

Committee Report

REGULAR CALENDAR

March 5, 2020

HOUSE OF REPRESENTATIVES

REPORT OF COMMITTEE

The Majority of the Committee on Science, Technology and Energy to which was referred HB 1478,

AN ACT repealing the law on preservation and use of renewable generation to provide fuel diversity. Having considered the same, report the same with the following resolution: RESOLVED, that it is INEXPEDIENT TO LEGISLATE.

Rep. Howard Moffett

FOR THE MAJORITY OF THE COMMITTEE

**MAJORITY
COMMITTEE REPORT**

Committee:	Science, Technology and Energy
Bill Number:	HB 1478
Title:	repealing the law on preservation and use of renewable generation to provide fuel diversity.
Date:	March 5, 2020
Consent Calendar:	REGULAR
Recommendation:	INEXPEDIENT TO LEGISLATE

STATEMENT OF INTENT

The committee majority felt that this bill was inadvisable because, first, it will expire by its own terms in 2021, and second, regardless of any Federal Energy Regulatory Commission ruling that a particular application of the statute (RSA 362-H) may be pre-empted by federal law, the statute is an important expression of state policy to encourage the preservation and use of renewable energy, including energy from biomass sources.

Vote 10-8.

Rep. Howard Moffett
FOR THE MAJORITY

Original: House Clerk
Cc: Committee Bill File

REGULAR CALENDAR

Science, Technology and Energy

HB 1478, repealing the law on preservation and use of renewable generation to provide fuel diversity. **MAJORITY: INEXPEDIENT TO LEGISLATE. MINORITY: OUGHT TO PASS.**

Rep. Howard Moffett for the **Majority** of Science, Technology and Energy. The committee majority felt that this bill was inadvisable because, first, it will expire by its own terms in 2021, and second, regardless of any Federal Energy Regulatory Commission ruling that a particular application of the statute (RSA 362-H) may be pre-empted by federal law, the statute is an important expression of state policy to encourage the preservation and use of renewable energy, including energy from biomass sources. **Vote 10-8.**

Majority Reports for HB 1225 and HB 1478:

HB 1225, allowing increased energy metering limits for municipal hydroelectric facilities. **MAJORITY: REFER FOR INTERIM STUDY. MINORITY: OUGHT TO PASS.**

Rep. Howard Moffett for the **Majority** of Science, Technology & Energy. Although well-intentioned, this bill—which would apply only to a single municipality in New Hampshire—is unnecessary because more comprehensive legislation which has passed the House and been referred to a second committee would accomplish the same result for a much broader group of municipalities and private businesses as well. **VOTE 11-9.**

HB 1478, repealing the law on preservation and use of renewable generation to provide fuel diversity. **MAJORITY: INEXPEDIENT TO LEGISLATE. MINORITY: OUGHT TO PASS.**

Rep. Howard Moffett for the **Majority** of Science, Technology & Energy. The committee majority felt this bill was inadvisable because, first, it will expire by its own terms in 2021, and second, regardless of any FERC ruling that a particular application of the statute (RSA 362-H) may be pre-empted by federal law, the statute is an important expression of state policy to encourage the preservation and use of renewable energy, including energy from biomass sources. **VOTE 10-8.**

March 5, 2020

HOUSE OF REPRESENTATIVES

REPORT OF COMMITTEE

The Minority of the Committee on Science, Technology and Energy to which was referred HB 1478,

AN ACT repealing the law on preservation and use of renewable generation to provide fuel diversity. Having considered the same, and being unable to agree with the Majority, report with the recommendation that the bill OUGHT TO PASS.

Rep. Michael Harrington

FOR THE MINORITY OF THE COMMITTEE

**MINORITY
COMMITTEE REPORT**

Committee:	Science, Technology and Energy
Bill Number:	HB 1478
Title:	repealing the law on preservation and use of renewable generation to provide fuel diversity.
Date:	March 5, 2020
Consent Calendar:	REGULAR
Recommendation:	OUGHT TO PASS

STATEMENT OF INTENT

This bill removes from statute RSA 362-H that was found to be in conflict with the Federal Power Act by the Federal Energy Regulatory Commission.

Rep. Michael Harrington
FOR THE MINORITY

Original: House Clerk
Cc: Committee Bill File

REGULAR CALENDAR

Science, Technology and Energy

HB 1478, repealing the law on preservation and use of renewable generation to provide fuel diversity. **OUGHT TO PASS.**

Rep. Michael Harrington for the **Minority** of Science, Technology and Energy. This bill removes from statute RSA 362-H that was found to be in conflict with the Federal Power Act by the Federal Energy Regulatory Commission.

Original: House Clerk

Cc: Committee Bill File

Carrie Morris

From: Robert Backus <robertbackus05@comcast.net>
Sent: Wednesday, March 04, 2020 9:15 AM
To: Carrie Morris
Cc: Joel Anderson
Subject: FW: Reports

This are OK by me

Sent from Mail for Windows 10

From: Mike Harrington
Sent: Wednesday, March 4, 2020 8:17 AM
To: 'Backus, Bob'
Cc: 'Joel Anderson'
Subject: Reports

minority

~~HB-1541 This bill adds electric storage facilities to the definition of an energy facility. This would allow proposed facilities of this type to come under the jurisdiction of the Site Evaluation Committee (SEC) if they have a peak storage capacity of 30 MW-hrs or greater. It would also allow municipalities where smaller storage facilities are proposed, to petition SEC to take jurisdiction in case where they feel they do not have adequate resources to evaluate the proposed facility.~~

HB-1478 This bill removes from statute the section of RSA362-H that was found to be in conflict with the Federal Power Act by the Federal Energy Regulatory Commission

~~HB-1366 This bill would require the PUC to use a capacity factor for class II resources equal to that in the annual PV Energy Forecast developed by ISO-NE. This is a more accurate figure than is presently used~~

~~HB-1229 – This bill singles out natural gas(NG) facilities for additional decommissioning requirements that do not apply to any other energy facilities. This sends a strong message that NH does not want to expand its use of NG. Expanding the use of NG for heating would mainly replace heating oil. This would reduce air pollution emissions including CO2 and mercury. In addition to this the bill is just not needed. The Administrator of the Site Evaluation Committee (This committee has jurisdiction energy projects of all types) stated it is redundant and not needed. According to her testimony under existing law the SEC cannot issue a certificate to any energy facility projects that lacks plans for a fully funded decommissioning plan. This bill is a solution in search of a problem~~

Voting Sheets

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

EXECUTIVE SESSION on HB 1478

BILL TITLE: repealing the law on preservation and use of renewable generation to provide fuel diversity.

