

Committee Report

REGULAR CALENDAR

March 6, 2018

HOUSE OF REPRESENTATIVES

REPORT OF COMMITTEE

The Majority of the Committee on Science, Technology and Energy to which was referred HB 1338,

AN ACT establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply. Having considered the same, report the same with the following resolution: RESOLVED, that it is INEXPEDIENT TO LEGISLATE.

Rep. Douglas Thomas

FOR THE MAJORITY OF THE COMMITTEE

**MAJORITY
COMMITTEE REPORT**

Committee:	Science, Technology and Energy
Bill Number:	HB 1338
Title:	establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply.
Date:	March 6, 2018
Consent Calendar:	REGULAR
Recommendation:	INEXPEDIENT TO LEGISLATE

STATEMENT OF INTENT

This bill seeks to explore the concept of microgrids in the electric supply and to uncover any legal barriers preventing their development and use. The committee heard testimony indicating no such barriers exist. It also learned of the studies already being conducted by the electric utilities which have produced no requests for legislative action. Additionally, the Chair of the Legislative Oversight Committee on Electric Utility Restructuring noted the subject of microgrids will be included in its agenda to monitor progress and actions needed, if necessary. The sponsor indicated he did not care if this study was approved as long as the subject of microgrids was included in other ways. The majority felt enough is being done in this regard, making this study unnecessary.

Vote 12-9.

Rep. Douglas Thomas
FOR THE MAJORITY

Original: House Clerk
Cc: Committee Bill File

REGULAR CALENDAR

Science, Technology and Energy

HB 1338, establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply. **MAJORITY: INEXPEDIENT TO LEGISLATE. MINORITY: OUGHT TO PASS.**

Rep. Douglas Thomas for the **Majority** of Science, Technology and Energy. This bill seeks to explore the concept of microgrids in the electric supply and to uncover any legal barriers preventing their development and use. The committee heard testimony indicating no such barriers exist. It also learned of the studies already being conducted by the electric utilities which have produced no requests for legislative action. Additionally, the Chair of the Legislative Oversight Committee on Electric Utility Restructuring noted the subject of microgrids will be included in its agenda to monitor progress and actions needed, if necessary. The sponsor indicated he did not care if this study was approved as long as the subject of microgrids was included in other ways. The majority felt enough is being done in this regard, making this study unnecessary. **Vote 12-9.**

Original: House Clerk

Cc: Committee Bill File

HB 1338, establishing a committee to study the changes in law necessary to allow for micro grids in electricity supply. **INEXPEDIENT TO LEGISLATE.**

Rep. Douglas Thomas for Science, Technology and Energy. This bill seeks to explore the concept of micro grids in the electric supply and to uncover any legal barriers preventing their development and use. The committee heard testimony indicating no such barriers exist. It also learned of the studies already being conducted by the electric utilities which have produced no requests for legislative action. Additionally, the Electric Utility Restructuring Legislative Oversight Committee Chair noted the subject of micro grids will be included in its agenda to monitor progress and actions needed, if necessary. The sponsor indicated he didn't care if this study was approved as long as the subject of micro grids was included in other ways. The majority felt this was enough and this study was not warranted. **Vote: 13-8.**

129
RB
2/22/18

REGULAR CALENDAR

March 6, 2018

HOUSE OF REPRESENTATIVES

REPORT OF COMMITTEE

The Minority of the Committee on Science, Technology and Energy to which was referred HB 1338,

AN ACT establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply. Having considered the same, and being unable to agree with the Majority, report with the recommendation that the bill OUGHT TO PASS.

Rep. Kenneth Vincent

FOR THE MINORITY OF THE COMMITTEE

**MINORITY
COMMITTEE REPORT**

Committee:	Science, Technology and Energy
Bill Number:	HB 1338
Title:	establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply.
Date:	March 6, 2018
Consent Calendar:	REGULAR
Recommendation:	OUGHT TO PASS

STATEMENT OF INTENT

Though the majority of the committee does not favor establishing this study committee, many people have no idea what a microgrid is. A microgrid is a localized group of electricity sources and loads that normally operates connected to and synchronous with the traditional centralized electrical grid (macrogrid), but can also disconnect off the grid and function autonomously as physical and/or economic conditions dictate. The US Department of Energy's Microgrid Exchange Group defined a microgrid as a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both a connected or off-grid mode. The value of using a microgrid together with storage capacities can keep areas fully supplied with energy when there is a blackout on the grid. This bill supports the Governor's goals for reducing energy costs in the state of New Hampshire. Let us give it a chance by establishing this study committee.

