation process will allow the legislature and the public to review the results of all of the energy efficiency programs, including renewable programs and projects made possible by enactment of SB 129.

- 4) The number of low and moderate income projects authorized by Section 7(c) of SB 129 is limited to only one project per utility per year for a period of 3 years. A final report is due December 31, 2020. This provides a good opportunity to test out this market on a “pilot” basis and to evaluate the results prior to deciding whether any program changes need to be made.
- 5) In its Order of Notice dated May 19, 2016 in DE 16-576, Development of New Alternative Net Metering Tariffs, the Commission noted that the legislative purpose of HB 1116 (2016), which amended several provisions of RSA 362-A, the Limited Electric Energy Producers Act, includes the promotion of a balanced energy policy and a modern and flexible electric grid that provides benefits for all ratepayers. Order of Notice, pages 1 and 2. Similarly, one of the important Electric Restructuring Policy Principles is that all customers be treated “equitably.” RSA 374-F:3, VI, Benefits For All Consumers. Restoring the deleted language of Section 7(c) would promote the legislative goal of treating all customers fairly.

### 3. Section 6, Minimum Electric Renewable Portfolio Standard.

Amendment 1664h deletes the proposed increase in Class II renewables (solar) to 1% (up from the current .3%.

#### Recommendation.

NHLA recommends that the increase to 1% for the solar component of the Renewable Portfolio Standard be restored to the bill.

#### Discussion.

- 1) The proposed increase from .3% to 1% is a modest one.
- 2) An increase in the growth of solar will benefit all customers in the long run and will also benefit the environment. See RSA 374-F:3, VIII, Environmental Improvement. See also RSA 374-F:3, IX, Renewable Energy Resources.
- 3) It is inconsistent and somewhat inequitable to provide support to one segment of the economy through SB 129, but not to another important segment (i.e., solar).
- 4) The Commission stated in its Order of Notice in DE 16-576, Development of New Alternative Net Metering Tariffs, that the legislative purposes of HB 1116 include the promotion of a balanced energy policy that supports economic growth and energy diversity, environmental benefits, and a modern and flexible electric grid

that provides benefits for all ratepayers. These legislative purposes would be promoted by providing the modest amount of additional support for solar in Section 6 of SB 129.

### **Conclusion**

NHLA recommends that the above deletions from Section 1, 6, and 7(c) of Amendment 1664h be restored to SB 129, and that consideration be given to strengthening the tracking and reporting requirements of Section 7(c).

Thank you.

Alan Linder and Mary Krueger  
On Behalf of N.H. Legal Assistance

May 12, 2017

May 11, 2017

Representative Richard Barry, Chairman  
NH House of Representatives Science Technology and Energy  
Committee  
New Hampshire Legislative Office Building, Room 304  
Concord NH 03301

I am writing to you concerning the Senate Bill 129. Please support this bill as it is imperative to keep the biomass facilities located throughout New Hampshire operating. I am currently and have always been employed in the forestry industry of NH. My job and my family's livelihood depend upon this industry continuing and thriving in NH. Over the past several years our industry has taken some very hard hits due to the market and or weather. We need this industry to stay in NH as it contributes greatly to the economy not only in Northern NH where I am from but the entire state.

Thank you for your service to New Hampshire and please support Senate Bill 129.

Sincerely,



Michael J Foster

68 Joe Lahout Lane Apt 73  
Littleton NH 03561

# **PLEASE VOTE SB 129**

## **Ought to Pass**

The N.H. House of Representative Science, Technology, and Energy is preparing to vote on Senate Bill 129. This is the bill that addresses the New Hampshire Renewable Portfolio Standard law (RPS) and its biomass renewable energy certificate (REC) pricing for the 6 independent biomass plants. It is vital to continued operations.

Please send emails to the House Science, Technology, and Energy Committee in support of Senate Bill 129 this weekend.

### **Message**

The message is simple -- **Senate Bill 129 will help keep the state's biomass power plants operating. These plants provide jobs and economic activity to the forest products industry and the state of New Hampshire. They are also an important part of the state's forest products industry and important to sustainable forestry.**

In your email:

1. Clearly state you support Senate Bill 129 and the importance of the continued biomass power operations to your business and jobs.
2. Introduce yourself and/or company.
  - Identify the town you live in or where your business is located. If you work in multiple towns please identify those towns (we need to show that biomass harvesting occurs across the state),
  - # employees (gross pay roll figure would be good),
  - # of subcontractors your business supports (e.g. how much you spend for repairs, fuel, how many logging crews you keep busy, etc.),
  - Volume of wood you move or mill annually,
  - Acres of timberland you own or manage.
3. The success of your timberland ownership/management and your client's business depends on them,
  - Execute forestry prescriptions,
  - Cash-flow timber sales,
  - Conduct wildlife habitat work,
  - Manage forest pest outbreaks,
  - More aesthetically pleasing timber sales,
  - Create recreational trails,
  - Manage your mill waste.
4. Conclude the email thanking the committee for their service to the state and asking them to support Senate Bill 129.

## **Contact information**

### **Address your email to:**

Representative Richard Barry, Chairman  
N.H. House of Representatives Science, Technology, and Energy Committee  
New Hampshire Legislative Office Building, Room 304  
Concord, NH 03301

### **Send your email to:**

HouseScienceTechnologyandEnergy@leg.state.nh.us

Also, please copy the House Leadership Office and Governor Sununu on your email, here are their addresses;

Governor Sununu; Use the Governor's website,  
<https://business.nh.gov/nhgovernor/comments.asp>

House Leadership  
Speaker of the House Shawn Jasper,  
[shawn.jasper@leg.state.nh.us](mailto:shawn.jasper@leg.state.nh.us)

## **Other forestry facts and figures you may want to incorporate into your email/call:**

New Hampshire is a timber state – N.H. is the second-most forested state in nation (84 percent forest cover). Most of this land (76 percent) is privately owned.

Forest-manufacturing (timber harvesting, lumber production, and biomass power generations) contributes \$1.4 billion to New Hampshire's economy and employs 7,700 individuals. Loss of the state's biomass power plants will negatively impact this entire manufacturing sector.

Biomass power plants, and the low-grade timber markets they support, provide landowners, foresters, loggers, and mills are an important part of the state's timber economy annually contributing \$254 million to the state's economy and supporting 931 jobs.

May 11, 2017

Representative Richard Barry, Chairman  
NH House of Representatives Science Technology and Energy  
Committee  
New Hampshire Legislative Office Building, Room 304  
Concord NH 03301

I am writing to you concerning the Senate Bill 129. Please support this bill as it is imperative to keep the biomass facilities located throughout New Hampshire operating. I am currently and have always been employed in the forestry industry of NH. My job and my family's livelihood depend upon this industry continuing and thriving in NH. Over the past several years our industry has taken some very hard hits due to the market and or weather. We need this industry to stay in NH as it contributes greatly to the economy not only in Northern NH where I am from but the entire state.

Thank you for your service to New Hampshire and please support Senate Bill 129.

Sincerely, 

Kenneth Corliss  
1 Ridgeview Terrace  
Whitefield NH 03598



**Business and Industry Association**  
New Hampshire's Statewide Chamber of Commerce

*Original*

122 North Main Street, Concord, NH 03301  
Tel: 603.224.5388 • Fax: 603.224.2872 • Web: www.BIAofNH.com

April 11, 2017

The Honorable Richard Barry  
Chairman, House Science, Technology, and Energy Committee  
New Hampshire House of Representatives  
Legislative Office Building – Room 304  
Concord, New Hampshire 03301

Mr. Chairman, members of the committee:

I'm here today to express the Business and Industry Association's opposition to certain elements of SB 129, specifically relative to electric renewable energy classes and relative to the class rate for biomass which will result in adverse rate impacts to all customers, with the large energy users being hit the hardest. If left unaddressed, the Business and Industry Association cannot support SB 129. We urge you to find the bill inexpedient to legislate.

SB 129 proposes making significant and costly changes to electric renewable energy classes and the class rate for biomass. A recent rate impact analysis of the changes to Class II (solar) and Class III (biomass) completed by electric utilities estimates that increases in Renewable Portfolio Standard (RPS) compliance costs for all customers would be \$75 million statewide by the year 2025.

The high cost of electricity is a top concern for New Hampshire businesses, particularly manufacturers who drive New Hampshire's economy. Manufacturers account for 11 percent of the state's total output, employs over 10 percent of our workforce, and contribute nearly \$8 billion to the state's economy. (Please see accompanying "New Hampshire Manufacturing Facts" from the National Association of Manufacturers.) New Hampshire electricity prices are consistently 50-60% higher than the national average, year-round, not just in winter months. The high cost of electricity adversely affects job growth and economic activity in our state.

At a time when policy makers should be seeking to lower electric energy prices, SB 129 does the opposite. This will hurt job creation. Just last week, another BIA manufacturing member voiced its concern about growth prospects in the state's high cost environment:

*"... higher paying manufacturing growth is only possible with the concurrent addressing of the energy situation. My company is considering adding a third production line – an \$8.5 mil. investment that will require an additional approx. 20 employees. Our entry level pay rate is \$12 with rates for the higher level positions, up into the mid \$20's. How can I*

*ask my partners and lenders to consider this investment without detailing the increasingly concerning energy supply/cost risk?"*

Unless the onerous provisions of SB 129 noted above are removed from the bill, we urge you to find the bill inexpedient to legislate. I'm happy to address any questions you may have.

Respectfully,



Stefanie Lamb

Vice President of Public Policy

Business & Industry Association of New Hampshire



# New Hampshire Manufacturing Facts

Manufacturers in New Hampshire account for 11 percent of the total output in the state, employing 10.3 percent of the workforce. Total output from manufacturing was \$7.99 billion in 2015. In addition, there were 67,500 manufacturing employees in New Hampshire in 2015, with an average annual compensation of \$77,492 in 2015.

Manufacturing Output and Firms		Employment and Compensation	
Total Manufacturing Output ( <i>\$billions, 2015</i> ) ( <i>Percent share of total gross state product</i> )	\$7.99 11%	Manufacturing Employment ( <i>2015</i> ) ( <i>Percent share of nonfarm employment</i> )	67,500 10.3%
Manufacturing Firms in New Hampshire ( <i>2014</i> )	1,722	Average Annual Compensation ( <i>Manufacturing, 2015</i> ) ( <i>Nonfarm Businesses, 2015</i> )	\$77,492 \$49,780

Sources: U.S. Bureau of Economic Analysis and the U.S. Census Bureau

Figure 1: New Hampshire Manufacturing Output, in Billions of Dollars, 2005–2015

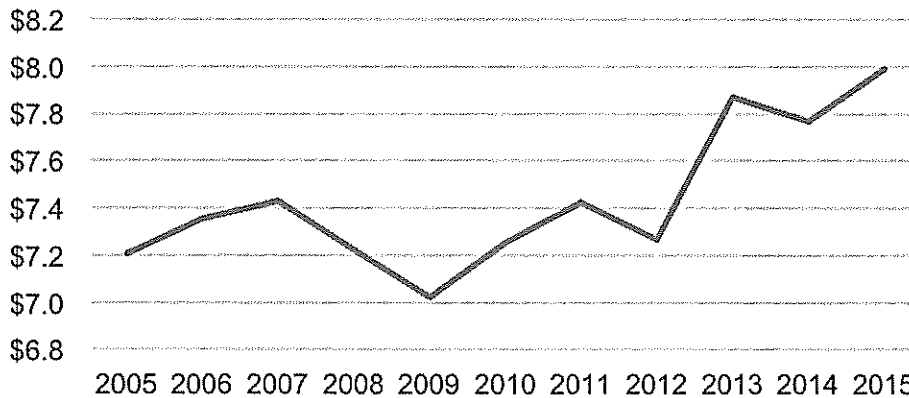
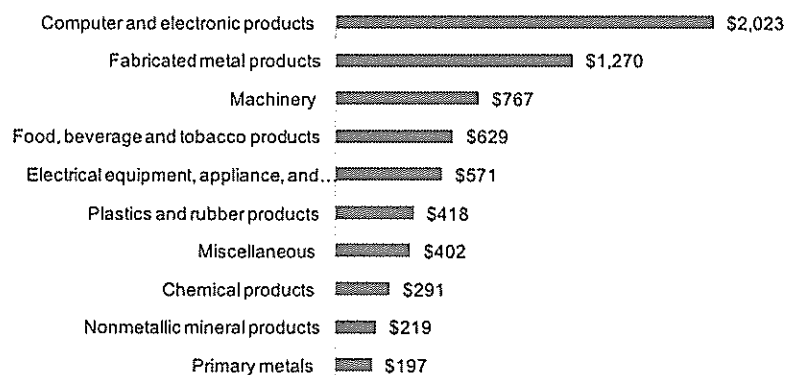


Figure 2: Top 10 New Hampshire Manufacturing Sectors, in Millions of Dollars, 2014



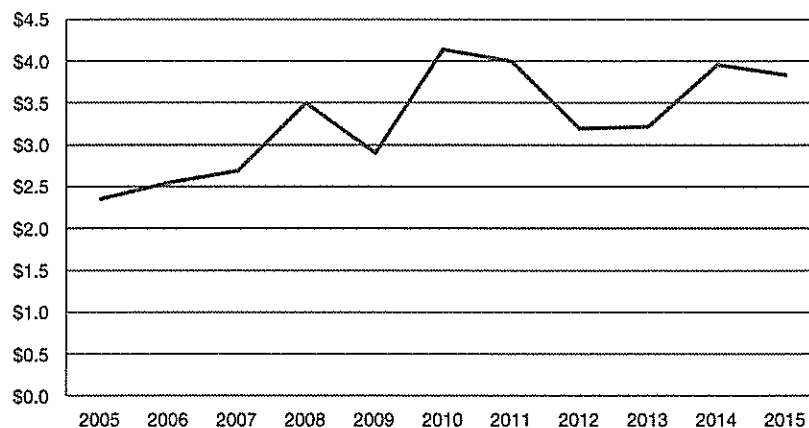
# New Hampshire Export Facts

Manufacturers help to drive New Hampshire's economy, with \$3.83 billion in manufactured goods exports in 2015. That same year, \$1.33 billion in exports was with our free trade agreement (FTA) partners. This helps create jobs in the state, and 25.70% percent of its employment stemmed from exports in 2011. Small businesses comprised 86.9 percent of all exporters in New Hampshire.

Manufactured Goods Exports ( <i>\$billions, 2015</i> )	\$3.83	Manufactured Goods to Free Trade Agreement Partners ( <i>\$billions, 2015</i> )	\$1.33
( <i>Percent share of total goods exports</i> )	95.60%	( <i>Percent of total exports, 2015</i> )	34.70%
Growth in Manufactured Goods Exports (2010–2015)	-7.50%	Total Manufactured Goods Exports to TPP (2015)	\$1.29
U.S. Jobs Supported by Goods Exports (2014)	20,048	Top Five Export Markets ( <i>Percent of total manufactured goods exports, 2015</i> )	46.60%
Employment from Manufacturing Exports ( <i>Export share of manufacturing jobs, 2011</i> )	25.70%	<ul style="list-style-type: none"> <li>• Mexico (13.10%)</li> <li>• Canada (12.50%)</li> <li>• United Arab Emirates (7.30%)</li> <li>• China (6.90%)</li> <li>• United Kingdom (6.80%)</li> </ul>	
Small Business Share of Total Exporters (2013)	86.9%		

Sources: International Trade Administration, U.S. Census Bureau

Figure 3: New Hampshire's Manufactured Goods Exports, in Billions of Dollars, 2000-2015



## Additional Trade Facts

- In 2015, manufacturers in the United States sold \$12.7 billion more in manufactured goods to our FTA partners than we bought from them. The United States has a manufactured trade deficit of \$639.6 billion from countries where no FTAs existed.
- FTA countries: Australia, Bahrain, Canada, Chile, Columbia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Singapore and South Korea.
- Visit [www.nam.org/statedata](http://www.nam.org/statedata) or [www.nam.org/trade](http://www.nam.org/trade) for more information.

# High-priced power for NH industry

## NH industrial leaders sound a warning on high energy costs

By **MICHAEL COUSINEAU**  
New Hampshire Union Leader

Chocolate maker Lindt & Sprungli says high energy costs are preventing it from expanding its Stratham operation, which produces around 250 tons of chocolate a day.

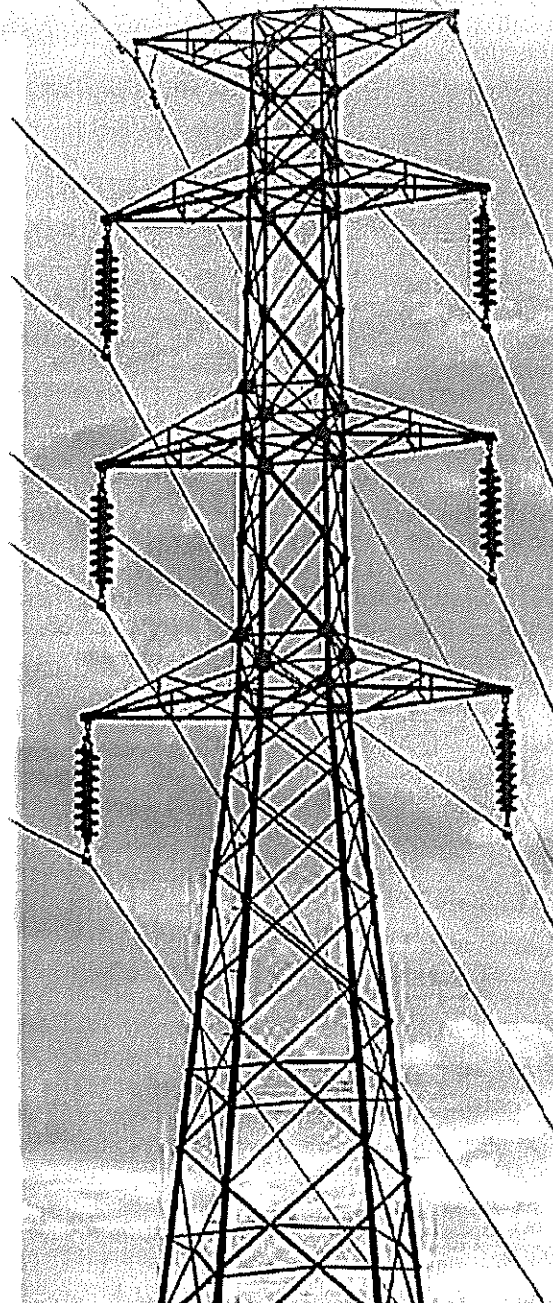
Whelen Engineering, which makes emergency lights for police cars, is considering whether to add a new building in the Charlestown area with 100 new jobs or put it in a cheaper-energy state, such as Georgia.