DATE: March 3, 2020

LOB ROOM: 304

MOTIONS: INEXPEDIENT TO LEGISLATE

Moved by Rep. Moffett

Seconded by Rep. Somssich

Vote: 10-8

CONSENT CALENDAR: NO

Statement of Intent: Refer to Committee Report

Respectfully submitted,

Rep Lee Oxenham, Clerk

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

EXECUTIVE SESSION on HB 1478

BILL TITLE: repealing the law on preservation and use of renewable generation to provide fuel diversity.

DATE: 3/3/2020

LOB ROOM: 304

MOTION: (Please check one box)

- Options: OTP, ITL, Retain (1st year), Adoption of Amendment #, Interim Study (2nd year)

Moved by Rep. Moffatt Seconded by Rep. Somssich Vote: 10-8-2

MOTION: (Please check one box)

- Options: OTP, OTP/A, ITL, Retain (1st year), Adoption of Amendment #, Interim Study (2nd year)

Moved by Rep. Seconded by Rep. Vote:

MOTION: (Please check one box)

- Options: OTP, OTP/A, ITL, Retain (1st year), Adoption of Amendment #, Interim Study (2nd year)

Moved by Rep. Seconded by Rep. Vote:

MOTION: (Please check one box)

- Options: OTP, OTP/A, ITL, Retain (1st year), Adoption of Amendment #, Interim Study (2nd year)

Moved by Rep. Seconded by Rep. Vote:

Moffatt - Maj. Rep. Harrington- CONSENT CALENDAR: YES NO

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

Respectfully submitted: Rep Lee Oxenham, Clerk



2020 SESSION

Science, Technology and Energy

Bill #: 1478 Motion: ITL AM #: _____ Exec Session Date: 3/3/2020

<u>Members</u>	<u>YEAS</u>	<u>Nays</u>	<u>NV</u>
Backus, Robert A. Chairman	X		
Moffett, Howard M. Vice Chairman	X		
Cali-Pitts, Jacqueline A.			X
Mann, John E.	X		
Oxenham, Lee Walker Clerk	X		
Somssich, Peter F.	X		
Vincent, Kenneth S.			X
Balch, Chris	X		
McGhee, Kat	X		
McWilliams, Rebecca J.	X		
Saunderson, George L.	X		
Wells, Kenneth D.	X		
Harrington, Michael D.		X	
Notter, Jeanine M.		X	
Vose, Michael		X	
Aldrich, Glen C. <i>Flanagan</i>		X	
Thomas, Douglas W.		X	
Merner, Troy E.		X	
Ober, Russell T.		X	
Plett, Fred R.		X	
TOTAL VOTE:	10	8	2

Hearing Minutes

Rep. McGhee: The state law supports fuel diversity, which has some value. Do you feel it has value?

Rep. Harrington: I think the intent was to subsidize biomass above the RPS, and then this was used to justify it. If you remember what Mr Kreis said this morning, it was a unanimous decision by FERC.

Rep. McGhee: We heard follow up testimony by Ms. Grimblas, that these were credits, not a subsidy.

Answer: Getting 60MW out of the state's 32,000MW is not about keeping the lights running. It's a small amount of power.

Rep. Thomas: If this were repealed, does it degrade biomass as a diverse fuel?

Rep. Harrington: It only does one thing. It does not change the Class III for biomass in the RPS. We could just vote to give them \$10M (I wouldn't support that) but we don't pick winners and losers. They have \$2B in subsidies.

Rep. Thomas: So it doesn't change the RPS?

Rep. Harrington: It doesn't change it one way or the other.

Mike O'Leary of Bridgewater Power opposes this bill.

There are a significant number of jobs, sustainable forestry, and it provides a market for low grade wood.

The law expires in 2021, which is shorter than the appeal process.

I take offense to the comment "\$2B over 30 years." That's simply not true.

There are "State approved rate orders" where the utilities set their avoided cost. If the biomass generators can beat that price, they get a contract.

A copy of RSA 362-H was placed in the file.

Robt Olson, operator, testified against this bill. He was in the 3 year program.

John Tuthill resubmitted the same written testimony for this bill as well.

Comment by Rep. Vose: RSA 362-H:2 i(a) puts the 3 year limit in.

The blue sheet had 0 pro and 1 con.

Respectfully submitted,

Rep Kenneth Wells

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

PUBLIC HEARING ON HB 1478

BILL TITLE: repealing the law on preservation and use of renewable generation to provide fuel diversity.

