

LEGISLATIVE COMMITTEE MINUTES

# **HB291**

Bill as  
Introduced

HB 291 - AS INTRODUCED

2015 SESSION

15-0596  
09/01

HOUSE BILL           **291**

AN ACT           establishing a committee to study modernization of the energy grid in  
New Hampshire.

SPONSORS:       Rep. Shepardson, Ches 10; Rep. Borden, Rock 24; Rep. Murotake, Hills 32;  
Sen. Fuller Clark, Dist 21

COMMITTEE:      Science, Technology and Energy

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ANALYSIS

This bill establishes a committee to study modernization of the energy grid in New Hampshire.

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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Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

STATE OF NEW HAMPSHIRE

*In the Year of Our Lord Two Thousand Fifteen*

AN ACT            establishing a committee to study modernization of the energy grid in  
New Hampshire.

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

1            1 Committee Established. There is established a committee to study modernization of the  
2 energy grid in New Hampshire.

3            2 Membership and Compensation.

4            I. The members of the committee shall be as follows:

5            (a) Three members of the house of representatives, appointed by the speaker of the  
6 house of representatives.

7            (b) One member of the senate, appointed by the president of the senate.

8            II. Members of the committee shall receive mileage at the legislative rate when attending to  
9 the duties of the committee.

10          3 Duties. The committee shall study modernization of the energy grid in New Hampshire.

11          4 Chairperson; Quorum. The members of the study committee shall elect a chairperson from  
12 among the members. The first meeting of the committee shall be called by the first-named house  
13 member. The first meeting of the committee shall be held within 45 days of the effective date of this  
14 section.

15          5 Report. The committee shall report its findings and any recommendations for proposed  
16 legislation to the speaker of the house of representatives, the president of the senate, the house  
17 clerk, the senate clerk, the governor, and the state library on or before November 1, 2015.

18          6 Effective Date. This act shall take effect upon its passage.

# Speakers



# Hearing Minutes

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

PUBLIC HEARING ON HB 291

**BILL TITLE:** establishing a committee to study modernization of the energy grid in New Hampshire.

**DATE:** 2-3-15

**LOB ROOM:** 304

**Time Public Hearing Called to Order:** 11 am

**Time Adjourned:** 12:00

(please circle if present)

**Committee Members:** Reps. Introne, Richardson, Devine, Rappaport, Murotake, Vadney, Parison, Notter, Aldrich, Halstead, Thomas, Vose, Baber, Cali-Pitts, Borden, Harvey, Townsend, Backus, Mann, Shepardson, and Moffett.

**Bill Sponsors:** Reps. Shepardson, Borden, Murotake and Sen. Fuller Clark

TESTIMONY

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

\***Rep Marjorie Shepardson, prime sponsor** – We need a plan for the State of New Hampshire. If Rep. Donaldson bill passes, we do not. See written testimony.

\***Patricia Martin, electrical engineer from Rindge, NH** – Supports the bill. See written testimony.

**Q: Rep. Laurence Rappaport** – Which grid do you support; the feds regulation of wholesale power and the state regulated by the state. Which do you mean?

**A:** I mean the whole grid both federal and state are working together.

**Q: Rep. Suzanne Harvey** – Do you have any idea if other states are working on this issue?

**A:** We are not the only one looking at this.

**Q: Rep., Robert Backus** – What do you mean by dynamic pricing.

**A:** I would like to see pricing those changes and that you can see.

**Q: Rep. Michael Vose** – Why did you set this committee with this configuration?

**A:** This is the way the committee is structured.

**Q: Rep Douglas Thomas** - I would send this committee with people who have interest and background in the area.



**A:** I will work with you.

**\*Rep. David Borden, co-sponsor** – This is a good bill.

**Meredith Hatfield, NH Office of Energy & Planning** – Grid moratorium at this time. New York has a broad docket on the NY Energy because of Hurricane Sandy. Massachusetts is looking at how to reduce the peak demand. We would look at what we are doing well and where we need to improve if the other bill HB 614 does not pass. This bill HB 291 is a good bill if HB 614 does not pass. Focus on the full improvement to the whole system; wholesale and transmission. Does this bill interfere with the big grid; this will move to micro grid and a smaller generation and limit power outages.