And gun-maker Sig Sauer said it would save \$1 million to \$1.5 million a year if its New Hampshire facilities operated in a state with lower energy costs.

"If we don't have an assurance of reliability and a drastic reduction in our energy costs, a lot of us will be packing our bags and going," John Olson, Whelen's executive vice president, said at a New Hampshire energy symposium at the Radisson Hotel.

Statistics from the federal government show New Hampshire has the seventh-highest commercial electric rates in the

► See **Energy**, Page A3



New Hampshire: 12.33¢

**New England** 12.19¢  
ME, NH, MA, VT, CT, RI

**Pacific Coast** 10.55¢  
CA, OR, WA

**W. North Central** 7.47¢  
IA, KS, MN, MO, NE, ND, SD

**Mid-Atlantic** 7.13¢  
NJ, NY, PA

**E. North Central** 6.99¢  
IL, IN, MI, OH, WI

**Mountain** 6.86¢  
AZ, CO, ID, MT, NV, NM, UT, WY

**S. Atlantic** 6.72¢  
DE, DC, FL, GA, MD, NC, SC, VA, WV

**E. So. Central** 6.11¢  
AL, KY, MS, TN

**W. So. Central** 5.52¢

This chart shows the average price (cents per kilowatt hour) of electricity for industrial customers in regio across the country

New Hampshire's 12.33 cents is high than the New England average, but it's only the fourth highest in the region:

- R.I. .... 13.41
- Mass. .... 13.26
- Conn. .... 12.99
- N.H. .... 12.33
- Vermont.....10.37
- Maine.....9.13

SOURCE: SEPTEMBER 2016 DATA FROM THE U.S. ENERGY INFORMATION ADMINISTRATION

PHOTO: ISTOCK

## Energy

Continued from Page A1

continental United States and the fifth-highest industrial rates. The Granite State ranked fifth for residential rates in the lower 48 states.

Average energy prices for commercial users in New Hampshire stood at 14.41 cents per kilowatt hour compared to 9.67 cents in Georgia and 8.33 cents in Arkansas in September. Industrial users pay 12.33 cents in New Hampshire, 6.18 cents in Georgia and 6.42 cents in Arkansas, according to the U.S. Energy Information Administration.

More electric-generating facilities are needed for New England, according to Carl Gustin, advisor to the New England Coalition for Affordable Energy.

"An all-resource strategy, we believe, is critical," Gustin said.

Higher energy costs could cost the region 23,000 new jobs in 2020 alone.

"Manufacturing," Olson said at Thursday's symposium, "will go away from New Hampshire if we do not as a state, and especially our Legislature behind it, do something which should have been done 10 years ago to reduce the cost and control the cost of energy to the manufacturers."

But Sen. John Reagan, R-Deerfield, said he doesn't think the Legislature should get involved.

Businesses looking to locate in New Hampshire factor in things like availability of workers and cost of doing business. High electric rates are "a cost of production," Reagan said in an interview.

Robert Michalski, vice president of operations at Lindt & Sprungli, said the



*"The concerning part for us is that we are at this point, the company is not willing to grow anymore in New Hampshire. The only way that we're going to be able to grow in New Hampshire further is by finding ways to reduce our energy, our energy costs in this state."*

ROBERT MICHALSKI  
vice president of operations  
at Lindt & Sprungli

company's Stratham plant, which employs around 1,500 and occupies about 1 million square feet, pays more than \$5 million a year for electricity and expects that to rise another half-million dollars in 2017.

"The concerning part for us is that we are at this point, the company is not willing to grow anymore in New Hampshire," he said. "The only way that we're going to be able to grow in New Hampshire further is by finding ways to reduce our energy, our energy costs in this state."

Sig Sauer, which employs 1,400 in New Hampshire and has another 200 job openings in the state, is building an ammunition plant in Kentucky.

"Our first option was in New Hampshire, but if you look at energy costs and all the other things I mentioned, there's not even a starting point there," said Jeff Chierepko, Sig Sauer's director of facilities. "We were pursued by a lot of different states and a lot of

them happen to be where energy costs are half."

Olson said Whelen, which employs about 1,000 people in a five-building campus in Charlestown, plans to decide in the next month where to build a new manufacturing plant that would employ 100.

"I'm considering a huge building in Charlestown or that area this year, (but) whether it's built there or whether it's built in Georgia is up for consideration," Olson said. "I want to keep New Hampshire growing."

Sig Sauer operates five of its eight facilities in New Hampshire.

"We'd like them all to be in New Hampshire," Chierepko said. "Our energy costs are through the roof."

Sig Sauer is working on a new 70,000-square-foot plant in Arkansas, Chierepko said.

With energy costs in Arkansas around half as much as in New Hampshire, he said, "it's really a no-brainer."

[mcousineau@unionleader.com](mailto:mcousineau@unionleader.com)

# Energy cost and reliability are hitting NH employers

ELECTRICITY PRICES AND UNCERTAINTIES about future power supply reliability are a drag on New Hampshire's business competitiveness.

Just ask Jeff Chierepko, director of facilities at Sig Sauer, a major defense and law enforcement contractor, in Newington. Sig Sauer has been a job creator for New Hampshire, but that could change. In just a decade its workforce grew from about 120 employees to more than 1,600 in five facilities, four of them in manufacturing. It also operates plants in Arkansas and Oregon and is looking at Florida.

Electricity costs are an important factor. "New Hampshire's rates are about twice those of the other states," according to Chierepko. "Today, any expansion plans have to take into account electricity costs, employee skill levels and the political climate. Electricity costs today, and

concerns about future price volatility, along with the inability in this region to build new energy infrastructure of almost any type put New Hampshire at a distinct disadvantage as we look to expand."

Chierepko adds that the reliability of electricity is also a concern. "We need highly reliable service at precise levels to avoid costly shutdowns, the loss of expensive materials and possible damage to machines, which can cost a half a million dollars or more."

Gordon van Welie, who heads ISO New England, the nonprofit responsible for ensuring the region has a reliable supply of electricity, shares Chierepko's concern about reliability. Van Welie has described a "precarious" and "unsustainable" electric grid operating system over the next few years during periods of extreme cold. That's

## Jim Roche and Carl Gustin

a concern for any business operating 24/7 year-round. It is a huge concern to individual consumers who depend on electricity to keep their homes warm and families fed.

The warnings are not new. The New England governors in December 2013 declared a reliable and affordable energy system requires "investments in additional energy efficiency, renewable generation, natural gas pipelines, and electric transmission."

Recent legislation has focused on renewable generation from wind and solar to address climate concerns. But the region is falling behind on energy infrastructure needed to make electricity more affordable and reliable for Sig Sauer and other employers throughout the region. This includes delays in permit-

ting electric transmission projects and roadblocks to gas pipeline projects.

In 2014, the New England States Committee on Electricity (NESCOE), which reports to the governors, found "all studies [reviewed] concluded that New England needs additional natural gas supply infrastructure to satisfy New England's power system demand."

In 2015, the New England governors agreed that the region "continues to face significant energy system challenges with serious economic consequences for the region's consumers. The problem is greater than any one state can solve alone."

Unfortunately, no organization today looks at the regional impacts of state-by-state policies with a comprehensive approach that considers electric reli-

ability and the environment — or regional economic competitiveness. This approach was recommended by Daymark Energy Advisors in an update of an August 2015 study for the New England Coalition for Affordable Energy, whose members include the region's largest business organizations.

The earlier study concluded the region's energy costs could be \$5.4 billion higher by 2020 unless actions are taken to add energy infrastructure of all types. The update found inaction on infrastructure development has increased the risk of even higher energy costs.

Major natural gas pipeline projects that would relieve constraints have been cancelled or blocked. Transmission lines that would bring large amounts of wind energy from northern New England and hydropower from Canada to load centers

have been delayed (as in the case of Northern Pass) or stopped. And up to one-third of the region's electric power generation has either been retired or is likely to do so in the coming years.

This is a serious near-term challenge for employers. Action is needed now to approve infrastructure projects — pipelines, transmission lines, power generation of all types — based on the concerns the governors expressed in 2013 and have reiterated since.

Just ask Sig Sauer's Chierepko, and other executives throughout New Hampshire, who battle every day to keep their companies competitive with domestic and foreign manufacturers whose energy costs are a fraction of those in New England.

♦  
Jim Roche is president of the Business and Industry Association, New Hampshire's statewide chamber of commerce. Carl Gustin is a consultant to the New England Coalition for Affordable Energy.



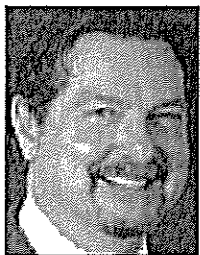
## **Business Perspective**

Business & Industry Association  
of New Hampshire

# How local assessments raise your electric bill

By **JIM ROCHE**  
BIA President

CITIES AND TOWNS throughout the state are inappropriately taking advantage of their ability to independently assess electric, gas and water infrastructure (buildings, pipes, transformers, poles and wires). Many are using unjust assessments and collecting excessive property taxes from utilities.



**JIM ROCHE**

As a consequence, we're all paying for it through higher electricity and other utility costs. As with any other

cost of doing business, electric, gas and water providers pass these local property tax costs on to customers.

Higher electricity costs are bad enough for residential customers. They are serious burdens for manufacturers and other large energy users like ski resorts, health-care providers, colleges, hotels and even employers in financial services with large campuses. If we don't change this and do something soon to lower electricity costs in New Hampshire, we'll see a steady decline in manufacturing, the most important sector of our state by nearly every economic measure.

New Hampshire Electric Co-op, an 84,000-member-owned utility, recently reported a 70 percent increase in municipal property taxes paid over five years, directly attributable to enormous and unjustified increases in the assessed value of their property by many of the towns they serve.

In its March 2017 newsletter to members, the co-op writes, "one town tripled the assessed value of the Co-op's property in a single year. In another town, we added \$2 million of property

in 2015, yet our assessment went up \$8 million. In yet another town, our property valuation was doubled in 2014 and increased by another 25 percent in 2015."

That's why BIA is supporting HB 324, a bill designed to implement a fair and consistent method for assessing property owned by utility companies. HB 324 requires municipalities to accept the assessment conducted by the New Hampshire Department of Revenue Administration (DRA) for valuing and taxing utility property.

This assessment by the DRA already takes place for the purposes of collecting the statewide utility property tax, and municipalities are given this assessment. But many choose to do their own assessments that are double, sometimes triple that provided by the DRA. If the DRA assesses a utility pole at \$100, municipalities should not be allowed to assess the same pole at \$300. That's a money grab that ultimately ends up on utility bills.

This lack of an established standard of assessment is obviously a problem for consumers — residential and businesses alike — yet many cities and towns are actively fighting HB 324. Ap-

► See BIA, Page B2

parently, they believe that when these costs are passed on to customers by utilities, customers will blame the utilities for increasing their rates, not the cities and towns for artificially increasing the tax imposed on utilities.

Utilities are fighting back in the courts. Yet ironically, taxpayers bear the costs on both sides of the legal battle, no matter which party wins. The municipalities' legal costs are passed

on directly through property taxes. The utilities' legal costs are passed on through increased utility rates.

In Bow earlier this year, Eversource won a major victory against this kind of unfair municipal taxation. In 2012, Bow assessed the value of Eversource-owned Merrimack Station coal-fired plant at \$159 million. The utility sued and won a court judgment setting the assessed value at \$18.9 million. The result? Taxpay-

ers in Bow are now on the hook for repaying over \$14 million to the utility, which was unjustly taxed by their town. This could have been easily avoided had HB 324 been in place.

Which is why it was very discouraging for BIA to learn that the New Hampshire House Science, Technology and Energy committee decided to "retain" HB 324 for further study. Sometimes this happens because a bill legitimately needs more work. In this case, however, the bill was retained as a clever parliamentary maneuver to make the legislation "go away," sort of death-by-neglect. HB 324 is not a complex issue requiring months and months of study. It's a one page bill that should be passed by the Legislature.

This is not the first time the Legislature has dealt with utility property tax assessment issues. Just last year the Legislature passed, and the governor signed into law, legislation establishing a formula for valuing poles and conduit associated with telecommunications providers.

Although the solution was different from that proposed in HB 324, the underlying objective was the same — to end widely varying and often inflated property tax assessments by municipalities. Electricity, gas and water users deserve fair and transparent assessments, something they would finally get with the passage of HB 324.

♦  
Jim Roche is the president of the Business & Industry Association, New Hampshire's statewide chamber of commerce. The BIA produces this column monthly exclusively for the New Hampshire Sunday News.

MY TURN

## Tilting at windmills on energy prices

Renewables and efficiency don't add up to a solution

By **JIM ROCHE**  
For the Monitor

The fictional character Don Quixote maintained a staunchly hopeful attitude in his gallant adventures. His comportment reminds me of those who think New Hampshire and New England can solve our electrical energy cost crisis by simply investing more in energy efficiency and renewable energy like wind and solar.

Like Don Quixote, they are tilting at windmills.

New Hampshire's electrical energy prices are consistently 50 to 60 percent higher than the rest of the contiguous United States. Year-round, not just during the winter months. This is a fact.

On top of high costs, "existing natural gas pipelines are inadequate to serve growing peak demand for heating and power generation needs in the winter," according to the New England's Independent System Operator, a not-for-profit, independent agency charged with ensuring availability

charged with ensuring availability of competitively priced wholesale electricity by the Federal Energy Regulatory Commission.

New England is increasingly dependent upon natural gas for electric generation. In 2000, 15 percent of electricity production came from burning natural gas. Today that figure is close to 50 percent. Our situation becomes more precarious over the next few years. That's because more than 30 percent of the region's other, more traditional sources of electric power (burning coal and oil, and nuclear generation) are retiring or at risk of retiring.

The Business & Industry Association, New Hampshire's statewide chamber of commerce, supports an "all of the above" ap-

SEE ENERGY B2

## We must focus on energy infrastructure

ENERGY FROM B1

proach to meeting our energy needs. This includes energy efficiency and renewables like wind and solar.

Our manufacturing members (and businesses from all sectors of our economy) have long recognized cost savings associated with energy efficiency. They've invested millions of dollars to tighten building envelopes (windows, doors, wall and roof insulation, etc.); streamlined processes and systems for economies of scale; installed efficient HVAC and lighting systems; used efficient motors and machinery in production; and much more.

The fact is, businesses have a very strong incentive to invest in every method of efficiency to make their operations more cost-effective and competitive.

They've been doing this for years.

A growing number of BIA members are also investing in renewable

*Until cost-effective battery storage*



*technology  
advances, or the  
sun never sets and  
wind always  
blows, it will be a  
very long time  
before these kinds  
of renewables are  
able to meet our  
energy needs.*

energy. But the fact is, wind and solar account for just 3 percent of the region's generating capacity in spite of strong federal and state financial incentives.

Until cost-effective battery storage technology advances, or the sun never sets and wind always blows, it will be a very long time before these kinds of renewables are able to meet our energy needs. Energy efficiency and renewables by themselves

are woefully inadequate to meet our near-term electrical energy needs. In the meantime, businesses are making decisions affecting our economy.

With 400 leading employers in our membership, we hear from businesses all the time about plans for growth outside New Hampshire. To be sure, high electricity bills alone are not the only factor in determining where companies grow, but it is a factor, and a big one for manufacturers.

Manufacturing is our most important economic sector by nearly all economic measures – contribution to gross state product, employee compensation, exports, subcontracts, jobs and more. Manufacturers use lots of electricity to make their products. It's one of their biggest inputs. Many other states, often where New Hampshire manufacturers have sister locations, boast electrical energy prices that are half or less than those in New Hampshire.

When our manufacturers grow elsewhere – or worse, shift jobs elsewhere – New Hampshire loses.

The near-term solution to our state's and region's electrical energy cost crisis is adding new energy infrastructure. While BIA has not endorsed any specific project, there is no question we need more electricity for our regional grid in order to lower prices. There is simply no way to energy-efficiency-and-renewable-energy our way out of this crisis. At least not before thousands of jobs are lost to more competitive areas of the country.

Policymakers need to look beyond fantastical scenarios espoused by some and act to bring more energy into our region now.

*(Jim Roche is president of the Business and Industry Association.)*

**BEFORE THE NEW HAMPSHIRE GENERAL COURT  
HOUSE SCIENCE, TECHNOLOGY AND ENERGY COMMITTEE**

**TESTIMONY OF CONSTELLATION**

**ON**

**SENATE BILL 129**

**April 11, 2017**

Chairman Barry and members of the Committee, Constellation offers the following testimony with regard to Senate Bill 129. Constellation is part of Exelon Corporation, a Fortune 100 energy company, and is the leading competitive electric supplier to businesses across the State of New Hampshire. Constellation respectfully opposes SB 129 for the following reasons.