DATE:

ROOM: 304

Time Public Hearing Called to Order: 1:00

Time Adjourned: 1:25

(please circle if present)

Committee Members: Reps. Backus, Moffett, Oxenham, Cali-Pitts, Mann, Somssich, Vincent, Balch, McGhee, McWilliams, Saunderson, Wells, Harrington, Notter, Vose, Aldrich, D. Thomas, Merner, R. Ober and Plett

Bill Sponsors:
Rep. Harrington

TESTIMONY

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

Rep Harrington
Mike Olesny
* John Fetter Tutbill

Carrie Morris

From: Ken Wells
Sent: Friday, February 07, 2020 1:25 PM
To: Carrie Morris
Cc: Bob Backus
Subject: February 4, 2020 Notes on the public hearing for HB 1475 - repeals the use of renewable energy fr providing renewable energy

February 4, 2020

Notes on the public hearing for HB 1475 - repeals the use of renewable energy fr providing renewable energy

Ken Wells, clerk

Representative Michael Harrington - primary sponsor

"It takes off the books a law that has been declared illegal. That law is just biomass, essentially the same as HB365"

Chairman Backus: Are you opposed to fuel diversity?

Rep. Harrington: it's on the books as a law that won't be enforced due to the FERC ruling.

Rep. Mann: Is there no way to fix it?

Rep. Harrington: I'm sure there is a way for it not to be in violation of the Federal Power Act, but that's not my purpose

Rep Cali-Pitts: I don't believe an agency can declare something "unconstitutional".

Rep Harrington replied: FERC made a ruling unanimously against it, so it can't be enforced. The next court would be the DC Court of Appeals, but that hasn't happened yet.

Rep. Thomas: Are you aware of any other law that is unconstitutional?

Answer: I don't know.

Rep. Vose: A semantic point - I read the order and it says NH law is "preempted" by the Federal Power Act. It's not constitutionality, it's the first law to be obeyed.

Answer: I don't believe that the Federal law has superiority over the state law. Anyway, HB1478 repeals state law RSA 362-H

Chairman Backus: This ruling was subject to appeal, but none was taken. In theory the court could find & it be overturned

Rep. Harrington: The Companies were desperate that they didn't appeal.

Chairman Backus: They might have decided that another course might be faster. There are other reasons not to pursue the appeal.

Rep. McGhee: The state law supports fuel diversity, which has some value. Do you feel it has value?

Rep. Harrington: I think the intent was to subsidize biomass above the RPS, and then this was used to justify it. If you remember what Mr Kreis said this morning, it was a unanimous decision by FERC.

Rep. McGhee: We heard follow up testimony by Ms. Grimblas, that these were credits, not a subsidy

Answer: Getting 60MW out of the state's 32,000MW is not about keeping the lights running. It's a small amount of power

Rep. Thomas: If this were repealed, does it degrade biomass as a diverse fuel?

Rep. Harrington: It only does one thing. It does not change the Class III for biomass in the RPS. We could just vote to give them \$10M (I wouldn't support that) but we don't pick winners and losers. They have \$2B in subsidies.

Rep. Thomas: So it doesn't change the RPS?

Rep. Harrington: It doesn't change it one way or the other.

Mike O'Leary of Bridgewater Power opposes this bill.

There are a significant number of jobs, sustainable forestry, and it provides a market for low grade wood.

The law expires in 2021, which is shorter than the appeal process.

I take offense to the comment "\$2B over 30 years." That's simply not true.

There are "State approved rate orders" where the utilities set their avoided cost. If the biomass generators can beat that price, they get a contract.

A copy of RSA 362-H was placed in the file.

Robt Olson, operator, testified against this bill. He was in the 3 year program.

John Tuthill resubmitted the same written testimony for this bill as well.

Comment by Rep. Vose: RSA 362-H:2 i(a) puts the 3 year limit in.

The blue sheet had 0 pro and 1 con.

Testimony

TITLE XXXIV PUBLIC UTILITIES

*For Use With
HBs 1370 + 1478*

CHAPTER 362-H THE PRESERVATION AND USE OF RENEWABLE GENERATION TO PROVIDE FUEL DIVERSITY

Section 362-H:1

362-H:1 Definitions. –

In this chapter:

- I. "Adjusted energy rate" means 80 percent of the rate, expressed in dollars per megawatt-hour, resulting from the default energy rate minus, if applicable, the rate component for compliance with the renewable energy portfolio standards law, RSA 362-F, if that rate component is included in the approved default energy rate.
- II. "Biomass" means plant-derived fuel including clean and untreated wood such as brush stumps, lumber ends and trimmings, wood pallets, bark, wood chips or pellets, shavings, sawdust and slash, agricultural crops, biogas, or liquid biofuels, but shall exclude any materials derived in whole or in part from construction and demolition debris.
- III. "Commission" means the public utilities commission.
- IV. "Default energy rate" means the default service energy rate applicable to residential class customers, expressed in dollars per megawatt-hour, as approved by the commission from time to time, and which is available to retail electric customers who are otherwise without an electricity supplier.
- V. (a) "Eligible facility" means any facility which produces electricity for sale by the use, as a primary energy source, of biomass, or municipal solid waste; provided that: (1) the facility's power production capacity is not greater than 25 megawatts excluding station service needs; (2) the facility is interconnected with an electric distribution or transmission system located in New Hampshire; and (3) the facility began operation prior to January 1, 2006, or if the facility ceased operation and then later returned to service after that date then prior to January 1, 2006 the facility operated for at least 5 years regardless of the current operational status of the facility. (b) "Eligible facility" shall not include: (1) any 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; and, (2) any municipal solid waste facility less than 10 megawatts in size and which was not in operation on January 1, 2018.
- VI. "Primary energy source" means a fuel or fuels, or energy resource either singly or in combination, that comprises at least 90 percent of the total energy input into a generating unit. A fuel or energy source other than the primary fuel or energy source may be used only for start-up, maintenance, or other required internal needs of the facility.

Source. 2018, 379:2, eff. Sept. 13, 2018.

