From: Springer, Darren [Darren.Springer@vermont.gov]
Sent: Wednesday, March 18, 2015 2:02 PM
To: Kenneth Bruno; Hopkins, Asa
CC: Richard Westman
Subject: RE: H.40
Attachments: Energy Innovation Program 2 pager 1 21 15 FINAL.docx; SPEED Progam_H 40 Briefing Paper 2.9.15 FINAL DS.docx

Kenneth,

Attached is a 2 page summary of the Governor's Energy Innovation Program proposal which H. 40 builds upon, as well as a memo I provided to the House Natural Resources Committee during their hearings discussing the current SPEED program and the H. 40 legislation.

I may reference both during testimony on Friday.

Thanks,
Darren

Darren M. Springer, *Deputy Commissioner*
Vermont Public Service Department
112 State Street
Montpelier, VT 05620-2601
Darren.Springer@state.vt.us
(802) 828-3088

From: Kenneth Bruno [mailto:KBruno@leg.state.vt.us]
Sent: Wednesday, March 18, 2015 11:17 AM
To: Springer, Darren; Hopkins, Asa
Cc: Richard Westman
Subject: H.40

Would it be possible to get a 30 minute capsulized briefing on the transportation components of H.40 this Friday at 10:00 in Senate Transportation?

Kenneth Bruno
Legislative Committee Assistant
Senate Transportation: Room 3 : 802-828-2254
Senate Education: Room 28 : 802-828-3805
115 State Street
Montpelier, VT 05633
kbruno@leg.state.vt.us

ATTENTION- Please email handouts to the committee assistant before your scheduled meeting date and bring 10 hard copies. Please write your name, organization, date and title on each document.

With few exceptions, any documents a witness submits to a committee or to a committee assistant are open to the public.

In addition, a witness' submission of a document authored by the witness or his or her organization constitutes consent to its posting on the committee's webpage, unless the witness specifically requests that the document not be posted. Although the committee will honor requests not to post such documents on its webpage, once a witness submits a document to the committee, it is a public record and will be subject to public inspection and copying unless exempt under the Public Records Act.

Energy Innovation Program

The proposed Energy Innovation Program (EIP) would replace the current SPEED program. The EIP would run from 2017-2032.

It is designed to grow the share of Vermont's electricity consumption that comes from renewable energy sources, to support new community-scale distributed generation, and to promote innovative projects that reduce fossil fuel use and save Vermonters money.

The proposal includes three tiers:

- ***Total Renewable Electric Requirement***[1] – 55% of sales in 2017 rising to 75% by 2032. These numbers are already in law, but the EIP would make clear that the law requires renewable energy credit (tracking on NEPOOL GIS or equivalent) retention. All existing or new renewable electric sources qualify to meet this target.

- ***Distributed Generation*** – 1% of sales in 2017 rising to 10% by 2032. The proposal will include a distinct subset target for new community-scale distributed generation projects. Projects in-service starting mid-2015 would be eligible, and new net metering and Standard Offer projects would count if renewable energy credits are retired by the Vermont utility. As part of the Act 99 net metering redesign process, customers would have option of receiving incentive and providing renewable credits to meet DG tier, or keeping credits with incentive reduced by appropriate value.

- ***Energy Innovation Projects*** – 2% of sales (BTU equivalency) in 2017 rising to 12% in 2032. This tier sets targets for utility-led or utility-partnership projects that reduce customer fossil fuel consumption and save money, such as weatherization, biomass heat, cold-climate heat pumps, etc. Projects in-service in 2015 or later would count, and measurement and verification of the various measures would be done through a Public Service Board process. Projects only count in this tier if they are "additional" to those already happening through existing regulatory programs or state funding. Utilities would have four primary tools to meet this tier: Leasing programs; On-bill financing; marketing partnerships; and direct investments.

---

[1] The EIP also includes a Renewable Energy Achievement provision to recognize that some utilities have gone above and beyond in procuring renewable generation under the SPEED program. For eligible utilities, the provision would require 100% renewable electricity to be provided each year through Tier 1, and except for accepting new net metering would not require additional power procurement through the DG Tier.

Importantly, Public Service Department modeling shows that through smart and coordinated program design, the EIP as a policy over its lifetime would offer a net benefit for ratepayers. This is accomplished through flexible program design, by retaining Vermont's ability to sell renewable energy credits into regional markets to benefit ratepayers, and through strategic electrification initiatives from Energy Innovation Projects such as cold-climate heat pumps. The positive economic benefits of the EIP contrasts with a potential rate risk from maintaining the status quo amidst concerns about Vermont's ability to continue to sell renewable energy credits into the regional market under the current SPEED program.

	Rate Impact		
	2017	2024	2032
Current policy risk	+6.0%		
Renewable Portfolio Std.	+1.0%	+2.5%	+3.9%
Energy Innovation Program	+0.4%	+0.5%	-0.6%

Public Service Department modeling also projects the EIP could:

- Create over 1,000 new jobs;
- Add over 400 megawatts of new distributed generation;
- Provide weatherization or cold-climate heat pumps to over 85,000 homes and businesses;
- Support thousands of new biomass or bioheat systems;
- Save Vermonters a net of $275 million on energy bills; and
- Cut greenhouse gas emissions by approximately 15 million metric tons by 2032, on track to achieve a quarter of the emission reduction needed for Vermont's 2050 goal;

The Department is very pleased to be able to present this policy proposal to legislators and the public, and looks forward to its consideration during the legislative session.