Modifications to the existing renewable portfolio standards have a significant adverse impact on existing contractual relationships between competitive electric suppliers and their customers. This is particularly so when changes increase the overall cost of meeting obligations that were entered into prior to the change in law. Senate Bill 129 increases those costs in three ways:

- It retroactively disqualifies certain methane gas facilities from meeting Class III RPS obligations;
- it retroactively increases the Class I RPS obligation and increases the Class II obligation beginning in 2018; and
- it retroactively increases the alternate compliance rate from \$45 to \$55;

Unlike regulated utility companies, who can file a change to their tariff with the Public Utilities Commission at any time, competitive suppliers enter into contracts with their customers under which the price is firm for the duration of the contract, usually several years. Suppliers are able to quote and meet a fixed price because they can price and purchase the necessary resources under forward contracts in the wholesale market. In other words, they can lock in their supply at the time they contract with their customer. Alternatively, where supply is not available at the time of contract they can still rely on the Alternate Compliance rate as a basis on which to offer a firm electricity price. Imposing higher renewable resource procurement and delivery obligations, increasing Alternate Compliance Rates and disqualifying previously eligible resources for sales under pre-existing contracts will impose new and unrecoverable costs on suppliers.

In some cases supplier contracts may contain fine print under which they reserve the right to bill customers for certain material changes in law. In our experience efforts to pass on these unanticipated costs under fixed price contracts through the fine print of the agreement tends to produce widespread customer frustration, drives complaints to the commission, engenders contract disputes and overall puts a chilling effect on the competitive retail energy market. Other states which have enacted changes to their renewable resource portfolio standards have in nearly every case "grandfathered" these pre-existing retail contracts (as well as wholesale default service supply contracts) to avoid serious market disruption and frustration of commercial expectations. Indeed as recently as 2012 New Hampshire also elected to grandfather existing retail contracts when imposing increased RPS obligations. This bill's failure to include appropriate grandfathering language is a major shortcoming.

Indeed, not only does SB 129 fail to adequately protect the fixed price contracts relied upon by New Hampshire businesses and consumers, it actually imposes new RPS obligations and costs retroactively to January 1, 2017. A better approach the

Testimony of Daniel Allegretti on behalf of Constellation  
House Science, Technology and Energy Committee  
April 11, 2017

Committee may wish to consider is an effective date beginning with the 2018 compliance year, rather than from the date of passage. Since renewable resource portfolio compliance is generally done on an annual basis, starting with the 2013 calendar year will enable both suppliers and the Commission to prepare for changes effected by the bill and will reduce the number of affected retail contracts that must be grandfathered.

In conclusion, I hope the Committee will give due consideration to Constellation's concerns as you move forward with consideration of this bill and if Constellation may be of any assistance we invite you to call on us.

**Testimony of Lisa Linowes Regarding SB 129**  
**NH House Science, Technology and Energy Committee**  
**April 11, 2017**

1. Introduction

Chairman Barry, members of the committee, thank you for the opportunity to appear before you today.

My name is Lisa Linowes. I am a resident of the State of New Hampshire and executive director of the Windaction Group, a national organization that tracks and reports on policies that incent renewable energy development, particularly wind energy.

I am here to speak in opposition to SB 129. These incremental changes to NH RPS may appear minor, but their effect on the 2017 RPS Compliance year and on New Hampshire ratepayers are likely to be significant.

2. Class III involving Methane Gas

The recommended change to Class III involving Methane Gas is extremely concerning and, in my opinion, a regretful display a party attempting to manipulate Class III for its own benefit.

**a. NH PUC Action on Class III:** As you are aware, the NH PUC has administratively lower<sup>ed</sup> the Class III mandate every year since 2011 due to a lack of Class III RECs. The bulk of our biomass RECs funnel<sup>ed</sup> into Connecticut where they could secure a higher price as Connecticut Class I. This is the first compliance year since 2011 that the Class III mandate is at 8%.

The abundance of in-region and imported wind and solar has helped the New England states with active RPS policies to meet their Class I requirements. This lowered the Class I price which is good for consumers but made selling into Connecticut less attractive. With compliance comes lower REC prices, as we were all promised. That's how the market was designed and that's what happened. Vintage 2016 Class I REC prices now sell for around \$16/REC; 2017 Class I RECs sell for around \$25-27.

In December, the PUC (Docket DE 16-850) considered again whether to take action to lower the Class III mandate. At the recommendation of the Wood Independent Power producers (IPPs), and over objections of load suppliers, the Commission retained the 8% mandate. This decision, in large part, was based on testimony by the Wood lobby that there would sufficient RECs from biomass and landfill gas.

Now we are debating a change that seeks to exclude some Class III eligible resources from the RPS.

Without commenting on the intentions of those advocating this change, there is one obvious outcome:

*Eliminating landfill gas resources will constrain the supply of Class III RECs, limit NH's ability to meet compliance, and place upward pressure on REC prices. In other words, this bill will lower supply relative to demand and force the price up. This is called market manipulation and should be rejected.*

**b. Retroactive Action to Jan 1, 2017:** The language of this bill seeks the change retroactively to the beginning of the year. This means that owners of these plants would move from Class III to Class-NOTHING! The result could be:

- Generators who may have sold RECs or signed contracts to provide 2017 RECs are harmed.
- Load suppliers who planned for the 8% mandate and made purchases accordingly could be sitting on worthless RECs.

- Possible unanticipated negative impacts to Class I REC supply and prices.
- Higher prices for NH Ratepayers.

Changing policy that impacts markets in such a significant **mid-way** through the compliance year should be strongly discouraged.

**c. Alternative Recommendations:**

- Amend Class III percentage: Before this change is adopted, the PUC and this Committee should understand clearly the impact on Class III REC supplies and consider a corresponding change to the Class III percentage. If we lose 1% of the 8% RECs, for example, the 8% should be reduced.
- Change Eligibility Dates: A second, and preferable amendment would be to change the in-service date for Class I ‘new’ resources from January 1, 2006 to January 1, 1998 as found in both MA and RI, and also move the date for eligible Class III resources to January 1, 1998. Doing so retains these landfill gas resources as active participants in meeting Class I and Class III mandates.

In any event, no changes should be made during this compliance year.

**3. Class III ACP price to \$55**

SB 129 also seeks to increase the Class III ACP price to \$55. There is no market justification to increasing the Class III Subsidy especially given increases in capacity payments for existing resources.

As of June 2017, capacity payments will be increased to \$7.02 per kilowatt month. For a biomass plant, this equates to about \$12 per MWh. By 2019, this capacity payment rises to \$9.55 or around \$15 per MWh. For a Class III biomass facility, the revenue stream would be as follows:

	2017	2019
Energy Sales	\$35/mwh	\$35/mwh
REC Sales (current law)	\$45/mwh	\$45/mwh
Capacity Payment	\$12/mwh	\$15/mwh
Total	\$92/mwh	\$95/mwh

Increasing the Class III ACP to \$55 will drive up the cost of the Class III mandate by \$8.6 million dollars overnight. (Assumes 10.7 million MWh total load)

**4. Final Comments**

These changes, as proposed, may have no bearing on the Alexandria biomass circumstances. These changes, as proposed, could create significant uncertainty in the market, especially if enacted retroactively. Costs could be significant on ratepayers and negatively impact the Class I REC market.

Finally, SB 59 seeks to form a study committee to assess the costs of NH’s RPS; HB 225 will increase the information available to you regarding how our RPS is met. I strongly encourage you to ITL SB 129 and let SB 59 and HB 225 deliver the information you need to make informed decisions about our RPS policy. SB 129, as written, appears to be reactive. Good policy never comes from reactive legislation. Thank you for listening.

Lisa Linowes - 603-838-6588 - lisa@linowes.com



Business and Industry Association  
New Hampshire's Statewide Chamber of Commerce

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April 11, 2017

The Honorable Richard Barry  
Chairman, House Science, Technology, and Energy Committee  
New Hampshire House of Representatives  
Legislative Office Building – Room 304  
Concord, New Hampshire 03301

Mr. Chairman, members of the committee:

I'm here today to express the Business and Industry Association's opposition to certain elements of SB 129, specifically relative to electric renewable energy classes and relative to the class rate for biomass which will result in adverse rate impacts to all customers, with the large energy users being hit the hardest. If left unaddressed, the Business and Industry Association cannot support SB 129. We urge you to find the bill inexpedient to legislate.

SB 129 proposes making significant and costly changes to electric renewable energy classes and the class rate for biomass. A recent rate impact analysis of the changes to Class II (solar) and Class III (biomass) completed by electric utilities estimates that increases in Renewable Portfolio Standard (RPS) compliance costs for all customers would be \$75 million statewide by the year 2025.

The high cost of electricity is a top concern for New Hampshire businesses, particularly manufacturers who drive New Hampshire's economy. Manufacturers account for 11 percent of the state's total output, employs over 10 percent of our workforce, and contribute nearly \$8 billion to the state's economy. (Please see accompanying "New Hampshire Manufacturing Facts" from the National Association of Manufacturers.) New Hampshire electricity prices are consistently 50-60% higher than the national average, year-round, not just in winter months. The high cost of electricity adversely affects job growth and economic activity in our state.

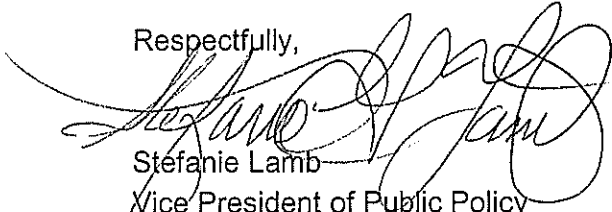
At a time when policy makers should be seeking to lower electric energy prices, SB 129 does the opposite. This will hurt job creation. Just last week, another BIA manufacturing member voiced its concern about growth prospects in the state's high cost environment:

*"... higher paying manufacturing growth is only possible with the concurrent addressing of the energy situation. My company is considering adding a third production line – an \$8.5 mil. investment that will require an additional approx. 20 employees. Our entry level pay rate is \$12 with rates for the higher level positions, up into the mid \$20's. How can I*

*ask my partners and lenders to consider this investment without detailing the increasingly concerning energy supply/cost risk?"*

Unless the onerous provisions of SB 129 noted above are removed from the bill, we urge you to find the bill inexpedient to legislate. I'm happy to address any questions you may have.

Respectfully,

A handwritten signature in black ink, appearing to read 'Stefanie Lamb', written in a cursive style. The signature is positioned to the right of the typed name.

Stefanie Lamb

Vice President of Public Policy

Business & Industry Association of New Hampshire



# New Hampshire Manufacturing Facts

Manufacturers in New Hampshire account for 11 percent of the total output in the state, employing 10.3 percent of the workforce. Total output from manufacturing was \$7.99 billion in 2015. In addition, there were 67,500 manufacturing employees in New Hampshire in 2015, with an average annual compensation of \$77,492 in 2015.

Manufacturing Output and Firms		Employment and Compensation	
Total Manufacturing Output ( <i>\$billions, 2015</i> ) ( <i>Percent share of total gross state product</i> )	\$7.99 11%	Manufacturing Employment ( <i>2015</i> ) ( <i>Percent share of nonfarm employment</i> )	67,500 10.3%
Manufacturing Firms in New Hampshire ( <i>2014</i> )	1,722	Average Annual Compensation ( <i>Manufacturing, 2015</i> ) ( <i>Nonfarm Businesses, 2015</i> )	\$77,492 \$49,780

Sources: U.S. Bureau of Economic Analysis and the U.S. Census Bureau

Figure 1: New Hampshire Manufacturing Output, in Billions of Dollars, 2005–2015

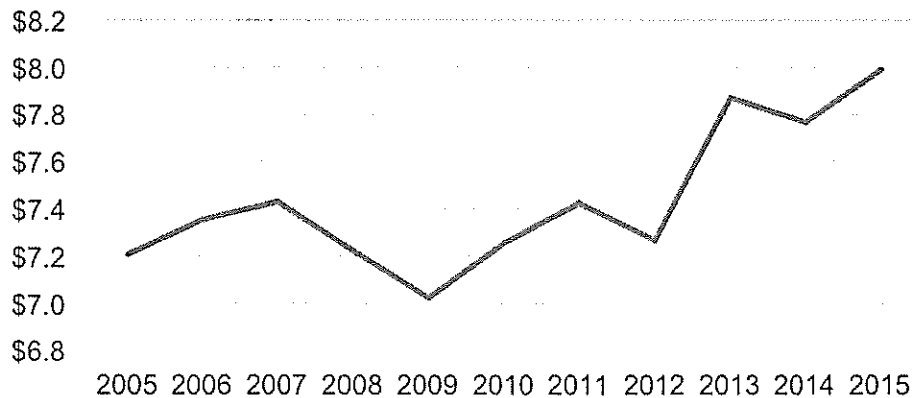
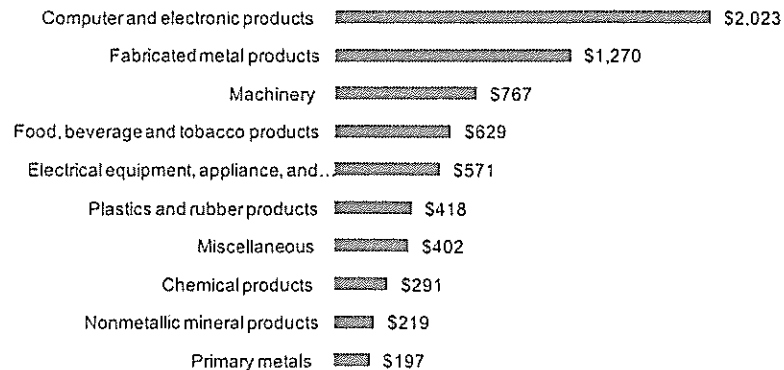


Figure 2: Top 10 New Hampshire Manufacturing Sectors, in Millions of Dollars, 2014



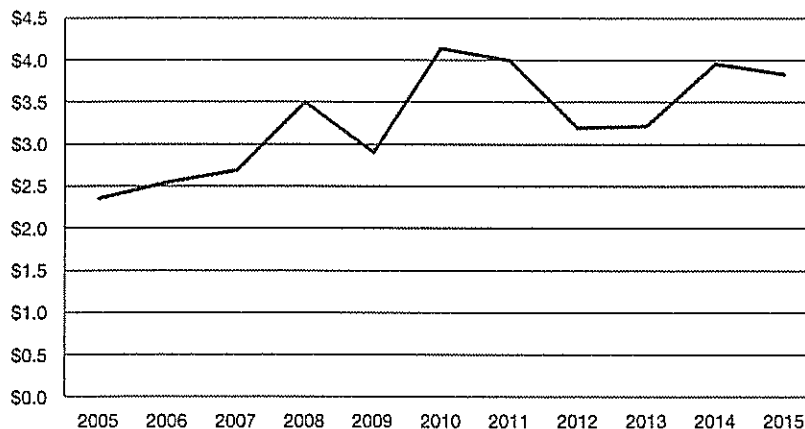
# New Hampshire Export Facts

Manufacturers help to drive New Hampshire's economy, with \$3.83 billion in manufactured goods exports in 2015. That same year, \$1.33 billion in exports was with our free trade agreement (FTA) partners. This helps create jobs in the state, and 25.70% percent of its employment stemmed from exports in 2011. Small businesses comprised 86.9 percent of all exporters in New Hampshire.

Manufactured Goods Exports (\$billions, 2015) (Percent share of total goods exports)	\$3.83 95.60%	Manufactured Goods to Free Trade Agreement Partners (\$billions, 2015) (Percent of total exports, 2015)	\$1.33 34.70%
Growth in Manufactured Goods Exports (2010-2015)	-7.50%	Total Manufactured Goods Exports to TPP (2015)	\$1.29
U.S. Jobs Supported by Goods Exports (2014)	20,048	Top Five Export Markets (Percent of total manufactured goods exports, 2015)	46.60%
Employment from Manufacturing Exports (Export share of manufacturing jobs, 2011)	25.70%	<ul style="list-style-type: none"> <li>• Mexico (13.10%)</li> <li>• Canada (12.50%)</li> <li>• United Arab Emirates (7.30%)</li> <li>• China (6.90%)</li> <li>• United Kingdom (6.80%)</li> </ul>	
Small Business Share of Total Exporters (2013)	86.9%		

Sources: International Trade Administration, U.S. Census Bureau

Figure 3: New Hampshire's Manufactured Goods Exports, in Billions of Dollars, 2000-2015



## Additional Trade Facts

- In 2015, manufacturers in the United States sold \$12.7 billion more in manufactured goods to our FTA partners than we bought from them. The United States has a manufactured trade deficit of \$639.6 billion from countries where no FTAs existed.
- FTA countries: Australia, Bahrain, Canada, Chile, Columbia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Singapore and South Korea.
- Visit [www.nam.org/statedata](http://www.nam.org/statedata) or [www.nam.org/trade](http://www.nam.org/trade) for more information.

# High-priced power for NH industry

## NH industrial leaders sound a warning on high energy costs

By MICHAEL COUSINEAU  
New Hampshire Union Leader

Chocolate maker Lindt & Sprungli says high energy costs are preventing it from expanding its Stratham operation, which produces around 250 tons of chocolate a day.

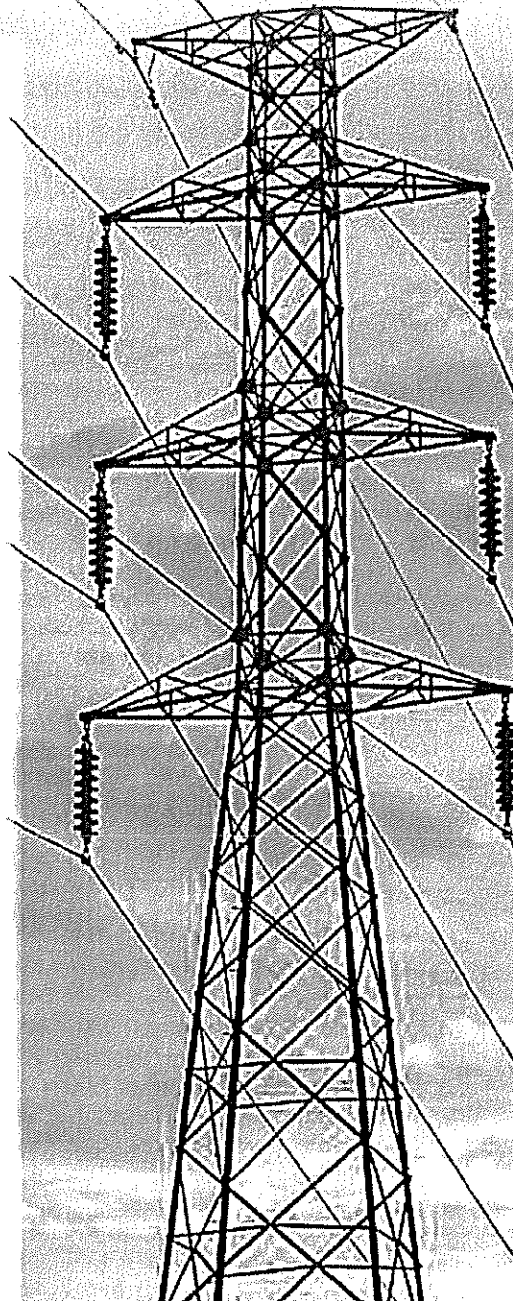
Whelen Engineering, which makes emergency lights for police cars, is considering whether to add a new building in the Charlestown area with 100 new jobs or put it in a cheaper-energy state, such as Georgia.