Section 362-H:2

362-H:2 Purchased Power Agreements. –

To retain and provide for generator fuel diversity, each electric distribution company that is subject to the commission's approval regarding procurement of default service shall offer to purchase the net energy output of any eligible facility located in its service territory in accordance with the following:

- I. (a) Prior to each of its next 6 sequential solicitations of its default service supply after the effective date of this chapter, each such electric distribution company shall solicit proposals, in one solicitation or multiple solicitations, from eligible facilities. The electric distribution company's solicitation to eligible facilities shall inform eligible facilities of the opportunity to submit a proposal to enter into a power purchase agreement with the electric distribution company under which the electric distribution company would purchase an amount of

energy from the eligible facility for a period that is coterminous with the time period used in the default service supply solicitation. The solicitation shall provide that the electric distribution company's purchases of energy from the eligible facility shall be priced at the adjusted energy rate derived from the default service rates approved by the commission in each applicable default service supply solicitation and resulting rates proceeding.

(b) The solicitation shall also inform the eligible facility that: (1) the electric distribution company's purchase from the eligible facility shall be at the eligible facility's interconnection point with the electric distribution company; (2) the purchase shall be from the eligible facility's net electrical output and not from the output of another unit; and (3) the electric distribution company's purchase would be for 100 percent of the eligible facility's net electrical output.

II. Each eligible facility's proposal in response to such solicitation shall provide a nonbinding proposed schedule of hourly net output amounts during the term stated over a mutually agreeable period, whether daily, monthly, or over the term used in the default service supply solicitation for the applicable default energy rate and such other information as needed for the eligible facility to submit and the electric distribution company to evaluate the proposal.

III. With each eligible facility solicitation, the electric distribution company shall select all proposals from eligible facilities that conform to the requirements of this section. The electric distribution company shall submit all eligible facility agreements to the commission as part of its submission for periodic approval of its residential electric customer default service supply solicitation.

IV. All such eligible facility agreements shall be subject to review by the commission for conformity with this chapter in the same proceeding in which it undertakes the review of the electric distribution company's periodic default service solicitation and resulting rates.

V. The electric distribution company shall recover the difference between its energy purchase costs and the market energy clearing price through a nonbypassable delivery services charge applicable to all customers in the utility's service territory. The nonbypassable charge may include recovery of reasonable costs incurred by electric distribution companies pursuant to this section. The recovery of the nonbypassable charge shall be allocated among Eversource's customer classes using the allocation percentages approved by the commission in its docket DE 14-238 order 25,920 approving the 2015 Public Service Company of New Hampshire Restructuring and Rate Stabilization Agreement. In the first filing proceeding at the commission under this chapter applicable to each other electric distribution company, the commission shall determine and apply an allocation based on the foregoing allocations for any other electric distribution company subject to this chapter, but reasonably adjusted to account for differing customer classes if any from those of Eversource.

Source. 2018, 379:2, eff. Sept. 13, 2018.

Tuffe

Testimony of John Tuthill and Katie Lajoie, before the NH House Science, Technology & Energy Committee

Re: HB1370 Relative to base load renewable generation energy credits for biomass energy facilities, requiring electric distribution companies to purchase baseload renewable generation credits from eligible biomass facilities

HB1478 Repealing the law requiring electric distribution companies to purchase the net energy out-put of any eligible biomass or municipal waste facility

February 4, 2020

Dear Chairman Backus and members of the Committee,

We come before the Committee in opposition to HB1370 and in support of HB1478. We are affiliated with a citizens' group in Sullivan County known as Working on Waste. We have long opposed incineration.

In 2016 we were alarmed when legislation was passed creating an exemption to NH's ban on the combustion of processed construction and demolition debris. In NH waste-derived biomass fuels destined for incineration or used in the manufacture of bio-oil and synthetic gas are permitted a maximum contamination level of 250mg/kg for lead, 50mg/kg for arsenic and 10% fines, by weight. NH DES justified new heavy metal standards for waste-derived fuels as being comparable to green wood harvested in the region.

In 2018 legislation was introduced which created new and substantial subsidies for eligible combustion facilities, including biomass and solid waste incinerators (SB365). Although enacted, subsequent to a veto override, regulatory hurdles prevented implementation of these subsidies. Costs would have been borne unequally by certain classes of ratepayers.

In 2019 the legislature passed HB183, a microgrid study bill amended to create significant revenue streams for the biomass industry through renewable generation credits. The costs would again be borne by ratepayers. We were pleased that a Senate amendment excluded NH's last large waste incinerator from the combustors eligible for subsidies, but by 2019 it was clear to us that

burning biomass was contributing significantly to air pollution, including atmospheric carbon emissions in New Hampshire.

The NH Office of Strategic Initiative (OSI) released a report on Class III biomass electrical generation in 2018. The industry reported to the OSI that NH's Class III biomass combustors consumed over 1.3 million tons of wood in 2017, significantly more than the roughly 200,000 tons of solid waste burned in the state. There are six biomass incinerators in pursuit of subsidies under HB 1370, and data from the EPA's 2014 National Emissions Inventory show they released significant quantities of lead into the atmosphere, in amounts ranging from 86lbs at the Springfield facility to 141lbs in Tamworth. 2014 EPA data indicate that more than half of the airborne mercury emissions from industrial sources in NH were emitted by these biomass combustors. Carbon is not the only thing NH's forested woodlands sequester. They provide an undervalued ecological service, diminished by the industrial scale use of wood as fuel.

With more awareness about the impact of atmospheric carbon emissions, it is becoming increasingly difficult to justify subsidizing polluting smokestack industries consuming carbon-based fuel, fossil or otherwise. We were concerned in late 2019 to learn of a letter the NH Congressional Delegation sent to the EPA Administrator asking that electricity generated by biomass and waste combustors be included in the Federal Renewable Fuel Standard. We were later disappointed by the Delegation's support for a budget rider which included language asserting that burning forest biomass for energy is to be treated as carbon neutral. This unscientific decree flies in the face of atmospheric physics and chemistry.

Senator Shaheen was kind enough to provide the following explanation:

[On] December 20, 2019, government funding legislation for Fiscal Year 2020 was signed into law which included a provision recognizing forest biomass as carbon neutral. As requested, I have included a copy of that provision below.