Rep. Kenneth Vincent
FOR THE MINORITY

Original: House Clerk
Cc: Committee Bill File

REGULAR CALENDAR

Science, Technology and Energy

HB 1338, establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply. **OUGHT TO PASS.**

Rep. Kenneth Vincent for the **Minority** of Science, Technology and Energy. Though the majority of the committee does not favor establishing this study committee, many people have no idea what a microgrid is. A microgrid is a localized group of electricity sources and loads that normally operates connected to and synchronous with the traditional centralized electrical grid (macrogrid), but can also disconnect off the grid and function autonomously as physical and/or economic conditions dictate. The US Department of Energy's Microgrid Exchange Group defined a microgrid as a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both a connected or off-grid mode. The value of using a microgrid together with storage capacities can keep areas fully supplied with energy when there is a blackout on the grid. This bill supports the Governor's goals for reducing energy costs in the state of New Hampshire. Let us give it a chance by establishing this study committee.

Original: House Clerk

Cc: Committee Bill File

Stapler, Carol

From: kvincentnhrep <kvincentnhrep@comcast.net>
Sent: Thursday, February 15, 2018 7:14 AM
To: handgolf10@outlook.com; Stapler, Carol; joel.andreson@leg.state.nh.us; robertbackus05@comcast.net
Subject: Minority blurb for HB1338

Dear Chairman Barry,

Please see below my minority report.


Kenneth Vincent for the minority of science technology and energy.

The majority of the committee doesn't feel that we should be establishing a committee to study the changes in law necessary to allow for microgrids in the electricity supply. A lot of people have no idea what a microgrid is!

Microgrid is a localized group of electricity sources and loads that normally operates connected to and synchronous with the traditional centralized electrical grid (macrogrid), but can also disconnect off the grid — and function autonomously as physical and/or economic conditions dictate.

Microgrid Exchange Group defines a microgrid as a group of interconnected loads and distributed energy resources (DERs) within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both connected or off grid-mode. The value of using a microgrid together with storage capacities can keep areas fully supplied with energy, when there is a black-out on the grid. This bill supports the Governor's goals for reducing energy costs in the state of New Hampshire. Let's give it a chance for a study committee to be formed.

State Representative
Kenneth Vincent



2/22/18

Voting Sheets

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

EXECUTIVE SESSION on HB 1338

BILL TITLE: establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply.

DATE: February 14, 2018

LOB ROOM: 304

MOTIONS: INEXPEDIENT TO LEGISLATE

Moved by Rep. D. Thomas

Seconded by Rep. B. Kuch

Vote: 12-9

CONSENT CALENDAR: NO

Statement of Intent: Refer to Committee Report

Respectfully submitted,



Rep Douglas Thomas, Clerk



2018 SESSION

ST&E

Bill #: HB1338 Title: Est. a committee to study changes in law necessary to allow for microgrids on electric supply
PH Date: 01, 24, 2018 Exec Session Date: 2 | 14 | 18

Motion: ITL Amendment #: _____

MEMBER	YEAS	NAYS
Barry, Richard W. Chariman	12	
Richardson, Herbert D. Vice Chairman	1	
Murotake, David K. <u>Hill</u>	2	
Vadney, Herbert R.	3	
Notter, Jeanine M.	4	
Aldrich, Glen C.	5	
Thomas, Douglas W. Clerk	6	
Vose, Michael	7	
Ammon, Keith <u>Lang</u>	8	
Kuch, Bill	9	
Smith, Gregory G. <u>McGuire</u>	10	
Merner, Troy	11	
Backus, Robert A.		1
Cali-Pitts, Jacqueline A.		2
Harvey, Suzanne		3
Mann, John E.		4
Moffett, Howard M. <u>Messmer</u>		5
Shepardson, Marjorie J.		6
Oxenham, Lee Walker		7
Somssich, Peter F.		8
Vincent, Kenneth S.		9
TOTAL VOTE:	12	9

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

EXECUTIVE SESSION on HB 1338

BILL TITLE: establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply.