And gun-maker Sig Sauer said it would save \$1 million to \$1.5 million a year if its New Hampshire facilities operated in a state with lower energy costs.

"If we don't have an assurance of reliability and a drastic reduction in our energy costs, a lot of us will be packing our bags and going," John Olson, Whelen's executive vice president, said at a New Hampshire energy symposium at the Radisson Hotel.

Statistics from the federal government show New Hampshire has the seventh-highest commercial electric rates in the

➤ See Energy, Page A3



New Hampshire: 12.33¢

**New England** 12.19¢  
ME, NH, MA, VT, CT, RI

**Pacific Coast** 10.55¢  
CA, OR, WA

**W. North Central** 7.47¢  
IA, KS, MN, MO, NE, ND, SD

**Mid-Atlantic** 7.13¢  
NJ, NY, PA

**E. North Central** 6.99¢  
IL, IN, MI, OH, WI

**Mountain** 6.86¢  
AZ, CO, ID, MT, NV, NM, UT, WY

**S. Atlantic** 6.72¢  
DE, DC, FL, GA, MD, NC, SC, VA, WV

**E. So. Central** 6.11¢  
AL, KY, MS, TN

**W. So. Central** 5.52¢

This chart shows the average price (cents per kilowatt hour) of electricity for industrial customers in regio across the country

New Hampshire's 12.33 cents is high than the New England average, but it's only the fourth highest in the region:  
R.I. .... 13.41  
Mass. .... 13.26  
Conn. .... 12.99  
N.H. .... 12.33  
Vermont.... 10.37  
Maine..... 9.13

SOURCE: SEPTEMBER 2016 DATA FROM THE U.S. ENERGY INFORMATION ADMINISTRATION

PHOTO: ISTOCK

## Energy

Continued from Page A1

continental United States and the fifth-highest industrial rates. The Granite State ranked fifth for residential rates in the lower 48 states.

Average energy prices for commercial users in New Hampshire stood at 14.41 cents per kilowatt hour compared to 9.67 cents in Georgia and 8.33 cents in Arkansas in September. Industrial users pay 12.33 cents in New Hampshire, 6.18 cents in Georgia and 6.42 cents in Arkansas, according to the U.S. Energy Information Administration.

More electric-generating facilities are needed for New England, according to Carl Gustin, advisor to the New England Coalition for Affordable Energy.

"An all-resource strategy, we believe, is critical," Gustin said.

Higher energy costs could cost the region 23,000 new jobs in 2020 alone.

"Manufacturing," Olson said at Thursday's symposium, "will go away from New Hampshire if we do not as a state, and especially our Legislature behind it, do something which should have been done 10 years ago to reduce the cost and control the cost of energy to the manufacturers."

But Sen. John Reagan, R-Deerfield, said he doesn't think the Legislature should get involved.

Businesses looking to locate in New Hampshire factor in things like availability of workers and cost of doing business. High electric rates are "a cost of production," Reagan said in an interview.

Robert Michalski, vice president of operations at Lindt & Sprungli, said the



*"The concerning part for us is that we are at this point, the company is not willing to grow anymore in New Hampshire. The only way that we're going to be able to grow in New Hampshire further is by finding ways to reduce our energy, our energy costs in this state."*

**ROBERT MICHALSKI**  
vice president of operations  
at Lindt & Sprungli

company's Stratham plant, which employs around 1,500 and occupies about 1 million square feet, pays more than \$5 million a year for electricity and expects that to rise another half-million dollars in 2017.

"The concerning part for us is that we are at this point, the company is not willing to grow anymore in New Hampshire," he said. "The only way that we're going to be able to grow in New Hampshire further is by finding ways to reduce our energy, our energy costs in this state."

Sig Sauer, which employs 1,400 in New Hampshire and has another 200 job openings in the state, is building an ammunition plant in Kentucky.

"Our first option was in New Hampshire, but if you look at energy costs and all the other things I mentioned, there's not even a starting point there," said Jeff Chierepko, Sig Sauer's director of facilities. "We were pursued by a lot of different states and a lot of

them happen to be where energy costs are half."

Olson said Whelen, which employs about 1,000 people in a five-building campus in Charlestown, plans to decide in the next month where to build a new manufacturing plant that would employ 100.

"I'm considering a huge building in Charlestown or that area this year, (but) whether it's built there or whether it's built in Georgia is up for consideration," Olson said. "I want to keep New Hampshire growing."

Sig Sauer operates five of its eight facilities in New Hampshire.

"We'd like them all to be in New Hampshire," Chierepko said. "Our energy costs are through the roof."

Sig Sauer is working on a new 70,000-square-foot plant in Arkansas, Chierepko said.

With energy costs in Arkansas around half as much as in New Hampshire, he said, "it's really a no-brainer."

[mcousineau@unionleader.com](mailto:mcousineau@unionleader.com)

# Energy cost and reliability are hitting NH employers

ELECTRICITY PRICES AND UNCERTAINTIES about future power supply reliability are a drag on New Hampshire's business competitiveness.

Just ask Jeff Chierepko, director of facilities at Sig Sauer, a major defense and law enforcement contractor, in Newington. Sig Sauer has been a job creator for New Hampshire, but that could change. In just a decade its workforce grew from about 120 employees to more than 1,600 in five facilities, four of them in manufacturing. It also operates plants in Arkansas and Oregon and is looking at Florida.

Electricity costs are an important factor. "New Hampshire's rates are about twice those of the other states," according to Chierepko. "Today, any expansion plans have to take into account electricity costs, employee skill levels and the political climate. Electricity costs today, and

concerns about future price volatility, along with the inability in this region to build new energy infrastructure of almost any type put New Hampshire at a distinct disadvantage as we look to expand."

Chierepko adds that the reliability of electricity is also a concern. "We need highly reliable service at precise levels to avoid costly shutdowns, the loss of expensive materials and possible damage to machines, which can cost a half a million dollars or more."

Gordon van Welie, who heads ISO New England, the nonprofit responsible for ensuring the region has a reliable supply of electricity, shares Chierepko's concern about reliability. Van Welie has described a "precarious" and "unsustainable" electric grid operating system over the next few years during periods of extreme cold. That's

## Jim Roche and Carl Gustin

a concern for any business operating 24/7 year-round. It is a huge concern to individual consumers who depend on electricity to keep their homes warm and families fed.

The warnings are not new. The New England governors in December 2013 declared a reliable and affordable energy system requires "investments in additional energy efficiency, renewable generation, natural gas pipelines, and electric transmission."

Recent legislation has focused on renewable generation from wind and solar to address climate concerns. But the region is falling behind on energy infrastructure needed to make electricity more affordable and reliable for Sig Sauer and other employers throughout the region. This includes delays in permit-

ting electric transmission projects and roadblocks to gas pipeline projects.

In 2014, the New England States Committee on Electricity (NESCOE), which reports to the governors, found "all studies [reviewed] concluded that New England needs additional natural gas supply infrastructure to satisfy New England's power system demand."

In 2015, the New England governors agreed that the region "continues to face significant energy system challenges with serious economic consequences for the region's consumers. The problem is greater than any one state can solve alone."

Unfortunately, no organization today looks at the regional impacts of state-by-state policies with a comprehensive approach that considers electric reli-

ability and the environment — or regional economic competitiveness. This approach was recommended by Daymark Energy Advisors in an update of an August 2015 study for the New England Coalition for Affordable Energy, whose members include the region's largest business organizations.

The earlier study concluded the region's energy costs could be \$5.4 billion higher by 2020 unless actions are taken to add energy infrastructure of all types. The update found inaction on infrastructure development has increased the risk of even higher energy costs.

Major natural gas pipeline projects that would relieve constraints have been cancelled or blocked. Transmission lines that would bring large amounts of wind energy from northern New England and hydropower from Canada to load centers

have been delayed (as in the case of Northern Pass) or stopped. And up to one-third of the region's electric power generation has either been retired or is likely to do so in the coming years.

This is a serious near-term challenge for employers. Action is needed now to approve infrastructure projects — pipelines, transmission lines, power generation of all types — based on the concerns the governors expressed in 2013 and have reiterated since.

Just ask Sig Sauer's Chierepko, and other executives throughout New Hampshire, who battle every day to keep their companies competitive with domestic and foreign manufacturers whose energy costs are a fraction of those in New England.

♦  
Jim Roche is president of the Business and Industry Association, New Hampshire's statewide chamber of commerce. Carl Gustin is a consultant to the New England Coalition for Affordable Energy.



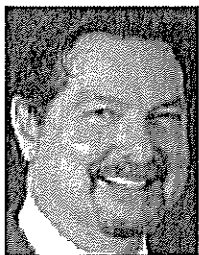
## **Business Perspective**

Business & Industry Association  
of New Hampshire

# How local assessments raise your electric bill

By **JIM ROCHE**  
BIA President

CITIES AND TOWNS throughout the state are inappropriately taking advantage of their ability to independently assess electric, gas and water infrastructure (buildings, pipes, transformers, poles and wires). Many are using unjust assessments and collecting excessive property taxes from utilities.



**JIM ROCHE**

As a consequence, we're all paying for it through higher electricity and other utility costs. As with any other

cost of doing business, electric, gas and water providers pass these local property tax costs on to customers.

Higher electricity costs are bad enough for residential customers. They are serious burdens for manufacturers and other large energy users like ski resorts, health-care providers, colleges, hotels and even employers in financial services with large campuses. If we don't change this and do something soon to lower electricity costs in New Hampshire, we'll see a steady decline in manufacturing, the most important sector of our state by nearly every economic measure.

New Hampshire Electric Co-op, an 84,000-member-owned utility, recently reported a 70 percent increase in municipal property taxes paid over five years, directly attributable to enormous and unjustified increases in the assessed value of their property by many of the towns they serve.

In its March 2017 newsletter to members, the co-op writes, "one town tripled the assessed value of the Co-op's property in a single year. In another town, we added \$2 million of property

in 2015, yet our assessment went up \$8 million. In yet another town, our property valuation was doubled in 2014 and increased by another 25 percent in 2015."

That's why BIA is supporting HB 324, a bill designed to implement a fair and consistent method for assessing property owned by utility companies. HB 324 requires municipalities to accept the assessment conducted by the New Hampshire Department of Revenue Administration (DRA) for valuing and taxing utility property.

This assessment by the DRA already takes place for the purposes of collecting the statewide utility property tax, and municipalities are given this assessment. But many choose to do their own assessments that are double, sometimes triple that provided by the DRA. If the DRA assesses a utility pole at \$100, municipalities should not be allowed to assess the same pole at \$300. That's a money grab that ultimately ends up on utility bills.

This lack of an established standard of assessment is obviously a problem for consumers — residential and businesses alike — yet many cities and towns are actively fighting HB 324. Ap-

► See BIA, Page B2

parently, they believe that when these costs are passed on to customers by utilities, customers will blame the utilities for increasing their rates, not the cities and towns for artificially increasing the tax imposed on utilities.

Utilities are fighting back in the courts. Yet ironically, taxpayers bear the costs on both sides of the legal battle, no matter which party wins. The municipalities' legal costs are passed

on directly through property taxes. The utilities' legal costs are passed on through increased utility rates.

In Bow earlier this year, Eversource won a major victory against this kind of unfair municipal taxation. In 2012, Bow assessed the value of Eversource-owned Merrimack Station coal-fired plant at \$159 million. The utility sued and won a court judgment setting the assessed value at \$18.9 million. The result? Taxpay-

ers in Bow are now on the hook for repaying over \$14 million to the utility, which was unjustly taxed by their town. This could have been easily avoided had HB 324 been in place.

Which is why it was very discouraging for BIA to learn that the New Hampshire House Science, Technology and Energy committee decided to "retain" HB 324 for further study. Sometimes this happens because a bill legitimately needs more work. In this case, however, the bill was retained as a clever parliamentary maneuver to make the legislation "go away," sort of death-by-neglect. HB 324 is not a complex issue requiring months and months of study. It's a one page bill that should be passed by the Legislature.

This is not the first time the Legislature has dealt with utility property tax assessment issues. Just last year the Legislature passed, and the governor signed into law, legislation establishing a formula for valuing poles and conduit associated with telecommunications providers.

Although the solution was different from that proposed in HB 324, the underlying objective was the same — to end widely varying and often inflated property tax assessments by municipalities. Electricity, gas and water users deserve fair and transparent assessments, something they would finally get with the passage of HB 324.

◆  
Jim Roche is the president of the Business & Industry Association, New Hampshire's statewide chamber of commerce. The BIA produces this column monthly exclusively for the New Hampshire Sunday News.

MY TURN

## Tilting at windmills on energy prices

Renewables and efficiency don't add up to a solution

By **JIM ROCHE**  
For the Monitor

The fictional character Don Quixote maintained a staunchly hopeful attitude in his gallant adventures. His comportment reminds me of those who think New Hampshire and New England can solve our electrical energy cost crisis by simply investing more in energy efficiency and renewable energy like wind and solar.

Like Don Quixote, they are tilting at windmills.

New Hampshire's electrical energy prices are consistently 50 to 60 percent higher than the rest of the contiguous United States. Year-round, not just during the winter months. This is a fact.

On top of high costs, "existing natural gas pipelines are inadequate to serve growing peak demand for heating and power generation needs in the winter," according to the New England's Independent System Operator, a not-for-profit, independent agency charged with ensuring availability

charged with ensuring availability of competitively priced wholesale electricity by the Federal Energy Regulatory Commission.

New England is increasingly dependent upon natural gas for electric generation. In 2000, 15 percent of electricity production came from burning natural gas. Today that figure is close to 50 percent. Our situation becomes more precarious over the next few years. That's because more than 30 percent of the region's other, more traditional sources of electric power (burning coal and oil, and nuclear generation) are retiring or at risk of retiring.

The Business & Industry Association, New Hampshire's statewide chamber of commerce, supports an "all of the above" ap-

SEE ENERGY B2

## We must focus on energy infrastructure

ENERGY FROM B1

proach to meeting our energy needs. This includes energy efficiency and renewables like wind and solar.

Our manufacturing members (and businesses from all sectors of our economy) have long recognized cost savings associated with energy efficiency. They've invested millions of dollars to tighten building envelopes (windows, doors, wall and roof insulation, etc.); streamlined processes and systems for economies of scale; installed efficient HVAC and lighting systems; used efficient motors and machinery in production; and much more.

The fact is, businesses have a very strong incentive to invest in every method of efficiency to make their operations more cost-effective and competitive.

They've been doing this for years.

A growing number of BIA members are also investing in renewable

*Until cost-effective battery storage*



*technology  
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before these kinds  
of renewables are  
able to meet our  
energy needs.*

energy. But the fact is, wind and solar account for just 3 percent of the region's generating capacity in spite of strong federal and state financial incentives.

Until cost-effective battery storage technology advances, or the sun never sets and wind always blows, it will be a very long time before these kinds of renewables are able to meet our energy needs. Energy efficiency and renewables by themselves

are woefully inadequate to meet our near-term electrical energy needs. In the meantime, businesses are making decisions affecting our economy.

With 400 leading employers in our membership, we hear from businesses all the time about plans for growth outside New Hampshire. To be sure, high electricity bills alone are not the only factor in determining where companies grow, but it is a factor, and a big one for manufacturers.

Manufacturing is our most important economic sector by nearly all economic measures – contribution to gross state product, employee compensation, exports, subcontracts, jobs and more. Manufacturers use lots of electricity to make their products. It's one of their biggest inputs. Many other states, often where New Hampshire manufacturers have sister locations, boast electrical energy prices that are half or less than those in New Hampshire.

When our manufacturers grow elsewhere – or worse, shift jobs elsewhere – New Hampshire loses.

The near-term solution to our state's and region's electrical energy cost crisis is adding new energy infrastructure. While BIA has not endorsed any specific project, there is no question we need more electricity for our regional grid in order to lower prices. There is simply no way to energy-efficiency-and-renewable-energy our way out of this crisis. At least not before thousands of jobs are lost to more competitive areas of the country.

Policymakers need to look beyond fantastical scenarios espoused by some and act to bring more energy into our region now.

*(Jim Roche is president of the Business and Industry Association.)*

**New Hampshire House  
Science, Technology and Energy Committee**

**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.**

**Testimony on behalf of Retail Energy Supply Association**

My name is Doug Patch. I am an attorney with the law firm of Orr & Reno here in Concord. I am here today on behalf of the Retail Energy Supply Association (“RESA”)<sup>1</sup> to speak with regard to a proposed amendment to 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*. RESA appreciates the opportunity to provide comments regarding this bill.

RESA members, as retail energy or competitive suppliers, are active participants in the retail competitive markets for electricity, including the New Hampshire retail electric market. Several RESA member companies are licensed by the Commission to serve residential, commercial and industrial customers in New Hampshire and are presently providing electricity supply service and related innovative energy products and services to all classes of customers in the state.