Sec. 440. To support the key role that forests in the United States can play in addressing the energy needs of the United States, the Secretary of Energy, the Secretary of Agriculture, and the Administrator of the Environmental Protection Agency shall, consistent with their missions, jointly—

(1) ensure that Federal policy relating to forest bioenergy—

(A) is consistent across all Federal departments and agencies; and

(B) recognizes the full benefits of the use of forest biomass for energy, conservation, and responsible forest management; and

(2) establish clear and simple policies for the use of forest biomass as an energy solution, including policies that—

(A) reflect the carbon-neutrality of forest bioenergy and recognize biomass as a renewable energy source, provided the use of forest biomass for energy production does not cause conversion of forests to non-forest use.

You may read the full law here:

<https://rules.house.gov/sites/democrats.rules.house.gov/files/BILLS-116HR1865SA-RCP116-44.PDF>

Treating forest bioenergy as a carbon free renewable energy source is not a defensible position in 2020, at a time when atmospheric carbon emissions must be reduced as rapidly as possible. That biomass combustors are also large sources of air pollution with impacts on health* and environmental quality simply caps the argument that subsidizing woody biomass incinerators is unreasonable. For this reason we support HB1478.

*State of New Hampshire Air Quality - 2017: Air Pollution Trends, Effects and Regulation

"Despite the improvement in air quality, air pollution in New Hampshire is estimated to have cost residents and businesses of New Hampshire over \$3 billion per year from 2013 to 2015 in health care costs and lost productivity." Source: State of New Hampshire Air Quality - 2017:

<https://www.des.nh.gov/organization/commissioner/pip/publications/documents/r-ard-17-01.pdf>

Attached please find correspondence Working on Waste sent to NH's Congressional Delegation on November 26, 2019. Included with this correspondence are the Delegation's letter to the US EPA Administrator and a

letter to the Dartmouth College Community from three distinguished scientists about a proposed biomass project in Hanover, NH.

We have also attached a column by Bill McKibben, which appeared on January 25, 2020 in *CommonWealth Magazine*. Please help end the drive by vested interests to subsidize 'smokestack renewables' and support removing biomass combustion for energy production from NH's portfolio of renewable energy resources. Forested woodlands have a higher use. It is past time that NH's forest policy reflects the urgency with which we must address a rapidly changing climate. Biomass and waste incineration are an unnecessary and avoidable source of manmade atmospheric carbon emissions undertaken at the expense of increasing the State's capacity to sequester carbon.

Sincerely,



John Tuthill
PO Box 49
Acworth, NH
03601
603-863-6366



Katie Lajoie
429 Wheeler Rand Road
Charlestown, NH
03603
603-826-4803

Enclosures

WORKING ON WASTE
PO Box 641
Claremont, NH 03743
Citizens' initiative promoting safe alternatives to incineration

November 26, 2019

Via certified mail and electronic mail

Senator Jeanne Shaheen
2 Wall Street, Suite 220
Manchester, NH 03101
E-mail: Jon Jarvis
jon_jarvis@shaheen.senate.gov

Senator Margaret Hassan
1589 Elm Street, Third Floor
Manchester, NH 03101
E-mail: Chelsea Christiansen
chelsea_christiansen@hassan.senate.gov

Congresswoman Ann McLane Kuster
18 North Main Street, Fourth Floor
Concord, NH 03301
E-mail: Jenni Muns
jenni.muns@mail.house.gov

Congressman Chris Pappas
889 Elm Street
Manchester, NH 03101
E-mail: Elizabeth Kulig
elizabeth.kulig@mail.house.gov

RE: Letter from New Hampshire Congressional Delegation to Andrew Wheeler,
Administrator, United States Environmental Protection Agency, October 28, 2019

Dear Senator Shaheen, Senator Hassan, Congresswoman Kuster, and Congressman Pappas,

Last month, in a letter dated October 28, you asked the United States Environmental Protection Agency (EPA) “to include electricity in the Renewable Fuel Standard (RFS) program in time for electricity producers to participate in the 2020 market.” We have enclosed your letter for ease of reference (enclosure #1).

We are opposed to subsidies for the biomass industry and the waste-to-energy industry, high profile topics in New Hampshire. Our focus is on the well-documented environmental and public health risks associated with incineration, including climate disruption. Your request to the EPA is misguided and should be withdrawn.

Combustion releases toxic chemicals in a form that can be easily inhaled and ingested. These chemicals include persistent toxic substances such as lead and mercury. In 2017, just one boiler at the Wheelabrator incinerator released 83 pounds of lead into the air over Concord, an astonishing amount given that the toxicity of lead is measured in micrograms or millionths of a gram.¹

Waste and biomass incinerators are all included in the New Hampshire Department of Environmental Services' (DES) Title V permit list.² This means they "emit or have the potential to emit the following pollutants at the levels specified:"³

- 10 tons per year (TPY) or more of any one hazardous air pollutant;
- 25 TPY or more of any combination of hazardous air pollutants;
- 100 TPY or more of Nitrogen Oxides (NOx) for sources located in Belknap, Carroll, Cheshire, Coos, Grafton, and Sullivan counties;
- 50 TPY or more of NOx for sources located in Hillsborough, Merrimack, Rockingham, and Strafford Counties;
- 50 TPY or more of Volatile Organic Compounds; or
- 100 TPY or more of any criteria pollutant (e.g., sulfur dioxide, particulate matter, carbon monoxide, etc.).

In addition, the Wheelabrator incinerator in Concord "is categorized as a major source of greenhouse gas (GHG) emissions under Title V."⁴ Biomass and trash incineration are not sources of clean, renewable energy.