DATE: 2/14/18

LOB ROOM: 304

MOTION: (Please check one box)

- OTP
- ITL
- Retain (1st year)
- Adoption of Amendment # _____ (if offered)
- Interim Study (2nd year)

Moved by Rep. Thomas Seconded by Rep. Kucy Vote: 12-9

MOTION: (Please check one box)

- OTP
- OTP/A
- ITL
- Retain (1st 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 (1st 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 (1st 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: _____

Rep Douglas Thomas, Clerk

Full
Committee
Work Session

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

FULL COMMITTEE WORK SESSION on HB 1338

BILL TITLE: establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply.

DATE: February 14, 2018

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

Comments and Recommendations: Desire of prime sponsor to keep micro grid subject alive. Noted a PUC docket open on micro grids: Contained within grid modernization docket. Noted that sponsor had not talk to PUC or utilities.

Respectfully submitted,

Rep. Douglas Thomas
Full Committee Clerk

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY
FULL
SUBCOMMITTEE WORK SESSION on HB 1338

BILL TITLE: establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply.

S: 11:26a

DATE: 2/14/18

E: 11:33a

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

Comments and Recommendations:

Desire of prime sponsor to keep micro grid subject alive. Noted a PUC docket open on micro grids: contained within grid modernization docket. Noted that sponsor had not talked to PUC or utilities. - Closed -

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. _____
Subcommittee Chairman/Clerk

Hearing Minutes



STATE OF NEW HAMPSHIRE
OFFICE OF THE HOUSE CLERK

1/5/2018 10:25:52 AM
Committee Attendance Registers - All
Report

2018 SESSION YEAR

For: 1 / 24 / 18

Science, Technology and Energy			
Employee No.	Name	Div-Seat	Signature
377203	Aldrich, Glen C.	3-037	<i>Glen Aldrich</i>
377204	Ammon, Keith	4-054	<i>Keith Ammon</i>
377064	Backus, Robert A.	5-016	<i>Robert A. Backus</i>
376711	Barry, Richard W.	2-005	<i>Richard Barry</i>
376191	Cali-Pitts, Jacqueline A.	3-033	<i>Jacqueline Cali-Pitts</i>
376584	Harvey, Suzanne	3-063	<i>Suzanne Harvey</i>
377244	Kuch, Bill	3-050	<i>Bill Kuch</i>
377138	Mann, John E.	5-012	<i>John E. Mann</i>
408060	Merner, Troy	3-060	<i>Present</i>
377148	Moffett, Howard M.	2-040	<i>Howard M. Moffett</i>
377151	Murotake, David K.	5-033	
376991	Notter, Jeanine M.	4-034	<i>Jeanine Notter</i>
377310	Oxenham, Lee Walker	5-038	
376514	Richardson, Herbert D.	4-041	<i>Herbert D. Richardson</i>
377168	Shepardson, Marjorie J.	2-049	<i>Marjorie J. Shepardson</i>
377262	Smith, Gregory G.	4-050	
408620	Somssich, Peter F.	4-057	<i>Peter F. Somssich</i>
377267	Thomas, Douglas W.	2-055	<i>Douglas W. Thomas</i>
377184	Vadney, Herbert R.	2-056	<i>Herbert R. Vadney</i>
408632	Vincent, Kenneth S.	3-072	<i>Kenneth S. Vincent</i>
377272	Vose, Michael	2-014	<i>Michael Vose</i>

Total Committee Members: 21

Speaker's Authorization

Date Keyed:

Received by Legislative Accounting

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

PUBLIC HEARING ON HB 1338

BILL TITLE: establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply.

DATE: January 24, 2018

LOB ROOM: 304 **Time Public Hearing Called to Order:** 10:49 am

Time Adjourned: 11:40 am

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

Bill Sponsors:

Rep. P. Schmidt

Sen. Watters

TESTIMONY

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

Rep. P. Schmidt, prime sponsor - Introduced the bill. Submitted after reading about micro-grids. Current grid is very vulnerable.

