



STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

DOCKET DE 17-136

IN THE MATTER OF: 2018-2020 New Hampshire Statewide Energy Efficiency
Plan.

DIRECT TESTIMONY

OF

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November 01, 2017

1 **INTRODUCTION AND QUALIFICATIONS**

2 **Q. Mr. Dudley, please state your full name and business address.**

3 A. My name is Jay E. Dudley. My business address is 21 South Fruit Street, Suite 10, Concord,
4 NH 03301.

5 **Q. Please state your employer and your position.**

6 A. I am employed by the New Hampshire Public Utilities Commission (“Commission”) as a
7 Utility Analyst for the Electric Division.

8 **Q. Please describe your professional background.**

9 A. I started at the Commission in June of 2015 as a Utility Analyst in the Electric Division.
10 Before joining the Commission, I was employed at the Vermont Public Service Board, now
11 known as the Vermont Public Utilities Commission (“VTPUC”), for seven years as a Utility
12 Analyst and Hearing Officer. In that position I was primarily responsible for the analysis of
13 financing and accounting order requests filed by all Vermont utilities, including review of
14 auditor’s reports, financial projections, and securities analysis. As Hearing Officer, I
15 managed and adjudicated cases involving a broad range of utility-related issues including rate
16 investigations, energy efficiency, consumer complaints, utility finance, construction projects,
17 condemnations, and telecommunications. Prior to working for the VTPUC, I worked in the
18 commercial banking sector in Vermont for twenty years where I held various management
19 and administrative positions. My most recent role was as Vice President and Chief Credit
20 Officer for Lyndon Bank in Lyndonville, Vermont. In that position I was responsible for
21 directing and administering the analysis and credit risk management of the bank’s loan

1 portfolio, including internal loan review, regulatory compliance, and audit. In performing
2 those responsibilities, I also provided oversight for the commercial and retail lending
3 functions with detailed financial analysis of large corporate relationships, critique of loan
4 proposals and loan structuring, consultation on business development efforts, and advised the
5 Board of Directors on loan approvals and loan portfolio quality. Prior to my role as Chief
6 Credit Officer, I held the position of Vice President of Loan Administration. In this position,
7 I was responsible for directing and administering the underwriting, processing, and funding
8 of all commercial, consumer, and residential mortgage loans. My responsibilities also
9 included the management of loan processing and loan origination staff and partnering with
10 the Compliance Officer to monitor and ensure compliance with all banking laws, regulations,
11 and the bank's lending policy. Previous to my position as Loan Administration Vice
12 President, I held the position of Assistant Vice President of Commercial Loan Administration
13 with Passumpsic Savings Bank in St. Johnsbury, Vermont. In that role, I was responsible for
14 supervising loan administration and loan operations within the commercial lending division
15 of the bank.

16 **Q. Please describe your educational background?**

17 A. I received my Bachelor of Arts degree in Political Science from St. Michael's College.
18 Throughout my career in banking, I took advantage of numerous CPE opportunities
19 involving college level coursework in the areas of accounting, financial analysis, real estate
20 and banking law, economics, and regulatory compliance. Also, during my tenure with the
21 VTPUC I took advantage of various CPE opportunities including the Regulatory Studies
22 Program at Michigan State University (sponsored by the National Association of Regulatory

1 Utility Commissioners “NARUC”), and Utility Finance & Accounting for Financial
2 Professionals at the Financial Accounting Institute.

3 **Q. Have you previously testified before the Commission?**

4 A. Yes. I previously submitted Staff testimony to the Commission in Docket No. DE 14-238,
5 Docket No. DE 15-137, and Docket No. DE 16-383.

6 **SUMMARY OF TESTIMONY**

7 **Q. Please describe the purpose of your testimony today.**

8 A. The purpose of my testimony is to provide Staff’s findings and recommendations involving
9 the New Hampshire Statewide Energy Efficiency Plan (the “Plan”) filed by the New
10 Hampshire Utilities (“NH Utilities” or “Utilities”) on September 1, 2017, specifically Section
11 8 of the Plan “NHSaves Financing Options,” outlining the Utilities’ joint vision for scaling
12 up delivery of energy efficiency programs and savings to customers through various
13 financing choices offered during the 2018-2020 Plan period. Based on the Plan and other
14 information filed by the Utilities with the Commission, Staff is concerned that the Utilities
15 have adopted a steady-state approach in terms of the various financing options available to
16 customers under the Plan, and that such an approach is insufficient and falls short of
17 providing for future growth in this sector.