We have enclosed an open letter to the Dartmouth College community where three alumni express their "alarm" over a proposed biomass facility on campus (enclosure #2).⁵ The

¹ Wheelabrator Concord Company, L.P. (2018). *Reporting Year 2017: Monthly Metals/Dioxin Emission Inventory, Boiler #1*

² New Hampshire Department of Environmental Services. (2019). *Current Title V Sources*. [online] Available at: <https://www.des.nh.gov/organization/divisions/air/pchb/tvs/table.htm> [Accessed 26 November 2019].

³ New Hampshire Department of Environmental Services (2019). *Title V Section*. [online] Available at: <https://www.des.nh.gov/organization/divisions/air/pchb/tvs/index.htm> [Accessed 26 November 2019].

⁴ New Hampshire Air Resources Division, Department of Environmental Services (2018). *Findings of Fact and Director's Decision in the Matter of the Issuance of a Title V Operating Permit to Wheelabrator Concord Company, L.P.*, p.8.

⁵ Woodwell, George M., William Schlesinger, John D. Sterman. Letter to the Dartmouth College Community. 5 July 2019.

1

authors raise concerns about deforestation and an increase in carbon emissions if the facility goes on line. They caution that “wood generates a variety of public health harms over and above its harm to the climate,” and that removing wood “deprives forests of the nutrients and soil carbon needed to ensure vigorous replacement growth.” The authors “urge a major effort in energy efficiency for the College’s facilities,” arguing that “efficiency is the fastest, cheapest, and safest way to meet people’s need for warm buildings in winter and cool ones in summer.”

The Natural Resources Defense Council (NRDC) also understands why burning wood and trash for heat and electricity does not create clean, renewable energy. NRDC writes:⁶

Trees take decades to grow. Clearing forests to produce electricity causes a big outflow of emissions in the short term, as burning all that organic matter releases substantial amounts of carbon dioxide. And double-whammy: Once cleared, the forest is no longer available to soak up more of that carbon from our atmosphere—which is a big deal. In the United States, we rely on the expansion of forest carbon sinks to offset roughly 13 percent of annual global warming pollution.

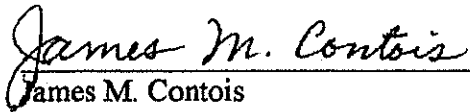
NRDC concludes that “Innovations in solar, wind, and geothermal energy are significantly more promising,” noting “these forms of renewable energy perform better than bioenergy where it counts: in reducing carbon emissions.” NRDC states “solar and wind are making big technological leaps, allowing us to better capture, store, and transport this energy for less money.”

NRDC also cautions that burning waste to generate electricity is an “environmental misstep” and that we should direct our focus and resources toward waste reduction, recycling, and composting.

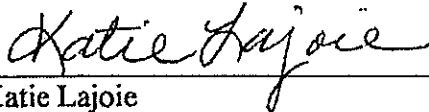
We request that you work with us to help New Hampshire create policies that reflect a serious commitment to clean and sustainable energy. We need to retire smokestacks because incineration pollutes, wastes resources, and diverts attention from where the focus should be: wind, solar, and geothermal. Please withdraw your request to EPA.

⁶ Lindwall, Courtney, Natural Resources Defense Council. (5 June 2019). *Bioenergy 101*. [online] Available at: <https://www.nrdc.org/stories/bioenergy-101> [Accessed 26 November 2019].

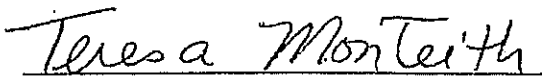
Sincerely for Working on Waste,



James M. Contois
603-504-8379
jcontois48@gmail.com



Katie Lajoie
603-826-4803
jlje23@hotmail.com



Teresa Monteith
928-592-7376
besa.ann55@gmail.com



Mary Schissel
603-863-7323
schissell@comcast.net



David L. Sussman
603-526-2838
dlsnh93@gmail.com



John Tuthill
603-863-6366
jtuthill@sover.net

Enclosures

Copy: Andrew Wheeler, Administrator, Environmental Protection Agency

Enclosure #1

Senator Jeanne Shaheen, Senator Margaret Wood Hassan, Congresswoman Ann McLane Kuster, and Congressman Chris Pappas. Letter to The Honorable Andrew Wheeler, Administrator, Environmental Protection Agency. 28 October 2019.

Congress of the United States

Washington, DC 20510

October 28, 2019

The Honorable Andrew Wheeler
Administrator
Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20004

Dear Administrator Wheeler:

We write to urge you once more to include electricity in the Renewable Fuel Standard (RFS) program in time for electricity producers to participate in the 2020 market.

More must be done to ensure that biofuels producers have access to the markets. Congress intended electricity to be part of the program when it passed RFS2 in 2007 as part of the Energy Independence and Security Act. Congress mandated a renewable volume obligation of 8.5 billion gallons for 2019 for the cellulosic fuel category, where most electricity would qualify. However EPA has achieved only 418 million gallons for this year. It is well past time for the EPA to include electricity in the renewable volume obligations.

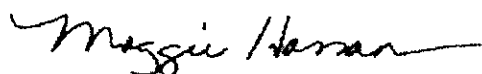
Failing to include electricity has had, and will continue to have, dire consequences for electricity producers who cannot participate in the program and the supply chains that rely on them. Biomass, biogas and waste-to-energy producers are making biofuels available for transportation but are receiving no credit under the RFS for doing so. This puts rural jobs and local government infrastructure at risk in vital sectors of our economy, including farming, forestry, logging and waste-to-energy.

As the Administration considers changes to the 2020 Renewable Volume Obligation, including electricity should be a top priority.