**Q: Rep Howard Moffett** - A lot of people looking at modernization of the grid; could we get an explanation of broad overview of the grid?

**A:** Most people who generate power all of them could be good for input to the discussion by all the stakeholders on this issue.

**Mark Lambert, UNITIL** – Neither supports or against the bill.

**Tom Frantz, PUC** – Supports the bill. Here to answer questions.

**Q: Rep. Rappaport** – Has there been a study as to bury overhead power lines?

**A:** Mr. Lambert and Mr. Franz said there are many studies on buried as to overhead transmission. Both agreed that system of removing vegetation removal in the transmission lines.

**Q: Rep. Charles Townsend** – What is the best way to improve the grid?

**A: Mr. Franz** – I do not know if a large docket will answer these questions.


**Q: Rep. Herbert Vadney** – How do you go about doing this study?

**A:** It's always easy to build a new system when you upgrade the electricity system. It is costly to go under ground; it is very time-consuming.

**Kate Epsen, NHSEA** – My testimony is redundant; supports the bill.

Blue Sheet: 3 favor, 0 opposed.

Respectfully Submitted:



James E. Devine, Clerk

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

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**Bill Sponsors:** Reps. Shepardson, Borden, Murotake and Sen. Fuller Clark

TESTIMONY

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

* Rep Shepardson	sponsor	I support Bill
Rep Borden	sponsor	
* Pat Marten	Read by Rep Shepardson	I support Bill
Meridith Hatfield	OFFICE OF ENERGY & PLANNING	I support Bill
Mark Lambert	UNITS	Neither for or against
Tom Frantz	POC	
* Kate Epsen	NHSEA	I support the Bill

2-3-15 HB 291

\* sponsor Rep Shepardson I support the bill  
written testimony  
we need a plan for the state of NJ  
if Rep Daxalson bill passes we do not

Pat Martin Electric ~~engineers~~ engineer support Bill  
letter written and presented by Rep Shepardson

Rep. Rappoport which grid do you support

the Feds regulation of wholesale power and the state  
regulated by the state  
which do you mean

ANS I mean the whole grid both Federal and the state  
are working together

Rep Harvey Do you have any idea if other states  
are working on this issue

ANS we are not the only one looking at this

~~Rep Shepardson~~

Rep Backus what do you mean by dynamic  
pricing

ANS I would like to see pricing that  
changes and you can see

2-3-15 HB 291

Rep Vose why did you set this committee with this configuration

Ans this is the way the committee is structured

Rep Thomas I would you set this committee with people who have interest and background in the area Ans I will work with you

sponsored

\* Rep Borden

I support BA

this is a good bill

Meridith Hatfield

Good Moderation at this time NY is Abroad docked on the NY Energy because of Hurricane Sandy Mass is looking at how to reduce the peak demand - we will look at what we are doing well and where we need to improve

IF the other Bill ~~HB 614~~ does not pass. ~~this~~ this bill <sup>291</sup> is a good bill IF HB 614 does not pass

Focus on the full improvement to the whole system whole sale and transmission

2-3-15 HB 291

Does this Bill interfere with the Big grid this will move to micro grid And a ~~small~~ smaller generation and limit power stages

Rep Moffell. A lot of people looking at modernization of ~~grid~~ grid - could we get an explanation broad overview of the grid  
ANS Most Regs who generate power All of them could be good for ~~input~~ input The discussion by all the state holder on this issue.

Mark Lambert From UNITIL Neither support nor oppose

Tom Frantz PUC here to answer question

Rep Bapparat has there been a study to beared as to overhead ~~power~~ power lines

ANS Mr Lambert & Mr Frantz said there are many studies on beared as to overhead transmission Both agreed that system of removing vegetation removal in the transmission lines

Rep Townsend what is the best way to improve the grid

ANS. T. Frantz I do not know if a large docket to answer these questions.