18 **STAFF’S REVIEW OF “FINANCING OPTIONS” SECTION**

19 **Q. What specific areas of concern did Staff find during the course of its review of Section 8**
20 **of the Plan?**

1 A. First, Staff has concerns that the Utilities have embraced a position that involves over-
2 reliance on ratepayer funding of energy efficiency programs in the form of the System
3 Benefits Charge (“SBC”) for electric and the Local Distribution Adjustment Charge (LDAC)
4 for gas, and have made only limited attempts at examining or increasing the involvement of
5 private financing as a viable means of scaling up energy efficiency adoption in the New
6 Hampshire marketplace.¹ Although Section 8 of the proposed Plan alludes to the prospect of
7 considering “additional lenders” and mentions “other financing options,” the Plan does not
8 elaborate on those efforts, if any, and does not provide a specific outline or vision for
9 expanding the role of private investment and financing in energy efficiency programs. In
10 particular, Staff’s concerns revolve around the commercial and industrial sector (“C&I”)
11 where expansive growth opportunities appear to exist and could be realized by increasing the
12 involvement of private financing. This area of Staff’s testimony will be covered in greater
13 detail by Les Stachow.

14 **Q. You refer above to the NH Utilities’ “over-reliance” on the SBC as a funding source of**
15 **energy efficiency. Why should this concern Staff?**

16 A. Staff believes that continuing to rely primarily on ratepayer funding for energy efficiency
17 measures and programs is not a viable long term option for increasing growth in energy
18 efficiency in New Hampshire. National studies have shown that ratepayer funding provides
19 only a small portion of the total investment needed to scale up adoption of energy efficiency
20 measures.² As a result, increasing reliance on consumer financing programs as opposed to

¹ 2018-2020 New Hampshire Statewide Energy Efficiency Plan at Bates 150.

² *Energy Efficiency Financing Program Implementation Primer*, State and Local Energy Efficiency Action Network (SEE Action), January 2014, at 1.

1 ratepayer funding should be the emphasis of program administrators. In addition, continued
2 increases in the SBC and LDAC are not sustainable and could potentially reach a level of
3 resistance from ratepayers, concerned interest groups, and policy makers, especially if there
4 is upward pressure on electric and gas rates in the future. This funding source is also
5 potentially subject to future modifications, reductions, or even repeal by the state
6 government.

7 **Q. How would increasing the involvement of private sector financing sources spur growth**
8 **in energy efficiency in New Hampshire?**

9 A. The potential for private investment in energy efficiency (and renewables) in New
10 Hampshire was examined by the Union of Concerned Scientists (“UCS”) in a recently
11 published report on expanding private-sector investment in the state and found that New
12 Hampshire could leverage an initial capitalization of \$14 million into a \$300 million
13 investment in energy efficiency and renewable energy projects over the next 15 years.³ In
14 terms of energy efficiency, such an investment could save New Hampshire homes and
15 businesses \$40.3 million on their annual electric bills.⁴ According to the report, the basic
16 approach is to leverage a pool of public-sector funds so as to acquire a larger pool of private
17 sector investments in energy efficiency and renewables. New York, Connecticut, and Rhode
18 Island are already making the transition from government incentives to financial products
19 funded with private sector capital. Connecticut and New York are currently achieving
20 leverage ratios of \$5 of private funds to every \$1 of public funds across their programs.⁵

³ *Financing Clean Energy A Powerful Tool for Driving Investment in New Hampshire’s Economy*, Union of Concerned Scientists, December 2016 at 1.