Q: Rep. Doug Thomas - Did you speak to utility companies to see what they were doing on micro-grids?

A: No; had no time.

Q: Rep. Michael Vose - Did you speak to other groups?

A: No.

***Christopher Skoglund, DES** - Supports; see written testimony.

Q: Rep. Doug Thomas - What other studies are there and what studies have utilities done?

A: Not aware of any.

Q: Rep. Robert Backus - What rules need changing or other barriers need removed?

A: DES has not looked into those areas.

Q: Rep. Jacqueline Cali Pitts - Would a hospital that burns wood to create its own electricity be considered a micro-grid?

A: Yes, could be. Micro-grids are able to disconnect from grid if needed. Air quality limits restrict some from qualifying for micro-grid.

Q: Rep. Howard Moffett - What are legal barriers?

A: None at all.

Q: Rep. John Mann - How important is it to study this? A need? Point?

A: Micro-grids becoming more popular and more people are looking into it.

***Alexander Tang, TRC** - Supports; see testimony.

Q: Rep. Michael Vose - Are there changes needed in the law?

A: Regulations are in question, ownership or public/private have different laws.

Q: Would micro-grids need look into transmission costs?

A: Yes, costs change once micro-grids are used.

Q; Rep. Keith Ammon - Who else should be on the study committee?

A: Technical, utilities, legal, for example.

Patricia Martin of Rindge representing self - Supports. Previous grid mode efforts did not include micro-grids due to lack of data. Example of issues: once a distribution line crosses a public highway, considered a utility.

Blue Sheet: Pro, 16; Con, 0.

Respectfully Submitted:

A handwritten signature in black ink, appearing to read "Doug Thomas". The signature is stylized and cursive.

Doug Thomas, Clerk

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

PUBLIC HEARING ON HB 1338

BILL TITLE: establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply.

DATE: 1/24/18

ROOM: 304

Time Public Hearing Called to Order: 10:49a

Time Adjourned: 11:40a

(please circle if present)

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

Bill Sponsors:
Rep. P. Schmidt

Sen. Watters

TESTIMONY

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

Rep Schmidt - intro bill. Submitted after reading about micro-grids. Current grid is very vulnerable.

Q/DT - did you speak to utility companies to see what they were doing on micro-grids? A/ no. had no time.

Q/MV - did you speak to other groups? A/ no.

* Christopher Skoglund - DES. Supports bill. See testimony.

Q/DT - what other studies are there and what studies have utilities done? A/ not aware of any. Q/RBK - what rules need changing or other barriers need removal? A/DES has not looked into those areas. Q/SC - would a hospital that burns wood to create its own electricity be considered a micro-grid?

A/ yes, could be. Micro-grids are able to disconnect from the grid if needed. Air quality limits restrict some from qualifying for micro-grid.

1/24/18

Cont'd

PH

Q/HM - what are legal barriers? A/ not familiar enough to comment. F/ any issue if bill expanded to include legal and all barriers? A/ not at all. Q/SM - how important is it to study this? A need? Point? A/ micro grids becoming more popular and more people are looking into it.

* Alexander Tang - TRC. Supports bill. See testimony. ~~Q/TV~~ Q/MV - are there changes needed in law? A/ regulations are in question, ownership on public/private have different laws. ~~Q/SC~~ ~~micro-grid~~ Q/RBK - would micro-grids need take into transmission costs? A/ yes, costs change once micro-grids are used. Q/KA - who else should be on the study committee? A/ technical, utilities, legal, for example.

Pat Martin - self. Supports bill. Previous ^{Grid} _{mod} efforts did not include micro-grids due to lack of data. Example of issues: once a distribution line crosses a public highway, considered a utility.

- Closed -

B. 5. 15 pro, 0 con

Testimony



104 Congress Street
Suite 401
Portsmouth, NH 03801

603.766.1913 PHONE
603.766.0401 FAX

www.trcsolutions.com

January 24, 2018

Members of the Science, Technology & Energy Committee,

My name is Alex Tang and I am a Project Manager at TRC. TRC is an engineering and consulting firm with more than 100 offices in the U.S., including New Hampshire offices in Portsmouth and Manchester. I am part of TRC's Microgrid Group with experience in conducting feasibility studies for microgrid systems in New York for the New York State Energy Research & Development Agency (NYSERDA) and in California for the California Energy Commission (CEC). Currently, I am involved with developing a design and business model for NYSERDA's New York Prize Phase 2 microgrid design.