2-3-15 HB 291

Rep. Vadney  
doing this study

how do you go about

Ans T Franz is always easy to

Build a new system when you are grade

the electricity system it is costly

to go to under ground it is very time consuming

Rate Epsen NHSEA My testimony is redundant

Blue sheets

3 Favor

0 opposed

# Testimony

Written Testimony on HB 291: An Act establishing a committee to study modernization of the energy grid in New Hampshire

And

HB 362: An Act relative to the reliability of the electric grid.

February 3, 2015

Patricia Martin  
17 Farrar Road  
Rindge, NH 03461  
603-899-2894

Dear Representative Shepardson,

Please accept my written testimony in support of HB 291 and HB 362

I offer my background here because I hope it will explain my perspective on this bill.

I am a retired Electrical Engineer and systems designer named in several patents for low power circuit design related to communications and portable computers. The teams I worked with helped bring the power of desktop computing to battery operated handhelds through an innovative approach to power management.

Our first challenge in designing portable computers was getting the power supply designers to stop designing power supplies for peak loads. While a "safe" approach to design, it resulted in too large and heavy power supplies and batteries, and extra components for cooling.

We made sure that every component we designed into the system was the lowest power version we could find. In some cases, we had to design our own devices to meet system goals.

The next hurdle was measuring the amount of power being used and the amount of battery life remaining. It is a fact that you can't control what you can't measure.

Another challenge was in developing a "distributed" power supply system that could turn power off and on to various components based on usage and system demand.

There were many other barriers to overcome along the way, but we found ways to get past them. Many "experts" told us it couldn't be done. Many others were of the opinion that a small device would have to be "cheaper" in order to get people to buy them. Neither proved true.

Today, we are engaged in a similar effort to make our electric grid more efficient, resilient, and reliable. The demands created by distributed intermittent renewable energy sources must be faced head on with solutions that include storage capacity and sophisticated command and control.

The Institute of Electrical and Electronic Engineers (IEEE) has an active working group on "Smart Grids" to which I subscribe. I highly recommend them as a source for unbiased (or disclosed) information about the challenges and opportunities that come with grid modernization.

I would also like to point you to the IEEE Smart Grid group article on A/C versus D/C, as I know that there are two proposals on a grid reliability project before the PUC. <http://smartgrid.ieee.org/questions-andanswers/902-ieee-smart-grid-experts-roundup-ac-vs-dc-power>



I fully support HB 291 and HB 362 and applaud the Sponsors of the bill for their efforts to modernize our grid.

Sincerely,  
Pat Martin

HB 291:

Establishing a committee to study modernization of the energy grid in NH

Thank you, Mr. Chairman and Representatives.

The NH 10-year State Energy Strategy that came out in September of 2014 had many recommendations for improving energy use in our state. One of the primary recommendations was to open a PUC docket on grid modernization. It stated that,

“The electric grid is aging, and changing consumer use patterns, a new generation mix, and increased threats from severe weather events require a more modern system. The NH PUC should open a docket to determine how to advance grid modernization in the state. In light of the potential breadth of the topic, which could include dynamic pricing, better consumer access to technology, and even rethinking the role of utilities, an investigation or information-gathering proceeding may be an appropriate first step.”

“This would allow the PUC and stakeholders to determine which approaches will benefit New Hampshire consumers, and when and how they should be implemented.”

A non-profit group called ENE, from the Acadia Center, made a presentation last March about reforming the electric grid. They talked about transforming the grid “from a centralized network run by electricity producers, distributors, and system operators to a more decentralized consumer interactive network. A smarter system would be better able to take advantage of energy efficiency, clean distributed resources, and energy storage (including electric vehicles) to meet our energy needs.”

There are many avenues to explore such as time-of-day rates, micro-grids, distributed generation, renewable energy, synchrophasor technology, and things I don't even know about yet. That's why I believe it's important to have a study committee to bring in the people who know more than we legislators do, and decide how to get from where we are to where we need to be.