Retail energy suppliers have become active in the market for electricity in New Hampshire which was first established through electric restructuring after the original restructuring law was passed in 1996 by the NH Legislature. The markets for electricity took a few years to develop. Large commercial and industrial customers went to the market earlier than smaller customers, but in recent years large numbers of residential and small commercial customers have also taken advantage of the market to get lower rates than they would get from their electric distribution company’s default service. The most recent switching statistics for customers in Public Service Company of New Hampshire’s territory (representing about 70% of the retail electric customers in the state) shows that during the fourth quarter of 2016, 56.3 % of the kilowatt hours of electricity sold to customers in PSNH’s territory were sold by competitive suppliers. In December this included 25% of the kWh sold to residential customers and 98% of the kWh sold to large commercial and industrial customers. The ability to choose an electric supplier and thereby reduce the amount paid for electricity has thus become very popular in New Hampshire. Similar migration numbers are available for Unitil and Liberty Utilities. We can provide those reports if it would be helpful.

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<sup>1</sup> The comments expressed in this filing represent the position of the Retail Energy Supply Association (RESA) as an organization but may not represent the views of any particular member of the Association. Founded in 1990, RESA is a broad and diverse group of more than twenty (20) retail energy suppliers dedicated to promoting efficient, sustainable and customer-oriented competitive retail energy markets. RESA members operate throughout the United States delivering value-added electricity and natural gas service at retail to residential, commercial and industrial energy customers. More information on RESA can be found at [www.resausa.org](http://www.resausa.org).

We are here to support an amendment to SB 129 which we recommend you approve in the event that you report the bill out as ought to pass. Without this amendment RESA opposes the bill. The purpose of this amendment is to protect customers from an unanticipated and unwelcome cost increase. The amendment which RESA supports would grandfather in contracts for electricity supply which are in effect as of the effective date of the act so that customers will not have to pay the increased costs that will result from this new law during the term of those preexisting contracts. The language appears in the amendment. This is the type of thing which the Legislature has done in the past when it has passed RPS legislation that will result in an increase in the costs those customers would normally have to pay. I can provide copies of the 2012 law which amended the RPS statutes and contained language very similar to what we are supporting here today. That was Chapter 272 of the Laws of 2012, section 18.

As a general matter, most retail agreements which competitive suppliers have with their customers are 1-2 years in duration and those agreements would have been entered into at any point during the prior two years. The load that is served by competitive suppliers under those agreements will thus, over the course of the two years following the effective date, gradually no longer be covered by the amendment. We suspect that the majority of the load will be off of preexisting agreements after one year, though it would be next to impossible to determine when each of those agreements would expire and to calculate how many MWh were covered by each agreement.

RESA believes that this amendment will be fairer to customers who entered into an agreement to purchase power for a particular rate and should not have to pay more for that power during the term of the agreement. Without this amendment suppliers, who are liable for the alternative compliance payments under the RPS law, RSA 362-F:10, will have to pass these new costs on to their customers and thereby raise the rates which were previously agreed to during the term of an existing agreement.

For the aforementioned reasons, RESA strongly supports the proposed amendment to SB 129. I would be happy to answer any questions.

Douglas L. Patch  
Orr & Reno, P.A.  
45 South Main Street, P.O. Box 3550  
Concord, NH 03302-3550  
Phone: 603-223-9161  
[dpatch@orr-reno.com](mailto:dpatch@orr-reno.com)

April 11, 2017

1725974\_1

STATE OF NEW HAMPSHIRE  
Executive Council

JOSEPH D. KENNEY  
EXECUTIVE COUNCILOR  
DISTRICT ONE



STATE HOUSE ROOM 207  
107 NORTH MAIN STREET  
CONCORD, NH 03301  
(603) 271-3632

**Statement of Executive Councilor Joseph Kenney, District 1 in  
support of SB 129**

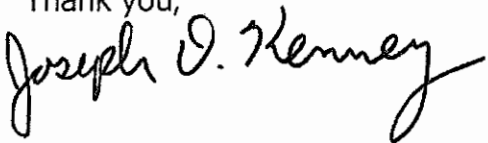
For the record, my name is Joseph Kenney and I serve as the Executive Councilor for District 1 which includes all of the towns and cities in Coos, Carroll and Grafton counties. Additionally, I represent towns and cities in Strafford, Belknap, Sullivan and Merrimack counties for a total of a 108 towns and 4 cities to include 23 unincorporated towns. While I am not an expert in all of the provisions of the bill, I want to speak specifically to my support of the provisions related to the biomass industry.

While I understand that biomass is a statewide industry, I tend to focus on the specific needs of the North Country. All of the six (6) small biomass plants covered by SB 129 are in my district. They support jobs within the plants, but also many jobs outside the plants in terms of the suppliers and service industries that surround them. Loggers, landowners, foresters and sawmills all rely on these biomass plants as a major market for their low-grade wood. The plants are critical to the operations of our forest products industry. The North Country needs these jobs. To lose these plants would be devastating. We are already seeing significant impact with the temporary shut-down of the smallest of these six (6) biomass plants; the one in Alexandria.

Some may argue that we can't afford SB 129. I believe we can't afford to LOSE this industry and its jobs. When we talk about lowering energy rates, I agree with the "all of the above" strategy. The strategy must include biomass energy from wood chips because it has a significant impact on our state economy and it is our local fuel source. Biomass is not the driving force behind New England's high energy rates and I know this committee and others are working towards tackling those complex energy issues. But I ask that as you work to lower energy rates, you keep in mind those New Hampshire industries, like biomass, that our State, and in my case, the North Country, relies upon.

Thank you for all the work that you do for this State. I appreciate your time and consideration of SB 129 – it is an important bill about jobs.

Thank you,

A handwritten signature in black ink that reads "Joseph D. Kenney". The signature is written in a cursive style with a large, sweeping "J" and "K".

Joseph D. Kenney  
Executive Councilor District 1  
Wakefield, NH  
(603) 581-8780

**Testimony on Behalf of New Hampshire Legal Assistance**  
April 11, 2017

Before the House Committee on  
Science, Technology and Energy  
Regarding  
**Senate Bill 129 (2017 Session)**

An Act requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund

**Introduction**

My name is Alan Linder. I am a New Hampshire attorney. I am testifying on behalf of New Hampshire Legal Assistance regarding Senate Bill 129 (2017 Session).

New Hampshire Legal Assistance (NHLA) provides free legal services to low income households, seniors, and non-profit organizations. NHLA's services include representation before the NH Public Utilities Commission (PUC) and the legislature regarding electric, gas and telecommunications. NHLA's representation before the PUC includes issues relating to energy efficiency, renewable energy, and programs and rates that benefit low and moderate income gas and electric customers.

**Position of New Hampshire Legal Assistance**

New Hampshire Legal Assistance supports passage of Senate Bill 129 (2017 Session). This testimony will focus on the sections of SB 129 relating to directing a portion of the renewable energy fund to benefit low and moderate income residential customers, including the financing or leveraging of financing for low-moderate income community solar projects in manufactured housing communities or in multi-family rental housing.

## Discussion Regarding Senate Bill 129

### 1. Market Barriers.

The PUC has found that low and moderate income customers face significant market barriers to investing in cost-effective energy efficiency measures and renewable energy measures and services. Many low income customers have little or no discretionary income or borrowing power. Indeed, many low income and senior households are often forced to choose between paying for food and necessary medical care and paying their rent and utility bills. In addition, their utility bills often take up a disproportionately high percentage of their fixed and low incomes.

### 2. Lack of Access to Affordable Renewable Energy Measures and Services.

While low and moderate income customers can qualify for certain energy efficiency measures and services through existing PUC and utility sponsored energy efficiency programs, this generally does not include renewable energy services and projects.

### 3. The Need for Renewable Energy Services and Projects for Manufactured Housing and Multi-family Rental Housing.

Many low income and senior households live in manufactured housing and multi-family rental housing. While residents of manufactured housing and multi-family rental housing can benefit from energy efficiency services through PUC and utility sponsored programs, this generally does not include renewable energy services and projects. There are many multi-family rental dwellings and manufactured housing parks and cooperatives in New Hampshire. Residents of these dwellings could benefit from cost-effective renewable energy projects, including community solar projects.

### 4. Jobs and Economic Development.

Extending renewable energy services and projects to low and moderate income households who reside in manufactured housing parks and multi-family rental housing would help promote jobs and economic development in New Hampshire.

## Conclusion

For all of the above reasons, New Hampshire Legal Assistance supports passage of SB 129 (2017 Session).

Dear Representative Barry,

My name is Tom Ryan and I reside in Henniker.

As a Licensed Professional Forester with nearly 40 years of experience, I am testifying in favor of SB 129.

I am the company Forester with Hopkinton Forestry & Land Clearing. The company employs 28 people as loggers, mechanics, truck drivers, and support staff such as myself. We conduct Forestry operations for private landowners, state foresters, as well as consulting foresters.

With approximately \$5 million dollars of equipment invested in mechanical whole tree chipping, the company is committed to proper forestry techniques made available through the biomass markets.

Due to the biomass market, many properties that normally would not be placed under management due to low value timber, are now properly thinned and are set up for periodic harvests. Properties that would lose the timber value to development being locked in amongst houses, now can be harvested yet maintain the aesthetics of the property with chipping the tops for a clean forest floor.

Markets that didn't exist when I first entered the profession kept us from thinning hemlock stands. A property I supervised the cutting on 30 years ago was just recently thinned in that hemlock stand, thanks to the biomass markets.

One recent job entailed clearing a large over mature pine stand to convert the property to field for corn silage for our dairy farm customer. The cost of stumping was much lower due to the biomass market. There were 160 trees that were dead that were utilized and paid for not to mention all of the top material. Our customer was able to be a dairy farmer actually making a profit (from timber).

There are many other instances where the biomass market has helped many of our clients over the years, but to avoid redundancy, I will be brief and ask you to support a bill that is very favorable to the forestry community, and allows me to support my family.

Respectfully submitted,

Tom Ryan  
Licensed Forester; NH # 41

A handwritten signature in black ink that reads "Tom Ryan" followed by a long horizontal flourish line extending to the right.





The State of New Hampshire  
**Department of Environmental Services**



Clark B. Freise, Assistant Commissioner

April 11, 2017

The Honorable Richard Barry  
Chair, House Science, Technology, and Energy Committee  
Legislative Office Building, Room 304  
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 Chair Barry and Members of the Committee:

Thank you for the opportunity to comment on Senate Bill 129, requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund. The New Hampshire Department of Environmental Services (NHDES) supports this bill.

RSA 125-O:23, III(a) requires a certain percentage of the Energy Efficiency Fund to fund the low-income core energy efficiency program. Similarly, this bill would require a portion of the Renewable Energy Fund to fund a low-income renewable energy program. Incentivizing additional renewable energy is a worthy goal, as 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](http://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 Richard Barry  
Chair, House Science, Technology, and Energy Committee  
April 11, 2017  
Page 2

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](mailto:craig.wright@des.nh.gov), 271-1088) or Michael Fitzgerald, Assistant Director ([michael.fitzgerald@des.nh.gov](mailto:michael.fitzgerald@des.nh.gov), 271-6390).

Sincerely,

A handwritten signature in black ink, appearing to read 'Clark B. Freise', with a stylized flourish at the end.

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

PETERS LOGGING  
ERROL & BEN PETERS  
222 WEST END ROAD  
LANDAFF, NH 035

April 11, 2017

Rep. Richard Barry, Chairman  
N.H. House Science, technology and Energy Committee  
Room 304, Legislative Office Building  
Concord, NH 03301

RE: Urging you and the committee to support SB 129

Dear sir

Senate Bill 129 supports N.H.'s biomass markets by fixing a flaw in the N.H. Renewable Portfolio Standard (RPS) law, specially the biomass renewable energy certificate (REC) pricing for the six independent biomass plants. To assist in keeping these plants operation, it is vital you pass this bill.

First a little about our business. My son and I own a small logging company specializing in timber stand improvements in northern Grafton County located between three biomass generating plants. In 2016 we grossed a little over \$850,000.00 in total timber sales. Of this about \$300,00.00 or 9,000 tons of this was from biomass production , close to 1/3 of our income. The rest was from logs, over 1,000.000 board feet of soft and hard wood timber varieties and 1,000 plus cords of pulp.

Besides my son and myself, we employ three part time workers with a total payroll for the part time workers of about \$20,000.00. My son and I take about \$50,000.00 from the business each, a small amount for the investment - about \$2,000,000.00 based on new prices. Most of our equipment is less than 5 years old. The part time workers mainly drive the truck loads of chips and deliver them to the mill. The rest of the work is done by my son and I.

As I said earlier we do mainly timber stand improvements looking to improve the forests for the future. A good year for us is about 300 acres total with lots varying in size from 10 acres to 400 acres. Many lots we only do part of a year so the land owner does not get hit with big tax bills. We don't mind as we come back again and again. Some lots we have cut 3-4 times in the last 20 years, some yearly.

Biomass production is a big boost to the State's economy. There is a cost, but it is far exceeded by the jobs and the economic benefits to the state. The biomass industry provides over 900 jobs in the plants, forest and local communities, over \$50 million in payroll and \$254 million in annual economic activity, and Over \$7 million is paid to the towns and state in annual taxes and fees. Biomass provides a market for low grade timber and for sawmill waste as well as a market for urban and residential tree trimming

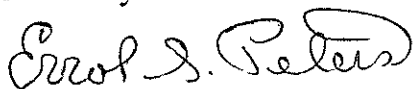
We support Senate Bill 129. We need Senate Bill 129 for us to continue doing this type of work. Without it we would have to drastically change our style of work and philosophy. We can now manage woodlands to meet landowners objectives, improving the quality of the timber in the stand and providing food and cover for wildlife - animals and birds. We can help control forest pest outbreaks by removing diseased trees completely from the site. We can create recreational trails for the landowner and others. And we can make the wood lot more aesthetically pleasing to its visitors. Without a biomass market we could not do most of these things.

Senate Bill 129 will assist in keeping the state's biomass power plants operating. The benefits these plants provide the state and local economies far exceed any additional costs to the state. Biomass is an important part of the state's forest products industry.

Again, We strongly urge you to support Senate Bill 129. It is hugely important to all of us.

Thank you for allowing me to testify in support of Senate Bill 129.

Sincerely



Errol S Peters  
Peters Logging



April 11, 2017

Rep. Richard Barry, Chairman  
N.H. House Science, Technology and Energy Committee  
Room 304, Legislative Office Building  
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 Barry and Members of the Committee:

My name is Raymond Berthiaume, a resident of the Town of Lancaster. I would like to thank you for the opportunity to speak to you today, in support of Senate Bill 129. I am a licensed Forester working for, and representing, Wagner Forest Management, Ltd., of Lyme, NH. We are the land managers of over 125,000 acres of private forest land that is owned by a number of our clients. On an annual basis, management of these lands produces approximately 4000 truckloads of forest-based products, under service contracts with over a dozen professional logging/trucking contractors. These contractors collectively employ over 150 employees, and support multiple other businesses throughout the year.

Healthy markets in general and healthy low-grade markets specifically, are vital to the successful management of these private lands, and for multiple reasons. Not only do these markets help to maintain cash flow and facilitate use of all products removed from the forest, these healthy, viable biomass markets allow all aspects of forest management to occur.

Wildlife habitat management directly depends on available outlets for low-grade and otherwise non-commercial products. Approximately 5000 acres of lands that we manage in the Twin Mountain area of Carroll and Bethlehem are devoted specifically to wildlife habitat management. When completed, these lands will continually supply habitat for American Woodcock to nest, breed, feed, and raise their young. By managing for the American Woodcock, multiple other songbirds, small mammals, large game mammals, and other game birds, are also provided with necessary habitat to live, feed, and reproduce. The availability of the local biomass power facilities has made this project possible. Without these markets, creation and maintenance of these habitat areas would not be economical or feasible.



# NEW HAMPSHIRE FARM BUREAU FEDERATION

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

April 11, 2017

House Science, Technology and Energy Committee  
C/o The Honorable Richard Barry, Chairman  
Legislative Office Building, Room 304  
Concord, NH 03301

**Re: NH Farm Bureau Support for SB 129 and the Wood-Energy (Biomass) Provisions Contained in the Bill.**

Dear Mr. Chairman and Members of the Committee:

Farm Bureau supports the modifications contained in SB 129 to the RPS renewable energy Class III, stabilizing and ensuring the continued operation of the state's wood-fired power plants. These changes 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 wood-fired 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, thereby 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.

**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 is a fast acting liming agent. The alternative, agricultural lime (from limestone), must be imported into the state at a greater expense.**

Loss of the state's wood-fired plants would have a disastrous effect on the state's forest economy and the rural economy as a whole. 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.*

Amendment to SB 129

Amend the bill by replacing section 10 with the following:

10 Phase-In for Existing Supply Contract Load. This act shall be construed to apply only prospectively and may not be applied or interpreted to have any effect on or application to any electrical power supply contract entered into by a competitive energy supplier prior to the effective date of this act.

11 Effective Date. This act shall take effect upon its passage.

# High Ridge Tree Farm

1999 New Hampshire Outstanding Tree Farmers

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

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April 11, 2017

Representative Richard Barry, Chairman  
House Science, Technology and Energy Committee  
Legislative Office Building, 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 for 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 it has grown to 963 acres in Lyndeborough and Greenfield. 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





April 11, 2017

Rep. Richard Barry, Chairman  
N.H. House Science, Technology and Energy Committee  
Room 304, Legislative Office Building  
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 Barry and members of the Committee:

The New Hampshire Timberland Owners Association (NHTOA) thanks you for the opportunity to speak in support of Senate Bill 129. 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 total forest products industry in New Hampshire, which includes the biomass power plants we will discuss today, employs more than 7,700 people directly, and contributes nearly \$1.4 billion dollars to the state's economy.

The NHTOA supports the biomass provisions in this bill, as they will assist in 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. We can see the vital need for SB 129 in last week's announcement of the temporary closure of one of the six biomass plants, Alexandria, due to very low energy and renewable energy certificate market prices.

#### 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 standard silvicultural work, biomass markets are also an important tool for watershed management. Several of the state's largest municipal watersheds use biomass harvesting to manage their timberlands to ensure clean water. Wildlife and recreation managers also regularly use biomass markets for habitat and recreation work. Installing food plots for game and non-game species, creating habitat diversity, and installing hiking or motorized vehicle recreational trails are all accomplished through biomass harvesting. Without biomass markets, this work would be much more difficult and costly.