⁴ *Id.*

⁵ *Id.*

1 Additional enhancements can also be achieved by utilizing public funds to structure a loan
2 loss reserve fund or a revolving loan fund. As noted above, a more detailed discussion of
3 this subject is included in the testimony of Les Stachow.

4 **DISCUSSION OF CURRENT FUNDING AND FINANCING PROGRAMS**

5 **Q. How are the current NHSaves® programs funded?**

6 A. The NHSaves® Programs are funded through three main sources: 1) a portion of the System
7 Benefits Charge (SBC) which is applied to the electric bills of all customers receiving
8 delivery service through one of the NH Utilities; 2) a portion of the Regional Greenhouse
9 Gas Initiative (RGGI) auction proceeds subject to certain conditions; and 3) proceeds
10 obtained by each of the NH Utilities from ISO-NE for participation in ISO-NE's Forward
11 Capacity Market (FCM). In addition, any unspent funds from prior program years are carried
12 forward to future years, including interest at the prime rate. A brief description of each
13 funding source follows:⁶

- 14 • System Benefits Charge: The SBC is collected through a surcharge on utility customer
15 bills at a rate of \$0.00198 cents per kWh. Revenue from the SBC is divided between the
16 regulated energy efficiency programs and an Electric Assistance Program (“EAP”),
17 which helps low income customers pay their electric bills. The SBC is one of six
18 itemized charges on a typical New Hampshire electric ratepayer's utility bill. The other
19 charges are for delivery, customer service, stranded cost recovery, the energy itself, and
20 an electricity consumption tax. Beginning in 2017, and continuing into the three-year
21 period under the proposed Plan, the SBC will also include an adjustment for Lost Base

⁶See Docket No DE 14-216, Settlement Agreement dated 12/12/2016, Attachment B at Bates 79-80.

1 Revenue (“LBR”), in addition to EAP, pursuant to the Commission’s Order No. 25,976
2 in Docket DE 14-216 dated December 23, 2016. Under that Order, the Utilities
3 incorporated their own LBR component as part of the SBC for 2017 over and above the
4 electric efficiency portion of \$0.00198 per kWh as follows:⁷

| <u>Utility</u> | <u>LBR Component</u> |
|---------------------|----------------------|
| ○ Liberty Utilities | \$0.00006/kWh |
| ○ NH Electric Coop* | \$0.00/kWh |
| ○ Eversource | \$0.00008/kWh |
| ○ Unitil | \$0.00009/kWh |

10 *NH Electric Coop does not include an LBR component.

11 Under the proposed Plan, future increases to the SBC have been projected and included
12 by the Utilities over the three-year Plan period.⁸ For 2018, the proposed energy
13 efficiency portion will increase to \$0.00275 per kWh.⁹

- 14 • Regional Greenhouse Gas Initiative: New Hampshire participates in the Regional
15 Greenhouse Gas Initiative (RGGI), proceeds from which are allocated to the NH Electric
16 Utilities for funding the Home Energy Assistance Program and municipal and local
17 government energy efficiency projects, including projects by local governments that have
18 their own municipal utilities. The Plan projects this source of funding for energy
19 efficiency to remain approximately level at \$2.5 million over the three-year plan period.¹⁰
- 20 • ISO-NE’s Forward Capacity Market: The NHSaves® programs also receive revenue
21 from the regulated utilities’ participation in the ISO New England Forward Capacity

⁷*Id.* at Bates 195, 233, 236, and 245.

⁸ 2018-2020 New Hampshire Statewide Energy Efficiency Plan at Bates 31.

⁹ *Id.* at Bates 30.

¹⁰ *Id.* at Bates 31.

1 Market (“FCM”). By bidding peak demand savings realized from the energy efficiency
2 programs into the FCM, the NH Electric Utilities bring additional funds into the energy
3 efficiency programs. Funds from the FCM have risen from approximately \$2.4 million in
4 2015 to approximately \$4.3 million in 2017, and the Plan projects modest growth in
5 revenues over the three-year Plan period to approximately \$6.9 million as demand savings
6 from the programs increase.¹¹

7 The NHSaves® Gas Energy Efficiency Programs are funded by a portion of the Local
8 Distribution Adjustment Charge (LDAC), which is applied to the gas bills of all customers
9 receiving service through one of the NH Gas Utilities. Similar to the electric programs, any
10 unspent funds from prior program years are carried forward to future years, including interest
11 earned at the prime rate.