Thank you for your time.  
Rep. Marge Shepardson

# Voting Sheets

**HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY**

**EXECUTIVE SESSION on HB 291**

**BILL TITLE:** establishing a committee to study modernization of the energy grid in New Hampshire.

**DATE:** 2-4-15

**LOB ROOM:** 304

**Amendments:**

Sponsor: Rep.

OLS Document #:

Sponsor: Rep.

OLS Document #:

Sponsor: Rep.

OLS Document #:

**Motions:** OTP, OTP/A, ITL, Retained (Please circle one.)

Moved by Rep.

Seconded by Rep.

Vote: (Please attach record of roll call vote.)

**Motions:** OTP, OTP/A, ITL, Retained (Please circle one.)

Moved by Rep. Shepardson

Seconded by Rep. Vose

Vote: 21-0 (Please attach record of roll call vote.)

**CONSENT CALENDAR VOTE:** Consent or Regular (Circle One)

(Vote to place on Consent Calendar must be unanimous.)

**Statement of Intent:** Refer to Committee Report

Respectfully submitted,  
Rep. James Devine, Clerk

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

EXECUTIVE SESSION on HB 291

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**DATE:** 2-4-15

**LOB ROOM:** 304

**Amendments:**

Sponsor: Rep. *[Signature]* OLS Document #:  
Sponsor: Rep. OLS Document #:  
Sponsor: Rep. OLS Document #:

**Motions:** OTP, OTP/A, ITL, Retained (Please circle one.)

Moved by Rep. *Shephardson*

Seconded by Rep. *Vose*

Vote: (Please attach record of roll call vote.)

*21 0*

**Motions:** OTP, OTP/A, ITL Retained (Please circle one.)

Moved by Rep.

Seconded by Rep.

Vote: (Please attach record of roll call vote.)

**CONSENT CALENDAR VOTE:** Consent or Regular (Circle One)

(Vote to place on Consent Calendar must be unanimous.)

**Statement of Intent:** Refer to Committee Report

Respectfully submitted,

Rep. James Devine, Clerk



2015 SESSION

SCIENCE, TECHNOLOGY AND ENERGY

Bill #: HB 291 Title: Est. a committee to study modernization of the energy grid in NH  
PH Date: 2 / 4 / 15 Exec Session Date: 2 / 4 / 15  
Motion: ITL Amendment #: \_\_\_\_\_

MEMBER	YEAS	NAYS
Introne, Robert E., Chairman	1	
Richardson, Herbert D., V Chairman	1	
Devine, James E., Clerk	1	
Rappaport, Laurence M.	1	
Murotake, David K.	1	
Vadney, Herbert R.	1	
Parison, James A.	1	
Notter, Jeanine M.	1	
Aldrich, Glen C.	1	
Halstead, Carolyn	1	
Thomas, Douglas W.	1	
Vose, Michael	1	
Baber, William S.	1	
Cali-Pitts, Jacqueline A.	1	
Borden, David A.	1	
Harvey, Suzanne	1	
Townsend, Charles L.	1	
Backus, Robert A.	1	
Mann, John E.	1	
Shepardson, Marjorie J.	1	
Moffett, Howard M	1	
<b>TOTAL VOTE:</b>	<b>20</b>	<b>0</b>

# Committee Report

**CONSENT CALENDAR**

**February 11, 2015**

**HOUSE OF REPRESENTATIVES**

**REPORT OF COMMITTEE**

**The Committee on SCIENCE, TECHNOLOGY AND ENERGY to which was referred HB291,**

**AN ACT establishing a committee to study modernization of the energy grid in New Hampshire.**

**Having considered the same, report the same with the following Resolution: RESOLVED, That it is INEXPEDIENT TO LEGISLATE.**