TRC has experience working with state agencies and utility companies on developing microgrids. We are the Engineering and Technical Advisor for the State of Connecticut's Microgrid Pilot Program. It is exciting to see the increasing interest in microgrids in the Northeast and TRC is available to offer our support and insights to the committee as needed.

Alex Tang, Project Manager
TRC
atang@trcsolutions.com



**NEW HAMPSHIRE HISTORICAL OUTAGES ALL UTILITIES FOR WIDE SCALE
STORMS Prepared by NHPUC Safety Division Rev. 06/12/2015**

Event Name	December 11-24, 2008 Ice Storm	February 25-March 4, 2010 Windstorm	Oct 29-Nov 4, 2011 Nor'easter (snow)	Nov 26 - Dec 1 2014 Thanksgiving Eve Snowstorm	Oct 26 - 31 2012 Hurricane Sandy	Aug 28 - Sept 1 2011 Tropical Storm Irene
Concurrent Peak Customers Affected	432,632	337,542	299,235	238,865	160,000	184,701
% of Concurrent Customers Affected	63%	50%	43%	34%	27%	27%
Duration of Restoration (hrs)	312	144	159	114	108	79
Non Concurrent Peak Customers Affected*	434,828	383,649	323,949	274,142	200,707	187,905
% of NonConcurrent Customers Affected	63%	57%	47%	39%	26%	27%
# of Restoration Crews (ex Tree/Dmg Assrs)*	988	714	511	933	571	610
Wire Reattached/Replaced (ft)*	667,351	Incomplete Data	Incomplete Data	122,222	Incomplete Data	Incomplete Data
# of Transformers Replaced*	1,482	Incomplete Data	Incomplete Data	151	Incomplete Data	Incomplete Data
# of Poles Set*	968	Incomplete Data	Incomplete Data	95	Incomplete Data	Incomplete Data
# of Cross-arms Replaced*	1,864	Incomplete Data	Incomplete Data	232	Incomplete Data	Incomplete Data
Total Cost*	\$78,983,948.00	\$34,337,774.00	\$20,702,292.00	\$36,221,213.00	\$17,893,763.00	\$10,942,798.00

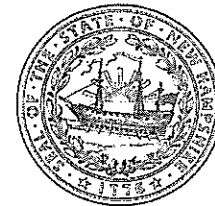
2017 Update:

Wind/Rainstorm - October 27 – November 1, 2017

- 270,000 customers were without power
- 34 percent of the state's power customers
- Multi-day restoration effort for many customers
- 4th largest outage



The State of New Hampshire
Department of Environmental Services



Robert R. Scott, Commissioner

January 24, 2018

The Honorable Richard Barry
Chair, Science, Technology, and Energy Committee
Legislative Office Building, Room 304
Concord, NH 03301

RE: HB 1338, *An Act establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply*

Dear Chair Barry and Members of the Committee:

Thank you for the opportunity to testify on HB 1338. This bill establishes a committee to study the changes in law necessary to allow for microgrids in electricity supply. In that clean microgrids offset more polluting sources of electric generation, the New Hampshire Department of Environmental Services (NHDES) supports this bill.

The US Department of Energy (DOE) defines a microgrid as:

"a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both grid-connected or island mode."¹

The concept of microgrids is of growing interest in New Hampshire as more frequent and extreme storm events have impacted the electric power grid over the last several decades. The top five most significant power outages have all occurred during the past decade and include: the 2008 ice storm; the 2010 windstorm; the 2011 pre-Halloween storm; the 2017 windstorm; and the Thanksgiving Eve 2014 Nor'easter.² Each of these storms affected more than 230,000 customers and with outage durations that exceeded 100 hours.³ The increasing frequency of these storms reduces the time to recover completely between incidents.