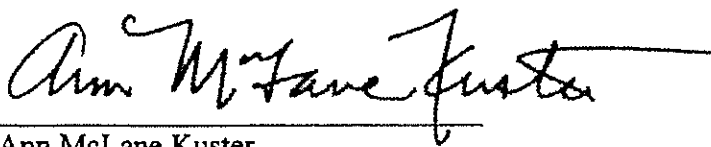
Sincerely,



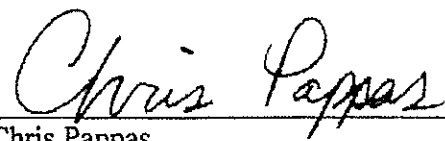
Jeanne Shaheen
United States Senator



Margaret Wood Hassan
United States Senator



Ann McLane Kuster
Member of Congress



Chris Pappas
Member of Congress

Enclosure #2

George M. Woodwell, William Schlesinger, and John D. Sterman. Letter to the Dartmouth College Community. 5 July 2019.

July 5, 2019

To the Dartmouth College Community

We are three alumni who have led major scientific programs and research institutions dealing in part with forests as cause and cure of the climatic disruption. We have also been involved for decades in evaluating alternatives to fossil fuels in domestic and institutional settings.¹ We have read with interest and no little alarm that Dartmouth intends to replace its oil-fired steam heating system with a large wood-burning facility nominally in the interest of reducing institutional carbon emissions. While it is commendable to find ways to reduce the College's dependence on fossil fuels, the important goal is to reduce Dartmouth's net carbon dioxide (CO₂) emissions. Switching from oil to wood will increase the College's emissions substantially.

Shifting from steam to hot water will provide a modest saving in the need for primary heat. However, shifting from heating oil to wood to supply that energy will increase the college's carbon emissions substantially, worsening global warming and climatic disruption when dramatic emissions reductions are urgently needed to limit climate change.

The problems are several. First, the Intergovernmental Panel on Climate Change (IPCC) and many peer-reviewed studies show that wood generates significantly more CO₂ than the fuel oil it would replace, and even more than the natural gas used by Dartmouth's Mary Hitchcock Hospital. The carbon content of wood is about 30% higher per unit of primary energy than fuel oil and about 80% higher than natural gas. Second, the combustion efficiency of wood is less than that of modern oil and gas systems. Third, the wood supply chain requires substantial energy for harvest, transport, processing and drying prior to use, and for ash disposal.²

Therefore, the first impact of switching from oil to wood will be an *increase* in Dartmouth's carbon dioxide emissions, worsening climate change.

Of course, over time, the forests harvested to supply that wood may grow back, gradually removing CO₂ from the atmosphere. That is the great hope underlying the use of bioenergy. However, and crucially, regrowth takes time and is not certain. In the northern forests that would supply the proposed plant, the time required to remove the excess CO₂ emitted from burning wood instead of oil is many decades at least, and possibly more than a century. This is true even under the optimistic assumptions that the harvested lands will remain forest and will not be converted to pasture, cropland, or development, and that the new growth in those forests will not suffer die-off from disease and insect damage, or burn in wildfire, all more likely as the world warms.

These dynamics mean that switching from oil to wood will worsen Dartmouth's contribution to climate change for decades, when the IPCC and scientists around the world agree that global emissions must fall dramatically by 2030, and essentially to zero by mid-century.³

The College's announcement states that only "waste wood" that would normally decay will be used, but it is difficult to verify that all such fuel is "waste-wood." In fact, removing wood, "waste" or not, deprives forests of the nutrients and soil carbon needed to ensure vigorous replacement growth. Northern New Hampshire, where a number of wood burning power plants are located, has a much-depleted forest in terms of carbon stocks than do southern NH forests. None of these wood burning plants has proven economically viable. Four have closed; two seek \$75 million from the state legislature to remain open.

Furthermore, importing wood for fuel from other regions is in many instances proscribed to avoid spreading deadly tree diseases and pests such as the Emerald Ash Borer, now devastating ash in New England forests.

Wood generates a variety of public health harms over and above its harm to the climate. Wood smoke contains the most dangerous particulates of any fuel. Many regions have restricted wood burning for this reason. Winter temperature inversions in the Connecticut Valley capture fireplace and woodstove smoke now. The additional burden of smoke from a large wood-burning power plant could easily be enjoined by residents.

We urge you to avoid making a heavy investment in a mistaken assumption that a wood-fired heating plant will be of benefit to the College or the world.

Instead we urge a major effort in energy efficiency for the College's facilities. Efficiency is the fastest, cheapest, and safest way to meet people's need for warm buildings in winter and cool ones in summer. The increase in the up-front capital costs of highly efficient buildings, both new construction and retrofits, is very low (from roughly zero to a few percent), while their operating costs are far lower, often generating positive net present value while imposing little burden on cash flow.⁴ Simultaneously, we urge a careful look at local potential solutions for heating and cooling, including air-and ground-source heat pump systems, powered by renewable energy from local sources including solar photovoltaics, wind, and water.

Yours truly,

George M. Woodwell '50, '96 (H), President Emeritus, Founder, Woods Hole Research Center, Woods Hole, MA

William Schlesinger '72, James B. Duke Professor of Biogeochemistry and Dean (Emeritus) Nicholas School of the Environment, Duke University

John D. Sterman '77, Jay W. Forrester Professor of Management, MIT, and Director, Sustainability Initiative, MIT Sloan School of Management

Notes and references:

¹ Woodwell, George, *The Nature of a House*. Island Press. Additionally, J. Sterman lives in a 90 year-old house in Lexington MA that, after a deep energy retrofit with solar PV, generates approximately 50% more energy than it

uses year-over-year, with no fossil fuel. Woodwell enjoys similar efficiency with solar PV and no fossil fuel in a 70 year old house in southern Maine. Schlesinger designed and lives in a house in eastern Maine, powered by photovoltaics that generate twice as much energy as he uses each year.

² Sterman et al. 2018a, 2018b provide life-cycle analysis showing that wood energy worsens climate change for decades to centuries, even if the wood displaces coal, the most carbon intensive fuel, and includes analysis of forests in New England as well as the southern US. See: <https://iopscience.iop.org/article/10.1088/1748-9326/aaa512> and <https://iopscience.iop.org/article/10.1088/1748-9326/aaf354>.