Lastly, in addition to healthier and more vigorous woodlots, clean water, improved wildlife habitat, and recreational trails, the forest management work that biomass markets encourage improves the quality and economic value of timberlands. This makes timberland ownership more economically viable, ultimately benefiting the entire timber supply chain (landowners, foresters, loggers, and sawmills) and the communities these individuals and business are located.

#### Economic impact

To help quantify this economic impact, earlier this year the NHTOA retained Plymouth State University's College of Business Administration (PSU) to conduct a study to estimate the economic contribution the six independent biomass electric power plants make to the New Hampshire economy. Using a customized economic impact model and actual data gathered from the six power plants, PSU calculated their economic contribution for the 2016 calendar year.

This study shows:

- The grand total of the direct effect (the six independent biomass electric power plants), indirect effect (supply industries), and induced effect (service sector) economic activities is approximately **932 jobs (\$50.9 million in payroll). And the total economic output to the state's economy is \$254.5 million each year.**
- The six biomass plants contribute \$7.3 million in tax revenues to state and local governments from all sources (direct, indirect and induced effect).

Because all facets of the timber industry are connected to low-grade timber markets, these economic figures are not surprising.

- **Landowners:** With two-thirds of the state's forests considered "low-grade," biomass power plants provide landowners a market for those low-grade trees. This adds value to timberland, which translates into higher productivity and ultimately higher property taxes for local communities.
- **Loggers:** To cash-flow a timber sale, loggers need markets for all the species and grades of timber on the woodlot. Because biomass power plants can accept any species and grade of timber, it is an important market for many timber sales.

- Foresters: To sustainably manage a forest and improve forest health and forest productivity, inferior diseased and malformed trees must be removed. Because these trees rarely produce sawlogs, biomass power plants are the obvious market for them. This market is also important for management work dealing with the increasing prevalence of new invasive tree pests (e.g. Emerald Ash Borer, Hemlock Woolly Adelgid, and Red Pine Scale).
- Sawmills: Open burning of slabs is not presently permitted by state law. Instead, sawmills chip their slabs and send the chips to a paper mill or biomass power plant. With the contraction of New England's pulp and paper industry, biomass power plants are becoming increasingly important for managing this material.

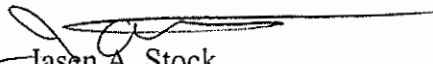
This economic impact is statewide. According to the New Hampshire Department of Revenue Administration's (NH DRA) timber tax data, during the 2014/2015 tax year 1,349,018 tons of biomass was harvested in 209 towns in New Hampshire. On a county-by-county basis, the data shows biomass is an important low-grade timber market for several southern counties.

Belknap	148,046 tons
Carroll	102,415 tons
Cheshire	78,303 tons
Coos	151,346 tons
Grafton	199,985 tons
Hillsborough	163,472 tons
Merrimack	261,910 tons
Rockingham	96,311 tons
Strafford	55,646 tons
Sullivan	91,886 tons

Although these county biomass harvesting numbers will vary year to year, we believe these data show the broad land management and positive economic impact that biomass markets have on the entire state. Combining the positive economic impact with the forest management benefits means the total benefits New Hampshire gleans from the biomass industry are significant. For these reasons, the NHTOA requests you vote Ought To Pass on Senate Bill 129.

Again, thank you for allowing me to testify on this important piece of legislation.

Sincerely,



Jason A. Stock  
Executive Director

Attach

CC: N.H. House of Representatives Science, Technology, and Energy Committee

## Biomass Statewide Annual Economic Benefits\*

### 6 Independent Biomass Power Plants

3/1/2017

Local Economic Activity Current Statewide Biomass Industry - 6 independent power plants			
	Jobs	Payroll	Annual Economic Impact (includes value added and payroll)
6 Independent Biomass Power Plants	120	\$11,600,000	\$158,900,000
Suppliers (e.g. commercial loggers)	583	\$28,100,000	\$64,500,000
Service/Support businesses (e.g. real estate, wholesale trade, etc.)	228	\$11,200,000	\$31,100,000
<b>Total</b>	<b>931</b>	<b>\$50,900,000</b>	

**Total annual economic impact**

**\$254,500,000**

\*Source: Plymouth State University 2017 Economic Contribution of Biomass Electric Power Generation Industry (6 plants)



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

April 10, 2017

Rep. Richard Barry, Chairman  
N.H. House Science, Technology and Energy Committee  
Room 304 Legislative Office Building  
Concord, NH 03301

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 NH Business owners for 26 years. We are testifying in favor of SB 129.

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: Sanelis; 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. 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. 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.

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. We would ask you to support bill SB 129.

Thank you the opportunity to testify before your committee and your service to the State.

Dave and Marlo Herrick



MADISON LUMBER MILL  
PO BOX 224  
WEST OSSIPPEE NH 03890

April 11, 2017

Rep. Richard Berry, Chairman  
N.H. House Science, Technology and Energy Committee  
Room 304, Legislative Office Building  
Concord, NH 03301

RE: SB 129

Dear Chairman Berry 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 information about MLM is 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
- Produced 18,000 tons of chips as a byproduct of producing lumber (600 tractor trailer loads)

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 the biomass provisions of SB 129 and its importance to Madison Lumber Mill, New Hampshire's economy and New Hampshire's forest products industry.

The changes to New Hampshire's Renewable Portfolio Standard (RPS) proposed by SB129 are critical to the future operation of NH's biomass plants. As currently structured, the RPS is not effectively addressing the needs of New Hampshire's wood biomass industry. This bill is an investment in New Hampshire, its' economy and its' way of life. It is an investment with a real and measurable payback.

New Hampshire's forests are naturally dominated by low grade trees and parts of trees. Our logging industry is dependent on the ability to remove and economically market all parts of the tree. NH's biomass market allows loggers, foresters and landowners to practice exemplary forest management by removing diseased, rotten, and poor quality trees that would otherwise not be possible. Biomass harvesting produces healthy forests AND other forest products such as sawlogs, pulpwood and firewood. Without biomass, much of this harvesting would not occur and other sectors of the industry would be greatly diminished or disappear. There is no alternative market able to absorb this low grade material.

Historically New Hampshire's sawmill and forest industry has relied heavily on New Hampshire biomass plants and Maine pulp mills as markets for its low grade material. The recent mill closures and paper production curtailments in Maine (over 4 million tons since 2012) 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.

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 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 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 would deal a devastating blow to the entire forest products industry, including sawmills, landowners, loggers, foresters 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,

A handwritten signature in black ink, appearing to be 'E. Witt'.

Edward G. Witt, Sr.  
Log Procurement Forester



April 11, 2017

Rep. Richard Barry, Chairman  
N.H. House Science, Technology and Energy Committee  
Room 304, Legislative Office Building  
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 Barry and members of the Committee:

As plant manager of Pinetree Power - Tamworth, LLC I thank you for the opportunity to speak in support of Senate Bill 129.

Pinetree Power – Tamworth, LLC facts

- Began commercial operation on 01 December 1987
- 20 full time employees
  - The average tenure is nearly 15 years
  - Many employees are active in the community - coach sports, participate on local boards, partake in volunteer opportunities, etc
- Sell 160,000 MWhrs annually onto the grid
- Purchase \$10M of whole tree wood chips annually
  - 325,000 tons within 50 mile radius
  - 51 producers – of which 20% have been delivering to the plant for more than 20 years
- Inject \$4.5M annually into economy via capital upgrades and operations & maintenance expenses
  - Most vendors and suppliers are within a 75 mile radius
- Assists ISO-NE with fuel diversification – avoiding the region from being dependent on widely fluctuating natural gas prices.
- 3750 tons of wood ash is used as a valuable fertilizer for local farmers every year

Pinetree Power – Tamworth, LLC is a baseload, renewable, independent power producer that earns its income in the open electric market. We are not guaranteed a rate of return for the MW's that are produced.

70% of electricity produced in New England is from natural gas. This means natural gas dictates the wholesale power price. The biomass to energy facilities cannot compete with natural gas



combined cycle power plants because 50% of the wood chip is water. That means that 50% of all the heat produced in a boiler goes into drying the wood chip in order to produce the vapors which can then ignite and yield a flame.

This inherent efficiency loss is offset by income earned from the sale of Renewable Energy Credits (REC's).

Failure to obtain REC's at a reasonable price will be disastrous.

Very Respectfully,

A handwritten signature in black ink, appearing to read "R. Lussier".

Robert Lussier  
Plant Manger  
Engie North America

CC: N.H. House of Representatives Science, Technology, and Energy Committee



## 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](http://www.nefainfo.org/uploads/2/7/4/5/27453461/nefa13_econ_importance_nh_final_web.pdf)

Since 1999, the Northern Forest region has lost 11 pulp mills & 7 wood energy plants

New York

- Deferiet (pulp)
- Lyons Falls (pulp)
- Chateaugay (wood energy)

New Hampshire

- Groveton (pulp)
- Berlin (pulp)
- Hopkinton (wood energy)
- Concord (wood energy)
- Alexandria (wood energy)

Maine

- Westbrook (pulp)
- Bucksport (pulp)
- Old Town (pulp)
- Lincoln (pulp)
- Millinocket (pulp)
- East Millinocket (pulp)
- Madison (pulp)
- Greenville (wood energy)
- Sherman (wood energy)
- Deblois (wood energy)

**SB 129 Testimony NH House – Science & Tech 4/11/17**

Charles Levesque  
President  
Innovative Natural Resource Solutions, LLC (inrslc.com)  
37 Old Pound Road  
Antrim, NH 03440 603-588-3272 levesque@inrslc.com

**Regional annual low-grade wood market**

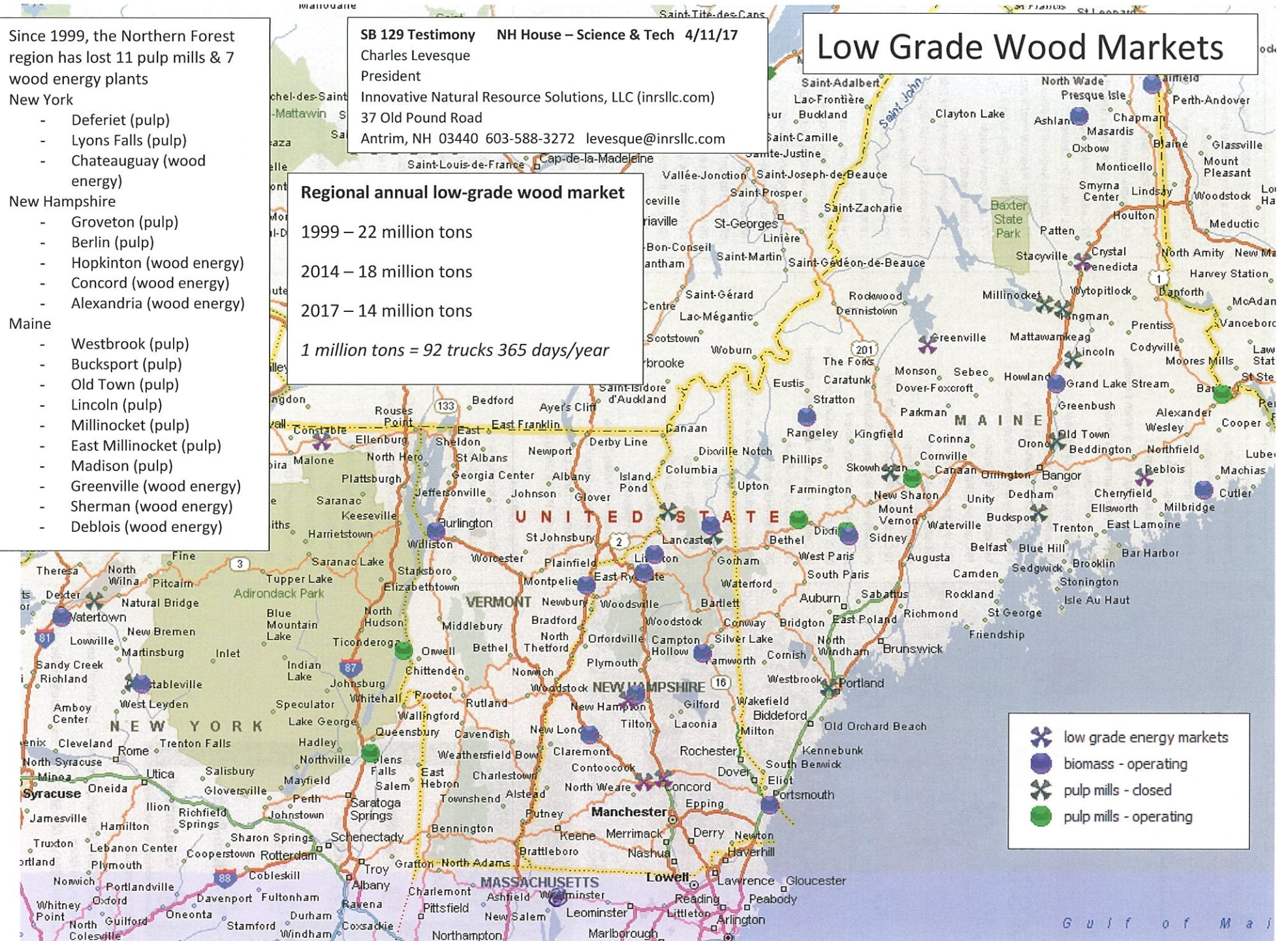
1999 – 22 million tons

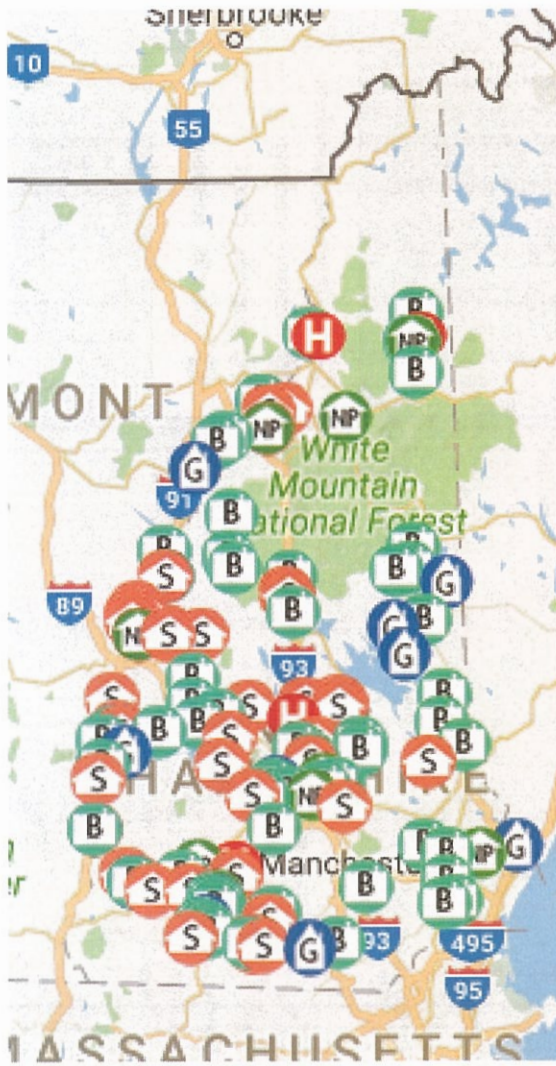
2014 – 18 million tons

2017 – 14 million tons

*1 million tons = 92 trucks 365 days/year*

**Low Grade Wood Markets**





**DATABASE OF NH  
COMMERCIAL WOOD  
ENERGY SYSTEMS**

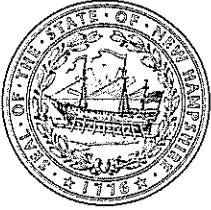
**Legend**

- Hospital
- School
- Business
- Non-Profit
- Government

- 1 All Saints Church
- 2 Androscoggin Hospital
- 3 Androscoggin Hospital
- 4 Belmont Elementary School
- 5 Belmont High School
- 6 Belmont Middle School
- 7 Berlin Housing Authority Welch Building
- 8 Bethlehem Elementary School
- 9 CAI Technologies
- 10 Canaan Elementary School
- 11 Canterbury Elementary School
- 12 Carroll County Nursing Home
- 13 Charlestown Elementary School
- 14 Claremont Fire Station
- 15 Claremont Middle School
- 16 Colony House B&B
- 17 Concord Steam Corp.
- 18 Concord Steam Corp.
- 19 Continental Biomass Industries Inc.
- 20 Continental Biomass Industries Inc.
- 21 Cornish Elementary School
- 22 Crotched Mountain Rehabilitation Center
- 23 Crotched Mountain Rehabilitation Center
- 24 Daniel Webster Place
- 25 Daniel Webster Place
- 26 Dartmouth College Sachem Village
- 27 DRED Warehouse, (Allenstown)
- 28 Dublin School
- 29 E-Waste Recyclers
- 30 Effingham Town Offices
- 31 EMD Millipore
- 32 EMD Millipore
- 33 Enfield Elementary School
- 34 Flying Goose Brew Pub
- 35 Franconia Public Library
- 36 Franklin Pierce University
- 37 GlenCliff Nursing Home
- 38 GlenCliff Nursing Home
- 39 Gorham Town Garage
- 40 Grafton County Complex
- 41 Grafton County Complex
- 42 Greenfield Elementary School
- 43 Greenville Elementary School/SAU
- 44 Hanover High School
- 45 Hanover High School
- 46 Harris Center
- 47 Historic Harrisville
- 48 Holderness School
- 49 Holderness School
- 50 Hollis Police Station
- 51 Hollis Town Hall
- 52 Hopkinton Fire Station
- 53 Hopkinton Highway Garage
- 54 Indian River Middle School
- 55 Jaffrey Wastewater Treatment Facility
- 56 Kappa Delta Sorority, Dartmouth College
- 57 Kearsarge Elementary School
- 58 Kearsarge Elementary School