Microgrids offer the potential to counter some of the impacts of these extreme storms by enabling entire facilities, such as hospitals or campuses, or even whole communities to remain online during power outages. This would provide significant public safety and economic benefits by allowing critical services and downtown business to continue operation uninterrupted.

¹ Ton, T. and Smith, M. (2012). The U.S. Department of Energy's Microgrid Initiative, The Electricity Journal, <https://energy.gov/sites/prod/files/2016/06/f32/The%20US%20Department%20of%20Energy%27s%20Microgrid%20Initiative.pdf>.

² Cousineau, M. (2017). Power outages left up to 450,000 in the dark, Union Leader (October 30, 2017), <http://www.unionleader.com/weather/Power-outages-left-up-to-450000-in-the-dark-10312017>.

³ PUC (2015). New Hampshire Historical Outages All Utilities For Wide Scale, NH PUC Safety Division (June 12, 2015), <http://puc.nh.gov/Safety/Electrical%20Safety/Chart%20of%20Historical%20Storms.pdf>

www.des.nh.gov

29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3503 • Fax: 271-2867 TDD Access: Relay NH 1-800-735-2964

The Honorable Richard Barry
Chair, Science, Technology, and Energy Committee
January 24, 2018
Page 2

The importance of microgrids was highlighted in the 2014 New Hampshire 10-Year State Energy Strategy, which stated that:

*"Grid modernization offers important opportunities to improve the resiliency of our energy systems. Advanced development of self-contained 'micro-grids' in combination with on-site generation can allow facilities to withstand major storms and other energy outages."*⁴

The New Hampshire Public Utilities Commission (PUC) opened a docket, IR 15-296, to investigate grid modernization in New Hampshire. A report was submitted to the PUC by a working group in March 2017 following a nearly year-long investigation.⁵ This docket touched on, but did not adequately address, the issue of microgrids and so further exploration is warranted.

It is important to ensure that existing law does not inadvertently prevent our state from incorporating advanced energy solutions that will provide both greater efficiency and greater resiliency. A legislative study committee is the appropriate mechanism to review current law and recommend appropriate changes.

Thank you again for the opportunity to comment on HB 1338. If you have any questions or require further information, please contact either Chris Skoglund, Climate and Energy Program Manager, Air Resources Division (Christopher.Skoglund@des.nh.gov, 271-7624) or Rebecca Ohler, Administrator, Technical Services Bureau, Air Resources Division (Rebecca.Ohler@des.nh.gov, 271-6749).

Sincerely,



Robert R. Scott
Commissioner

cc: Representative P. Schmidt; Senator Watters

⁴ NH OEP (2014). New Hampshire 10-Year State Energy Strategy, New Hampshire Office of Energy & Planning, <https://www.nh.gov/osi/energy/programs/documents/energy-strategy.pdf>.

⁵ NH PUC (2017). Grid Modernization in New Hampshire: Report to the New Hampshire Public Utilities Commission, https://www.puc.nh.gov/Regulatory/Docketbk/2015/15-296/LETTERS-MEMOS-TARIFFS/15-296_2017-03-20_NH_GRID_MOD_GRP_FINAL_RPT.PDF

Bill as
Introduced

HB 1338 - AS INTRODUCED

2018 SESSION

18-2234
10/06

HOUSE BILL **1338**

AN ACT establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply.

SPONSORS: Rep. P. Schmidt, Straf. 19; Sen. Watters, Dist 4

COMMITTEE: Science, Technology and Energy

ANALYSIS

This bill establishes a committee to study the changes in law necessary to allow for microgrids in electricity supply.

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

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Eighteen

AN ACT establishing a committee to study the changes in law necessary to allow for microgrids in electricity supply.

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 the changes in law
2 necessary to allow for microgrids in electricity supply.

3 2 Membership and Compensation.

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

5 (a) Four members of the house of representatives, appointed by the speaker of the house
6 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 the changes in law necessary to allow for microgrids in
11 electricity supply.

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

16 5 Report. The committee shall report its findings and any recommendations for proposed
17 legislation to the speaker of the house of representatives, the president of the senate, the house
18 clerk, the senate clerk, the governor, and the state library on or before November 1, 2018.

19 6 Effective Date. This act shall take effect upon its passage.