112 STATE STREET
MONTPELIER, VT 05620-2601

TEL: (802) 828-2811
FAX: (802) 828-2342

VERMONT
PUBLIC SERVICE DEPARTMENT

MEMORANDUM

To: Members of the House Committee on Natural Resources and Energy

From: Darren Springer, Deputy Commissioner, Public Service Department

Date: February 9, 2015

Re: SPEED Program/H.40 briefing paper

Vermont's SPEED program is our primary renewable energy deployment program, enacted to support the development of new renewable energy projects in Vermont. SPEED relied on a requirement that utilities sign long-term contracts for renewable power, providing critical support for project development. The SPEED goal is for Vermont utilities cumulatively by 2017 to provide 20% of our power through SPEED contracts.

However, unlike our neighboring 5 states in New England, and the majority of states across the nation, Vermont does not require the ownership and retirement of renewable energy credits (RECs) through the SPEED program. That leaves utilities free to sell the RECs from their SPEED projects into the regional market, and they currently derive roughly $50 million annually in revenue from these sales, which is equivalent statewide to an approximate 6% rate benefit.

It is worth noting that when a renewable energy project comes online it provides three distinct attributes: energy in the form of megawatt hours, capacity in the form of its ability to produce megawatt hours during periods of peak load, and RECs which are the environmental benefits associated with a megawatt hour of renewable energy. These attributes can be provided bundled in a package to the market, or sold separately. In a state that has a Renewable Portfolio Standard (RPS), the requirement for the utilities is to own a certain amount of RECs (not energy or capacity) equivalent to some percentage of their energy portfolio. RECs are how we typically account for renewable megawatt hours, since we cannot physically track renewable electrons on the grid. SPEED, on the other hand, is an energy requirement (20% of Vermont's retail sales must come from SPEED projects by 2017), not a REC requirement.

The SPEED program has helped get projects built while also minimizing impacts to ratepayers by allowing the sale of RECs. However it was always intended to expire in 2017, making it timely for Vermont policymakers to discuss what comes next. The Legislature asked the Department to analyze the transition from SPEED to a new renewable program as part of the Act 99 Net Metering legislation passed in 2014. In addition some concerns have been raised in the regional market context about the compatibility of SPEED with neighboring state renewable programs.

The good news is that the H. 40 policy approach preserves the ratepayer benefits of REC sales from existing projects while phasing in new renewable energy targets that offer flexibility and help Vermont reach statutory energy and carbon goals. H. 40 has several key elements:

1. **Transition from SPEED:** H. 40 completes a transition from the SPEED program goals to a new program more in harmony with the rest of the region, and by doing so helps address regional market concerns regarding the compatibility of SPEED. Although Vermont utilities would be required to retire a certain amount of RECs, H.40 would not require all RECs from renewable resources owned or under contract to Vermont utilities be retired.;

2. **Set New Renewable Electric Targets:** It sets up a new Tier 1 overall renewable electric target, building on existing law, of 55% total renewable electricity for Vermont utilities, rising to 75% by 2032. By counting all resources, big and small, new and existing, and setting the price cap (alternative compliance payment) at 1 cent per kilowatt hour, this Tier keeps costs low;

3. **Establish New In-State Distributed Generation Tier:** It sets up a Tier 2 to support new, in-state, distributed generation renewable projects 5 megawatts or less. This Tier supports projects that qualify as customer-sited net metering, as well as Standard Offer projects that are typically the somewhat larger solar projects. Tier 2 provides support for Vermont's growing clean energy industry, which according to a 2014 Clean Energy Development Fund report already provides 15,000 jobs. Tier 2 also helps reduce our need for costly transmission build-out by siting more generation near customer load. VELCO, our statewide transmission utility, has already found that distributed generation and energy efficiency have avoided $400 million in new transmission project costs just in the last few years, saving money for ratepayers; and

4. **Create Program for Innovative Utility-led Projects that Save Customers Money:** It sets up a new and truly innovative Tier 3 to support energy transformation projects. Building off existing utility efforts including Green Mountain Power's heat pump lease program, Washington Electric's solar hot water discount, Burlington Electric and Stowe Electric's electric vehicle charging station investments, and many other examples, Tier 3 asks utilities to help save their customers money by reducing fossil fuel consumption. Utilities have different tools to bring to the table, including leasing programs, on-bill repayment options for financing, marketing partnerships, and direct investment. This Tier, done correctly, will help deploy new efficient cold-climate heat pumps and electric vehicles that provide more sales for utilities while advancing state energy and climate policy and supporting clean energy jobs. Coupled with demand management strategies these projects can avoid driving up peak demand. If we sell

more kilowatt hours using the same infrastructure (poles, wires, generation) and same fixed costs we have now, rates come down per unit of energy sold. Tier 3 savings allow the proposal as a whole to save customers a net of $275 million and are the main reason why the Department's rate analysis shows that H. 40 would, over the long-term, have a modest net benefit for ratepayers.

H. 40 would, in addition to the benefits mentioned, make Vermont's biggest strides yet toward reaching the 2050 statutory carbon reduction goal. H. 40 would achieve roughly 25% of the carbon reduction needed to reach our 2050 targets. At the same time the Regional Economic Models Inc. (REMI) projection shows that H. 40 would help the economy add over 1,000 new jobs during the course of the program. Without hyperbole, this legislation would be good for the economy and the environment.