³ See, e.g., Figueres et al. 2018, *Nature*: <https://www.nature.com/articles/d41586-018-07585-6>, and IPCC 2018, Global Warming of 1.5°C. <https://www.ipcc.ch/sr15/>.

⁴ A post-audit showed that the MIT Sloan School of Management building, completed in 2010, uses about 70% less energy for heating and cooling, and about 40% less electric power, than a comparable code-compliant building, with an increase in up-front design and construction costs of approximately 0.25% of the project cost, because the higher costs of additional insulation, high-performance windows, efficient HVAC systems, etc. were nearly offset by savings due to the smaller HVAC system, electrical infrastructure, and steam and chilled water capacity enabled by the reduction in peak energy requirements. The project generated a net present value of nearly \$10 million (on a roughly \$140 million project) due to the savings from lower energy costs, with almost no impact on MIT's cash flow. See Lyneis, J. and J. Sterman 2016. How to Save a Leaky Ship: Capability Traps and the Failure of Win-Win Investments in Sustainability and Social Responsibility. *Academy of Management Discoveries* 2: 7-32.

CommonWealth Magazine / 2 simple steps to address climate change

Protect conservation land, ban burning of wood for energy



BILL MCKIBBEN Jan 25, 2020

HAVING GROWN UP in the wooded suburbs of Boston, and then moved to the deep woods of the Adirondack and Green Mountains, I can be fairly accused of loving the forest—for its wildlife, for its beauty, for its recreational opportunities—and, on this overheating planet, for the fact that it sucks up carbon that would otherwise add to our global warming burden. Many of the things we need to do to fight climate change will be hard, and some will be expensive. But a lucky few strategies are not only effective but also simple. In this case, a crucial solution requires only the stroke of a pen. Well, two strokes, for two bills that are pending in the Massachusetts Legislature, which can be implemented immediately and will not cost taxpayers a dime.

One bill is H.897, sponsored by Rep. Susannah Whipps, an Independent from Athol. The bill would designate all Massachusetts state conservation land as parks or reserves with protection similar to National Parks — where forest ecosystems are guided primarily by natural processes and carbon storage is optimized. The other bill, H.853, sponsored by Rep. Denise Provost of Somerville, ensures that Massachusetts' renewable energy subsidies are directed to truly clean energy such as wind, solar, and geothermal, rather than burning wood.

The Intergovernmental Panel on Climate Change (IPCC) has concluded that to limit catastrophic global warming we need to both drastically reduce greenhouse gas emissions over the next 10 years and draw down the excess carbon dioxide that has built up in the atmosphere. Trees are an important part of both sides of the equation. Put simply, to fight climate change, we need to stop burning trees and let them grow. And the latest science makes clear that the longer and larger they grow, the more carbon they suck up.

That's why H. 897 would protect 610,000 acres of state lands — encompassing 20 percent of the state's forests — as parks or reserves where forest ecosystems are guided primarily by natural processes, much like New

York's Adirondack Preserve or our National Parks. Having raised my family in the Adirondacks, I can tell you that this kind of protection is invaluable. This bill is the cheapest and quickest step the people of Massachusetts can take to maximize the storage of carbon in forests and help to mitigate climate change.

The second bill—H.853—may be even more important, because it takes on one of the biggest climate hoaxes perpetrated around the world. That's the idea that burning wood for energy – aka biomass – is carbon neutral. In fact, burning wood fuels, whether to produce heat, electricity, or both, generates far more CO₂ emissions than even the dirtiest fossil fuels, not to mention large quantities of fine particulates and other air pollutants that are hazardous to human health. While in theory, forest regrowth would eventually be able to absorb the carbon released from combustion, it would take decades to over a century to achieve parity with fossil fuel emissions – time that we do not have. Long before the forests ever grow back, the planet's climate system will be broken for good.

Currently, Gov. Charlie Baker's administration is seeking to expand subsidies for wood burning in Massachusetts' ratepayer funded renewable energy programs. It is absurd to use dedicated clean energy funding to subsidize technologies that actually *increase* CO₂ emissions and air pollution. H.853 would remove biomass eligibility from the state's Alternative Portfolio Standard, which promotes renewable heating, and should be amended to remove biomass from the Renewable Portfolio Standard for electricity as well. This bill, which would ensure that these programs incentivize truly clean renewable energy, is a no brainer – and it should be acted upon immediately.

What stands out about these two bills is their simplicity, cost-effectiveness, and practicality. But unless they are reported out of committee by February 5, they will be dead for the year. Massachusetts lawmakers must act decisively to pass both bills now, because there is no time to lose.

Meet the Author

Bill McKibben

Middlebury College

Bill McKibben is the Schumann Distinguished Scholar at Middlebury College.

Bill as
Introduced

HB 1478 - AS INTRODUCED

2020 SESSION

20-2618

10/04

HOUSE BILL **1478**

AN ACT repealing the law on preservation and use of renewable generation to provide fuel diversity.

SPONSORS: Rep. Harrington, Straf. 3

COMMITTEE: Science, Technology and Energy

ANALYSIS

This bill repeals RSA 362-H on the preservation and use of renewable generation to provide fuel diversity.

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.

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Twenty

AN ACT repealing the law on preservation and use of renewable generation to provide fuel diversity.

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

1 1 Statement of Findings. The general court hereby finds that the Federal Energy Regulatory
2 Commission (FERC) has found RSA 362-H, on the preservation and use of renewable generation to
3 provide fuel diversity, to be federally preempted.

4 2 Repeal. RSA 362-H, relative to the preservation and use of renewable generation to provide
5 fuel diversity, is repealed.

6 3 Effective Date. This act shall take effect upon its passage.