**Rep. Marjorie J. Shepardson**

**FOR THE COMMITTEE**



## COMMITTEE REPORT

Committee:	<b>SCIENCE, TECHNOLOGY AND ENERGY</b>
Bill Number:	<b>HB291</b>
Title:	<b>establishing a committee to study modernization of the energy grid in New Hampshire.</b>
Date:	<b>February 5, 2015</b>
Consent Calendar:	<b>YES</b>
Recommendation:	<b>INEXPEDIENT TO LEGISLATE</b>

### STATEMENT OF INTENT

The sponsor feels strongly that the State of New Hampshire should implement that goal in the new Ten-Year Energy Strategy which states New Hampshire should modernize the electric grid. This bill would have created a study committee to do that but another bill, HB 614, directs the PUC to open a docket on grid modernization. Since HB 614 would accomplish the same thing more quickly than this bill, the sponsor proposed to ITL HB 291.

Vote 21-0.

Rep. Marjorie J. Shepardson  
FOR THE COMMITTEE

Original: House Clerk  
Cc: Committee Bill File

## CONSENT CALENDAR

### SCIENCE, TECHNOLOGY AND ENERGY

**HB291**, establishing a committee to study modernization of the energy grid in New Hampshire.  
**INEXPEDIENT TO LEGISLATE.**

Rep. Marjorie J. Shepardson for SCIENCE, TECHNOLOGY AND ENERGY. The sponsor feels strongly that the State of New Hampshire should implement that goal in the new Ten-Year Energy Strategy which states New Hampshire should modernize the electric grid. This bill would have created a study committee to do that but another bill, HB 614, directs the PUC to open a docket on grid modernization. Since HB 614 would accomplish the same thing more quickly than this bill, the sponsor proposed to ITL HB 291. **Vote 21-0.**

# COMMITTEE REPORT

COMMITTEE: ST+E

BILL NUMBER: HB 291

TITLE: Establishing a committee to study modernization of the energy grid in NH

DATE: 2/4/15 CONSENT CALENDAR: YES  NO

(21-0)

- OUGHT TO PASS  
 OUGHT TO PASS W/ AMENDMENT  
 INEXPEDIENT TO LEGISLATE  
 INTERIM STUDY (Available only 2<sup>nd</sup> year of biennium)

Amendment No. _____
------------------------

## STATEMENT OF INTENT:

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COMMITTEE VOTE: 21-0

*OK  
Rep. Hulse  
Rechecked*

RESPECTFULLY SUBMITTED,

- Copy to Committee Bill File
- Use Another Report for Minority Report

Rep. Marjorie Shepardson  
For the Committee

HB 291  
Rep. Marjorie Shepardson  
ITL

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**Stapler, Carol**

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**From:** Larivee, Kathy  
**Sent:** Friday, February 06, 2015 12:33 PM  
**To:** Stapler, Carol  
**Subject:** HB291-Majority.doc  
edited copy for file

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**CONSENT CALENDAR**

**February 11, 2015**

<p><b>HOUSE OF REPRESENTATIVES</b> <b>REPORT OF COMMITTEE</b></p>
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INEXPEDIENT TO LEGISLATE.**

<p><b>Rep. Marjorie J. Shepardson</b> <b>FOR THE COMMITTEE</b></p>
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Bill Number:	<b>HB291</b>
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Vote 21-0.

Rep. Marjorie J. Shepardson  
FOR THE COMMITTEE

**CONSENT CALENDAR**

**SCIENCE, TECHNOLOGY AND ENERGY**

**HB291**, establishing a committee to study modernization of the energy grid in New Hampshire. **INEXPEDIENT TO LEGISLATE.**

Rep. Marjorie J. Shepardson for SCIENCE, TECHNOLOGY AND ENERGY. The sponsor feels strongly that the State of New Hampshire should implement a goal in the new Ten-Year Energy Strategy which states New Hampshire should modernize the electric grid. This bill would have created a study committee to do that but another bill, HB 614, directs the PUC to open a docket on grid modernization. Since HB 614 would accomplish the same thing more quickly than this bill, the sponsor proposed to ITL HB 291. **Vote 21-0.**