- 59 Kearsarge Middle School
- 60 Kearsarge Middle School
- 61 Keene Courthouse
- 62 Keene Middle School
- 63 Keene Middle School
- 64 Keene Yoga Center
- 65 Kidsview Academy
- 66 Lafayette Elementary School
- 67 Lebanon Middle School
- 68 Littleton Fire Station
- 69 Littleton Regional Healthcare
- 70 Littleton Regional Healthcare
- 71 Lyme Elementary School
- 72 Lyme Town Garage
- 73 MacDowell Colony
- 74 Marlborough Elementary School
- 75 Mascenic Regional High School
- 76 Mascenic Regional Middle School (Boynton)
- 77 Mascoma Valley Regional High School
- 78 Mason Elementary School
- 79 MEDC Dunning Corp
- 80 Merrimack Valley School District
- 81 Merrimack Valley School District
- 82 New England College
- 83 New England Wood Pellet corporate office
- 84 New Hampshire Audubon
- 85 New Hampshire SPCA
- 86 Newton Greenhouse
- 87 Newton Greenhouse
- 88 NH Ball Bearing
- 89 Nubanusit Co Housing
- 90 P.J. Noyes
- 91 Pembroke Academy
- 92 Peterborough Community Center
- 93 Peterborough Police Department
- 94 Peterborough Town House
- 95 Peterborough Unitarian Church
- 96 Peterborough Waste Water Treatment Plant
- 97 Pleasant View Gardens Greenhouses
- 98 Pleasant View Gardens Greenhouses
- 99 Plymouth State University
- 100 Proctor Academy
- 101 Richmond Middle School
- 102 Rockingham County Complex
- 103 Sacred Heart Parish
- 104 Sanborn Mills Farm
- 105 SPNHF
- 106 St. Kieran Arts Center
- 107 State Office Park East (State of NH)
- 108 Strafford School
- 109 Sullivan County Complex
- 110 Tuftonboro Meeting Hall
- 111 Warwick Mills
- 112 Weeks Medical Center
- 113 Winnisquam Regional High School

Charles Levesque  
 President  
 Innovative Natural Resource Solutions, LLC (inrsllc.com)  
 37 Old Pound Road  
 Antrim, NH 03440 603-588-3272 levesque@inrsllc.com



STATE OF NEW HAMPSHIRE  
DEPARTMENT of RESOURCES and ECONOMIC DEVELOPMENT  
DIVISION OF FORESTS AND LANDS  
172 Pembroke Road, Concord, New Hampshire 03301

603-271-2214  
FAX: 603-271-6488  
www.nhdf.org

The Honorable Richard Barry, Chairperson  
New Hampshire House of Representatives  
Science, Technology and Energy Committee  
Legislative Office Building, Room 304  
Concord, NH 03302

April 11, 2017

**Re: SB 129-An act requiring a portion of the renewable energy fund to benefit low to moderate income residential customers, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund**

Dear Chairperson Barry and Members of the Committee,

Thank you for the opportunity to testify regarding SB 129. The Department of Resources and Economic Development, Division of Forests and Lands, would like to offer our support for the biomass provisions of this bill.

The Division of Forests and Lands is the state agency with primary statutory authority for the maintenance, protection and conservation of our forest resources, including the execution of "all matters pertaining to forestry, forest management, and forestlands." As such, we would like to stress the importance of maintaining our biomass markets, not only for the important economic role they play, but for the long-term health of the forest as well.

Biomass markets play a very important role in our state. In addition to being a renewable energy source, they make up a large percentage of the volume derived from typical timber harvesting operations. For the last year in which we have complete data, 2,931 timber sale operations resulted in over 1.3 million tons of biomass chips. Our forest products industry injects approximately \$1.4 billion into our state's economy each year (without multipliers). Maintaining strong markets for all forest products is key to supporting this sector of our economy. While high in volume, biomass constitutes the lowest value product because it is derived from essentially waste wood. It is therefore vital for good forest management and stewardship to remove this product when harvesting for higher value products such as sawlogs. Otherwise, over time we will see a general decline in the health, value and vigor of our forests, having long-term consequences that can't be quickly reversed.

New Hampshire is the second most forested state in the nation, with over 80% of our land mass covered with trees. Supporting biomass markets through state energy policy is an important step in maintaining long-term forest health and our forest products economy. Thank you for the opportunity to testify. If I can provide any additional information, please let me know.

Respectfully,

Brad W. Simpkins  
Director

cc: Jeffrey Rose, Commissioner, DRED





**Comments of Robert Berti, Rumney, NH**  
**NH Licensed Professional Forester #3**  
**NH Licensed Surveyor #103**  
**Selectman, Rumney, NH**

April 11, 2017

Rep. Richard Barry, Chairman  
N.H. House Science, Technology and Energy Committee  
Room 304, Legislative Office Building  
Concord, NH 03301

Representative Barry and members of the N.H. House Science, Technology and Energy Committee:

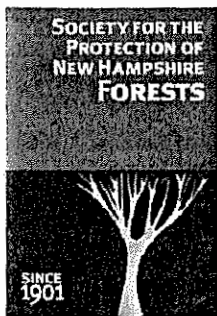
I strongly support Senate Bill 129. A portion of my reasons are as follows:

- Low-grade wood markets are essential for the proper management of a valuable New Hampshire resource—our forests. New Hampshire's biomass plants are the most important tool natural resource managers have to meet the challenges of timber production, wildlife habitat improvement, recreational use, and water quality for future generations.
- Biomass production is not only a benefit for the North Country. In fact, the impact is greater in southern New Hampshire when you compare biomass volumes in several counties.

<b>County</b>	<b>Tons Biomass Harvested</b>	<b>County</b>	<b>Tons Biomass Harvested</b>
Coos	151,345	Belknap	148,045
Grafton	199,985	Hillsborough	163,470
Carroll	102,415	Merrimack	261,910
<b>Total</b>	<b>453,745</b>	<b>Total</b>	<b>573,425</b>

Belknap County, a small county, harvested just 3,000 tons less than the state's largest county, Coos.

- Finally, when one studies the economic impact and benefits of biomass harvesting in New Hampshire, you will determine this bill is not a subsidy, but an incentive for New Hampshire citizens.



April 11, 2017

54 Portsmouth Street  
Concord, NH 03301

Tel. 603.224.9945  
Fax 603.228.0423

info@forestsociety.org  
www.forestsociety.org

The Honorable Richard Barry, Chairman  
House Science, Technology and Energy Committee  
Legislative Office Building, Room 304  
33 N State St  
Concord, NH 03301

Dear Chairman Barry and Members of the Committee:

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 these markets.

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, maintaining the markets for low-grade timber 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 legislation before you will help address that challenge.

In closing, we believe a policy which provides incentives for landowners to care for and maintain their lands will provide both an economic return and will help ensure the biological richness of the state. SB 129 leads us to that outcome. Its passage is a key step towards insuring our forests continue to play a central role in the overall quality of life which has made New Hampshire so unique. Thank you again for this opportunity and I will be happy to answer any questions you may have.

Sincerely,

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

**Thomson Family Tree Farm  
173 Strawberry Hill Road  
Orford, NH 03777**

April 11, 2017

Representative Richard Barry, Chairman  
N.H. House Science, Technology and Energy Committee  
Room 304 Legislative Office Building  
Concord, NH 03301

Dear Chairman Barry and Committee Members,

My name is Tom Thomson from Orford and I represent the Thomson Family Tree Farm and have owned forestland in NH for over 60 years.

I am writing in support of SB 129. As evidenced by the recent closing of the Alexandria Power plant, SB 129 is necessary for NH Independent Biomass Power Plants.

These plants are vital to every private, corporate, state and federal, forest landowner in the state of NH; without this important low-grade market (wood fuel chips) we would not be able to practice good sustainable forestry in NH. On a well-managed Tree Farm in NH, 60 to 65% of the total wood cut in a timber harvest is low-grade wood, without that market I believe our forests would be high-graded as they were back in the 1940's and 50's where they cut the best and left the rest.

Good forestry in NH is like the garden in your back yard; we must weed it and thin it if we are to be successful and forest landowners can only be successful if we have those important low-grade markets available and close by. A sustainable forest provides many benefits to our state and the general public such as clean air, clean water, enhanced wildlife habitat, creates recreational opportunities and the necessary wood fiber for our state. Remember our forest is a natural renewable resource, which grows right here in NH and when we harvest timber the dollars stay within our local communities and we become less dependent on the Middle East and keep more of our hard earned dollars at home.

Like many private forest landowners in NH I am willing to open and share our lands with both the state and the general public. We receive no income for doing so; the only income we receive is when we harvest timber and in doing so pay a NH timber tax which is 10% of the stumpage value; and those dollars go to the town where the timber was cut.

NH is the second most heavily forested state (84%) in the United States. At present we have better sustainable forestry being practiced in our state than ever before and it's because forest landowners have a good low-grade wood market like our Independent Biomass Power Plants. Please help us continue to practice good sustainable forestry in NH.

In the last report of the New England State Foresters Association, they reported a total of 7756 direct jobs related the NH Forest Industry and if you added the indirect related forestry jobs in the NH Forest Industry it grew to 12,818 jobs. They also reported a direct impact to our state's economy due to the NH Forestry Industry, which totals 1.4 Billion dollars.

I encourage this committee to pass SB 129. Thank you for your time and thank you for your willingness to serve the people of NH.

Sincerely yours,

Thomas Thomson  
Tree Farmer

# 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

*"Committed to the power of concentrated expertise widely shared."*

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

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."<sup>2</sup> 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.<sup>3</sup>

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)<sup>4</sup>

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

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<sup>1</sup> 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.

<sup>2</sup> *Report to Congress*, supra, at O-12.

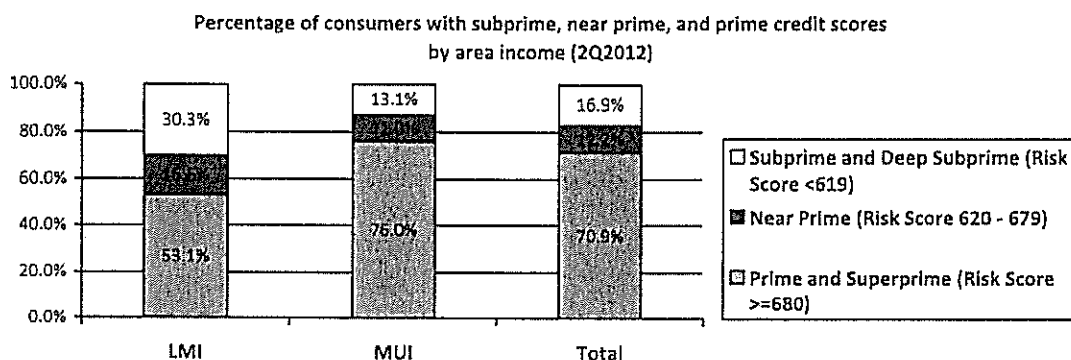
<sup>3</sup> In order to compare results between the three types of credit scoring, the Federal Reserve Board rank ordered scores from 1 – 100.

<sup>4</sup> *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.<sup>5</sup>

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.”<sup>6</sup> The FRB of Boston found that “in Massachusetts, as of 2Q2012,<sup>7</sup> 30.3 percent of individuals living in [low and moderate income, LMI] areas had subprime and deep subprime risk scores,<sup>8</sup> compared to 13.1 percent of those living in [moderate and upper income, MUI] census tracts.”<sup>9</sup>



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.

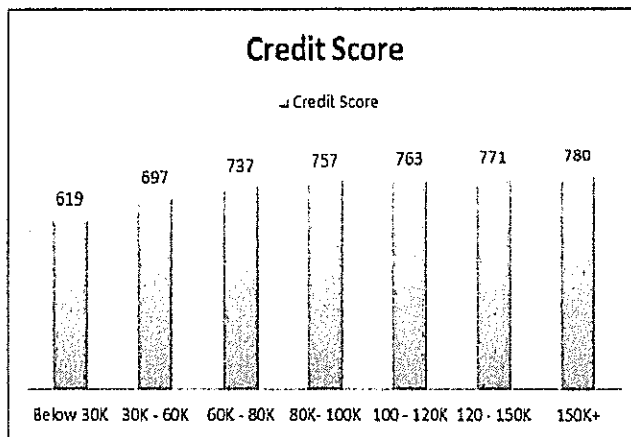
<sup>5</sup> Report to Congress, supra, at 82.

<sup>6</sup> 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).

<sup>7</sup> The second quarter of 2012.

<sup>8</sup> That is, scores below 680.

<sup>9</sup> *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.”<sup>10</sup> 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.<sup>11</sup>

<sup>10</sup> Experian reports what is known as the VantageScore.

<sup>11</sup> <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.”<sup>12</sup> The study reported that “In general, older individuals and those living in higher-income and nonminority neighborhoods had the lowest incidence of data problems.”<sup>13</sup>

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

<sup>12</sup> 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.”<sup>14</sup> 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.<sup>15</sup> 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.<sup>16</sup> 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.<sup>17</sup>

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<sup>13</sup> *Credit Report Accuracy*, supra, at 319.

<sup>14</sup> *Credit Report Accuracy*, supra, at 319 – 320.

<sup>15</sup> 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.

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

<sup>17</sup> 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.<sup>18</sup>

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."<sup>19</sup> 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).<sup>20</sup> 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.<sup>21</sup>

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

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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.

<sup>18</sup> 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.

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

<sup>20</sup> Id.

<sup>21</sup> Id., at 92.

<sup>22</sup> Id., at 37.

<sup>23</sup> Id., at 33.

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

<sup>25</sup> Id., at 39.

<sup>26</sup> Id., at 303.

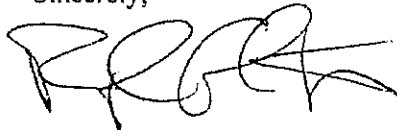
does not hesitate to mark up his goods by one, two, or even three numbers, each number, in this quaint jargon of the trade, representing a 100 percent increase of the whole sale price."<sup>27</sup>

*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

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<sup>27</sup> Id.

## Senate Bill 129 – The Clean Energy Jobs & Opportunities Act House STE, April 11, 2017

### General Overview – BIPARTISAN JOBS & ECONOMIC OPPORTUNITY LEGISLATION

- SB 129 is bipartisan legislation.
- SB 129 is focused on the jobs and economic impact of our renewable energy sector in NH – specifically the critically important biomass industry and the growing & popular solar industry.
- SB 129 received a 5-0 vote in the Senate Energy Committee and passed the Senate on a voice vote with no debate.
- As we look to the challenges of our every evolving energy market, we must employ an “ALL OF THE ABOVE” strategy for energy supply. We know that natural gas continues to dominate the marketplace and the over-reliance on natural gas in New England must be addressed according to the ISO-NE. While renewables are not poised to be the only answer to our energy issues, they play an important part in the diversification of the region’s energy supply. More importantly for New Hampshire, renewable energy is an important sector of our economy because by using local fuels like biomass they promote good jobs here in our own State.
- SB 129 is needed to promote and sustain our local renewable energy jobs and the related industries. For example, SB 129 makes a needed fix to the RPS law to protect and sustain the biomass industry and the related forest products industry it supports. We recently learned of one biomass plant’s temporary closure due to very low wholesale energy prices and very low REC market prices; this temporary closure highlights the need to pass SB 129 to assist in the retention of the biomass industry’s jobs.

### Here is a Review of Sections of SB 129

- Section 1      **All:** Establishes a Purpose Statement. In essence, this section points to the Legislature’s recognition of the role renewables play in our regional energy market, and more importantly, the jobs created here in New Hampshire.
- Section 2      **All:** Establishes the bill title as the “NH Clean Energy Jobs & Opportunity Act of 2017”

- Section 3      **Solar:** Requires 15% of the Renewable Energy Fund benefit low-moderate income residential customers. (including potential community solar projects in manufactured housing or multi-family rental housing).
- Section 4      **Solar:** Defines “low-moderate income community solar project” as a majority of residential end-user customers at or below 300% of the federal poverty guidelines.
- Section 5      **Biomass:** Clarifies eligibility in Class III (Existing Biomass/Methane) to be those existing methane producers currently eligible for Class 3 RECs in NH and less than 10 MWs in size. This size covers all existing class III NH methane facilities. Current law does not have a size limitation on methane as it does for biomass. With the increase in the ACP that is proposed in Section 9, this section’s limitation of the size of methane units is an important clarification in the law because generally speaking, unlike a class III biomass plant, a class III methane unit does not incur a significant fuel cost to operate. The size limit allows REC dollars to be available to those smaller class III methane units (and class III biomass units), but not to the larger units that may have a better cost of operation due to their economy of scale as a larger unit.
- Section 6      **Solar and Thermal Biomass:** Increases percentage of REC’s for Class II solar from .3% to .6% in 2018, .8% in 2019 and 1% in 2020. Reduces percentages for thermal biomass REC carve-out due to the loss of Concord Steam from 1.3% to .8 % and allowing increases in the amount of .2 % per year through 2023. \*\*Our understanding from testimony in the Senate is that this section related to thermal carveout is estimated to be an overall cost reduction of approximately \$4 million dollars over the next five years.
- Section 7      **Solar: (new Senate amendment)** Establishes a pilot project in each utility service territory for low to moderate income community solar projects. Limited to one project each year for 3 years through 2020. Reporting to PUC on costs and benefits of such projects. \*\*Originally, this was not a pilot program. After hearing concerns raised by the utilities in the Senate hearing, the Senate decided to scale back the section to establish pilot projects in each utility service area.
- Section 8      **Solar: (new Senate amendment)** Prohibits unfair and deceptive methods of competition or practices for projects involving net metering. \*\*The original language in the bill caused concern among the solar industry and was revised as a compromise to make clear that unfair and deceptive actions are not acceptable in net metering projects.
- Section 9      **Biomass:** Adjusts the ACP rate for Class III (biomass and methane) to \$55 in 2017, 2018, 2019. \*\* This is a needed fix to the RPS law in which the class rate

is set to revert to an approximate \$34 dollar ACP from the current \$45 ACP. The \$55 ACP is slightly below the NH RPS class I ACP and is the same as the Connecticut ACP. Over the past several years, NH biomass plants have been selling in the Connecticut RPS market. With Connecticut becoming more parochial and seeking to push NH biomass out their program, we need a NH REC market that will help the biomass plants. Historically low prices in the wholesale energy market, in combination with lower REC prices, have made it difficult for the plants to cover the cost of the wood fuel they purchase from NH's foresters, sawmills, and loggers. The plants are critical to our forest products industry.

Section 10     **Solar: (new Senate amendment)** Eliminates the 10kw total peak generation capacity requirement for Renewable Energy Fund incentive payments for certain projects of residential owners of small renewable energy facilities (Class I or Class II)

Section 11     **All:** Effective date – upon passage.

**Conclusion:**

- Recognize that this bill has an impact on electricity prices. The Senate heard from large industrial users concerned about the bill's costs. Note that the costs they provided were inaccurate because they are calculated assuming RECs are bought at the ACP. This is inaccurate, as RECs are bought at a market price below the ACP.
- To put SB 129's cost into context:
  - SB 129 represents modification to 3 segments of the RPS (Biomass, Solar, thermal). The total RPS--all 4 classes-- account for only 1.4% of the typical residential customer bill.
  - Overall estimate of SB 129 - \$24.7 million total cost over the 9 years of the program. On average, 2.7 million/yr. The Effect on the typical residential monthly bill – average is 16 cents. Typical large industrial monthly bill – average \$187.
  - Putting the cost of SB 129 in perspective: Eversource spent \$30 million in 2016 and plans to spend \$41 million in 2017 on its tree-trimming operation. Two years of tree-trimming is almost 3x greater than the cost of SB 129.
- Lowering energy costs requires looking at larger pieces of the energy pie: Transmission, distribution, the need for energy infrastructure. Another piece of legislation looking to address the bigger picture is headed to the House. (SB 128)

Class III REC requirement and the fact that the  
New Hampshire Class III ACP rate in 2015 was closer to that of other New England states, according to the  
2016 New Hampshire Renewable Energy Fund Annual Report.

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Rep. Richard Barry, Chairman  
NH House Science Technology and Energy Committee  
Room 304 Legislative Office Building  
Concord, NH, 03301

I appreciate the opportunity to come here today to speak in favor of HB 129 AS it pertains to job creation and job retention and the tremendous impact that the forestry Industry contributes to state's economy.

I am here today to represent Diprizio Pine Sales, Middleton Building Supply and Lavalley Building Supply. We're located in central NH in the town of Middleton . At this site we have a sawmill, planning mill, and small biomass facility that employs 55 people in the mills and 25 people in the retail store. We also own and operate 7 other retail stores located in Dover, Hampton, Meredith, Newport, W. Lebanon, Claremont, Walpole, and PBS (which is a prefab custom manufacturing facility) with a total employment of 400 people. Yearly payroll alone in just the Middleton facilities is 7.1 million dollars.

DiPrizio Pine Sales produces 18 to 20 million board feet of Eastern White Pine annually sold locally in our 8 retail stores, as well as nationally.

Diprizio Pines Sales operates a 600HP wood fired boiler and a 600KW Generator. We use 60% of our bi products (wood chips and sawdust) to power the boiler, and market the balance to other biomass power plants through-out the state. Over the past year, we have seen the closure or idling of several New England pulp and paper mills. These mills had been an important market for our mills chips and sawdust. At the few remaining pulp and paper mills in New England, the prices for pulp wood have decreased from (\$41/ton) 3 years ago down to \$11/ton (delivered) which is a tremendous loss to the mill. And, this is if we can get a sufficient quota at the mill to deliver our chips. Some sawmills are facing quotas so tight they are being forced to stock-pile excess chips and sawdust behind their mill. Loss of the state's biomass power plants will make this situation even worse and this impact will create a domino effect through-out the entire forest industry from land owner to loggers and trucker. Not having a place to market our chips will drastically result in no log, poor logs which results in poor lumber quality. The loss of this market will result in MAJOR job losses throughout the entire industry which in turn effects NEW Hampshire's economy.

Respectfully  
Marcella Perry  
Operations Manager, Special Projects

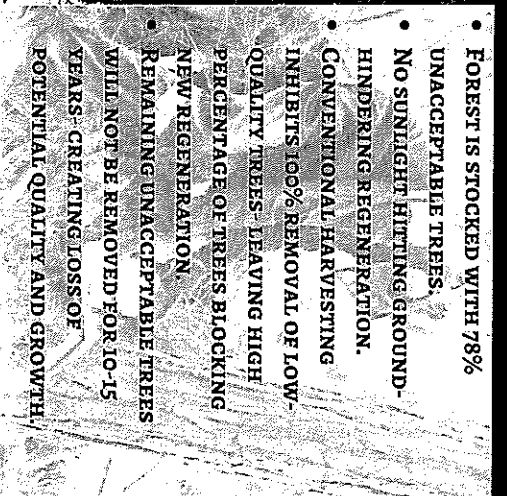


# MAXIMIZING GROWTH AND GENETIC POTENTIAL

## CONVENTIONAL VS. WHOLE TREE HARVESTING UTILIZING PULPWOOD/CHIPWOOD MARKETS



- WHOLE TREE HARVESTING - 100% UNACCEPTABLE TREES REMOVED, UTILIZED BY PULPWOOD/CHIPWOOD MARKETS.
- REGENERATION RECEIVES SUNLIGHT TO GROW STRAIGHT AND HEALTHY.
- BEST QUALITY TREES USED AS SEED SOURCES - REGENERATION IS LIKELY SAME SPECIES AND GENETIC MAKEUP OF PARENT TREES.
- WHOLE TREE HARVESTING ELIMINATES LOST GROWTH FACTOR - UTILIZES GENETIC IMPROVEMENT FACTOR.



- FOREST IS STOCKED WITH 78% UNACCEPTABLE TREES.
- NO SUNLIGHT HITTING GROUND - HINDERING REGENERATION.
- CONVENTIONAL HARVESTING INHIBITS 100% REMOVAL OF LOW-QUALITY TREES - LEAVING HIGH PERCENTAGE OF TREES BLOCKING NEW REGENERATION.
- REMAINING UNACCEPTABLE TREES WILL NOT BE REMOVED FOR 10-15 YEARS - CREATING LOSS OF POTENTIAL QUALITY AND GROWTH.

**BROADLEAF**  
Forest Management, LLC

**Dan Entley**  
Executive Vice President  
and Chief Forester

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# Amendments



Sen. Bradley, Dist 3  
 Sen. Feltes, Dist 15  
 Rep. Chandler, Carr. 1  
 Rep. Richardson, Coos 4  
 Rep. Vose, Rock. 9  
 Rep. Backus, Hills. 19  
 Rep. S. Harvey, Hills. 29  
 Rep. Oxenham, Sull. 1  
 Rep. Hinch, Hills. 21

May 16, 2017

2017-1788s

06/01

*OWN HOUSE #*

Amendment to SB 129

1 Amend the bill by replacing sections 6 and 7 with the following:

2

3 6 Electric Renewable Portfolio Standard; Minimum Electric Renewable Portfolio Standards.

4 Amend RSA 362-F:3 to read as follows:

5 362-F:3 Minimum Electric Renewable Portfolio Standards. For each year specified in the table  
 6 below, each provider of electricity shall obtain and retire certificates sufficient in number and class  
 7 type to meet or exceed the following percentages of total megawatt-hours of electricity supplied by  
 8 the provider to its end-use customers that year, except to the extent that the provider makes  
 9 payments to the renewable energy fund under RSA 362-F:10, II:

	2008	2009	2010	2011	2012	2013	2014	2015	2025 and thereafter
10 Class I	0.0%	0.5%	1%	2%	3%	3.8%	5%	6%	15% (*)
11 Class II	0.0%	0.0%	0.04%	0.08%	0.15%	0.2%	0.3%	0.3%	<del>[0.3%]</del> 0.7%
12 Class III	3.5%	4.5%	5.5%	6.5%	1.4%	1.5%	3.0%	8.0%	8.0%
13 Class IV	0.5%	1%	1%	1%	1%	1.3%	1.4%	1.5%	1.5%

14  
 15 \*Class I increases an additional 0.9 percent per year from 2015 through 2025. A set percentage  
 16 of the class I totals shall be satisfied annually by the acquisition of renewable energy certificates  
 17 from qualifying renewable energy technologies producing useful thermal energy as defined in  
 18 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  
 19 percent in 2016, and increased annually by ~~[0.1]~~ 0.2 percent per year from 2017 through 2023, after  
 20 which it shall remain unchanged. ***Class II shall increase to 0.5 percent beginning in 2018, 0.6***  
 21 ***percent beginning in 2019, and 0.7 percent beginning in 2020, otherwise*** classes II-IV shall  
 22 remain at the same percentages from 2015 through 2025 except as provided in RSA 362-F:4, V-VI.

23 7 Limited Electrical Energy Producers Act; Net Energy Metering. Amend RSA 362-A:9, XIV(c)  
 24 to read as follows:

25 (c) Notwithstanding paragraph V, a group host shall be paid for its surplus generation  
 26 at the end of each billing cycle at rates consistent with the credit the group host receives relative to  
 27 its own net metering under either subparagraph IV(a) or (b) or alternative tariffs that may be



Amendment to SB 129

- Page 2 -

1 applicable pursuant to paragraph XVI. *Each group member of a group host for a low-*  
2 *moderate income community solar project, as defined in RSA 362-F:2, X-a, may receive*  
3 *credits on the customer electric bill for each member and the host, provided that there*  
4 *shall be only one new project under this paragraph in each utility's service territory by*  
5 *December 31, 2019 with such projects available on a first-come, first serve basis. The*  
6 *commission shall report on the costs and benefits of such projects on or before December*  
7 *31, 2019.* On an annual basis, the electric distribution utility shall calculate a payment adjustment  
8 if the host's surplus generation for which it was paid is greater than the group's total electricity  
9 usage during the same time period. The adjustment shall be such that the resulting compensation  
10 to the host for the amount that exceeded the group's total usage shall be at the utility's avoided cost  
11 or its default service rate in accordance with subparagraph V(b) or paragraph VI or alternative  
12 tariffs that may be applicable pursuant to paragraph XVI. The utility shall pay or bill the host  
13 accordingly.

14  
15 Amend the bill by inserting after section 10 the following and renumbering the original section 11 to  
16 read as 12.

17 11 New Section; Electric Renewable Portfolio Standard; Exemption Period for Certain  
18 Electrical Supply Contracts. Amend RSA 362-F by inserting after section 14 the following new  
19 section:

20 362-F:15 Exemption Period for Certain Electrical Supply Contracts.

21 I. The increases in the annual purchase percentages in RSA 362-F:3 applicable to class II  
22 for 2018 and thereafter as compared to the class II annual purchase percentages in effect as of  
23 January 1, 2017, shall not apply to the megawatts-hours delivered during the contract term under  
24 any electrical power supply contract entered into before the effective date of this section, provided  
25 that the contract term in effect before such effective date has not been extended or otherwise  
26 increased after that date.

27 II. The change in the class III methane gas eligibility requirements in RSA 362-F:4, III(b)  
28 as compared to the class III methane gas eligibility requirements in effect as of January 1, 2017  
29 shall not apply to class III methane gas certificates:

30 (a) Acquired pursuant to a contract entered into before the effective date of this section  
31 for the contract term, provided that the contract term in effect before such effective date has not  
32 been extended or otherwise increased after that date; or

33 (b) That are 2017 calendar year certificates issued before the first day of the first month  
34 of the calendar quarter following such effective date.

35 III. Providers shall inform the commission by July 1 of each year, through July 1, 2020, of  
36 all such exempted contracts, including but not limited to, the execution date and expiration date of



**Amendment to SB 129**

**- Page 3 -**

1 the contract, the basis for exemption under this section, and if applicable, the annual megawatt-  
2 hours supplied and exempted, or the annual amount of exempted methane gas certificates and the  
3 basis for exemption. All such information filed with the commission shall be exempt from the  
4 provisions of RSA 91-A:5, IV.



2017-1788s

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.

V. Provides a period of exemption from increases in annual purchase percentages under the minimum electric renewable portfolio standard for certain electrical supply contracts.



Amendment to SB 129

*NOT ADOPTED*

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 an exemption for certain electrical supply  
6 contracts.  
7

8 Amend the bill by replacing all after the enacting clause with the following:

9

10 1 Purpose. The general court finds it is in the public interest to promote local renewable  
11 energy resources and New Hampshire jobs in the solar and wood products industries, by promoting  
12 the stabilization and lowering of future energy costs with more clean energy supply and greater  
13 energy diversification, and by further reducing energy costs by reducing New Hampshire's peak  
14 demand, including our share of regional electric transmission costs, which recently went up due to  
15 our increased share of the regional peak demand.

16 2 Title. The title of this act is the New Hampshire Clean Energy Jobs and Opportunity Act of  
17 2017.

18 3 Electric Renewable Portfolio Standard; Renewable Energy Fund. Amend RSA 362-F:10, X to  
19 read as follows:

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

32 4 New Paragraph; Electric Renewable Portfolio Standard; Definitions; Low-Moderate Income  
33 Community Solar Project. Amend RSA 362-F:2 by inserting after paragraph X the following new



1 paragraph:

2 X-a. "Low-moderate income community solar project" means ground-mounted or rooftop  
 3 solar arrays that directly benefit a group of at least 5 residential end-user customers, where at least  
 4 a majority of the residential end-user customers are at or below 300% of the federal poverty  
 5 guidelines.

6 5 Electric Renewable Portfolio Standard; Electric Renewable Energy Classes. Amend RSA 362-  
 7 F:4, III to read as follows:

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

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

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

20 6 Electric Renewable Portfolio Standard; Minimum Electric Renewable Portfolio Standards.  
 21 Amend RSA 362-F:3 to read as follows:

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

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

31 \*Class I increases an additional 0.9 percent per year from 2015 through 2025. A set percentage  
 32 of the class I totals shall be satisfied annually by the acquisition of renewable energy certificates  
 33 from qualifying renewable energy technologies producing useful thermal energy as defined in  
 34 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  
 35 percent in 2016, and increased annually by ~~0-1~~ 0.2 percent per year from 2017 through 2023, after  
 36 which it shall remain unchanged. Classes II-IV **shall** remain at the same percentages from 2015  
 37





1 through 2025 except as provided in RSA 362-F:4, V-VI.

2 7 New Paragraph; Limited Electrical Producers Act; Net Metering. Amend RSA 362-A:9 by  
3 inserting after paragraph XVIII the following new paragraph:

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

7 8 Renewable Energy Fund; Rates. Amend RSA 362-F:10, III to read as follows:

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

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

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

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

20 9 New Section; Exemption Period for Certain Electrical Supply Contracts. Amend RSA 362-F  
21 by inserting after section 14 the following new section:

22 362-F:15 Exemption Period for Certain Electrical Supply Contracts.

23 I. The change in the class III methane gas eligibility requirements in RSA 362-F:4, III(b) as  
24 compared to the class III methane gas eligibility requirements in effect as of January 1, 2017 shall  
25 not apply to class III methane gas certificates acquired pursuant to a contract entered into before  
26 March 17, 2017 for the contract term, provided that the contract term in effect before March 17,  
27 2017 has not been extended or otherwise increased after that date.

28 II. Providers shall inform the commission by July 1 of each year, through July 1, 2020, of  
29 all such exempted contracts, including but not limited to, the execution date and expiration date of  
30 the contract, the basis for exemption under this section, and if applicable, the annual megawatt-  
31 hours supplied and exempted. All such information filed with the commission shall be exempt from  
32 the provisions of RSA 91-A, pursuant to RSA 91-A:5, IV.

33 10 Effective Date. This act shall take effect upon its passage.



2017-1686h

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. Provides an exemption from increases in annual purchase percentages under the minimum electric renewable portfolio standards for certain electrical supply contracts.

# Bill as Introduced

SB 129 - AS AMENDED BY THE SENATE

03/16/2017 0770s

03/16/2017 0853s

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, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.

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

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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.

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

SB 129 - AS AMENDED BY THE SENATE

03/16/2017 0770s  
03/16/2017 0853s

17-0956  
06/05

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, relative to electric renewable energy classes, relative to the class rate for biomass, and relative to requirements for incentive payments from the renewable energy fund.

*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%	<del>[0.3%]</del> 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

SB 129 - AS AMENDED BY THE SENATE

- Page 3 -

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, limited to one new*  
7 *project per calendar year for 3 years in each utility's service territory through 2020. Each*  
8 *utility shall provide a report to the commission on the costs and benefits of such projects*  
9 *on or before December 31, 2020.* On an annual basis, the electric distribution utility shall  
10 calculate a payment adjustment if the host's surplus generation for which it was paid is greater  
11 than the group's total electricity usage during the same time period. The adjustment shall be such  
12 that the resulting compensation to the host for the amount that exceeded the group's total usage  
13 shall be at the utility's avoided cost or its default service rate in accordance with subparagraph V(b)  
14 or paragraph VI or alternative tariffs that may be applicable pursuant to paragraph XVI. The  
15 utility shall pay or bill the host accordingly.

16 8 New Paragraph; Limited Electrical Producers Act; Net Metering. Amend RSA 362-A:9 by  
17 inserting after paragraph XVIII the following new paragraph:

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

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

35 V. The public utilities commission shall make and administer a one-time incentive payment  
36 of \$3 per watt of nominal generation capacity up to a maximum payment of \$6,000, or 50 percent of  
37 system costs, whichever is less, per facility to any residential owner of a small renewable generation  
38 facility, that would qualify as a Class I or Class II source of electricity, [~~has a total peak generation~~

**SB 129 - AS AMENDED BY THE SENATE**

**- Page 4 -**

1 ~~capacity of 10 kilowatts or fewer,]~~ begins operation on or after July 1, 2008, and is located on or at  
2 the owner's residence.

3 11 Effective Date. This act shall take effect upon its passage.