12 **Q. What are the current estimates for total EE funding from these sources under the Plan?**

13 A. Below is a summary of the estimated program funding for the 2018-2020 Plan period for the
14 electric and gas utilities:¹²

| | <u>2018</u> | <u>2019</u> | <u>2020</u> |
|--------------------|--------------------|---------------------|---------------------|
| 15 Electric | \$38,635,000 | \$49,488,000 | \$66,019,000 |
| 17 Gas | <u>\$9,457,000</u> | <u>\$10,508,000</u> | <u>\$11,432,000</u> |
| 18 Total | \$48,092,000 | \$59,996,000 | \$77,451,000 |

19 **Q. What financing options are currently available to NH participants to augment the**
20 **limited availability of public funding under the SBC?**

21 A. The NH Electric Utilities currently offer financing of energy efficiency in the following
22 areas:

¹¹ *Id.* at Bates 31 and 150.

¹² *Id.* at 31-32.

1 **Third-Party Financing**

2 The NH Electric Utilities offer a third party financing option through the Residential Energy
3 Efficiency Loan Program in partnership with local financial institutions. The program
4 reduces the customer’s interest rate (buy-down) for unsecured loans from an average of 6.46
5 percent to 2 percent for qualified measures. Loans can range from \$1,000 with a two-year
6 term up to \$15,000 with a 7-year term.¹³ The NH Utilities approve eligible projects through
7 utilization of a uniform Loan Authorization Form so that customers and lenders can be
8 assured that the project qualifies for the 2 percent rate. All participating Home Performance
9 with ENERGY STAR (“HPwES”) customers have access to the 2 percent loan for financing
10 their co-pay portion. While the NH Utilities determine the energy efficiency measures that
11 qualify for the third-party financing option, the lender will process and service the loan. The
12 lender assumes the risk if a customer defaults on its unsecured loan. Currently, there are five
13 lenders participating in the program, they are: Granite State Credit Union, Merrimack
14 Savings Bank, Meredith Village Savings Bank, Northeast Credit Union, Woodsville
15 Guaranty Savings Bank.¹⁴

16 **On-bill Financing**

17 The NH Electric Utilities offer on-bill financing for residential customers participating in the
18 HPwES program. These on-bill offerings are currently offered at a zero percent interest rate
19 for customer loans of \$2,000 or less. The NH Electric Utilities propose to continue to offer
20 small on-bill loans at a zero percent interest rate during the 2018-2020 Plan period. The

¹³ *Id.* at Bates 135.

¹⁴ *Id.* at Bates 134.

1 maximum amount for on-bill financing may be adjusted by individual utilities depending on
2 their circumstances.¹⁵

3 **Municipal Financing**

4 The NH Utilities all offer either Smart Start or on-bill financing for municipalities. Under
5 the Smart Start financing offered by Eversource and the NH Electric Coop, the utilities pay
6 all costs associated with the purchase and installation of approved measures. The
7 municipality reimburses the Company through charges added to the customer's regular
8 monthly electric bill (the NH Electric Coop designates the charge as a Smart Start Delivery
9 Charge). The monthly charges are calculated to be less than or equal to the customer's
10 estimated monthly energy savings, which is added to the monthly electric bill until all costs
11 are repaid. Liberty and Unitil offer zero percent on-bill financing to municipalities under a
12 revolving loan program, pursuant to a grant award from the Greenhouse Gas Emissions
13 Reduction Fund, whereby the utilities pay all costs associated with the purchase and
14 installation of the approved measures up to the incentive amount plus a loan amount not to
15 exceed \$50,000 per measure. Customers pay for their portion over time on their electric
16 bills.

17 **Commercial Financing**

18 Liberty, Unitil, and the NH Electric Coop currently offer their existing municipal energy efficiency
19 financing options to business customers.¹⁶

20 **Q. Is Staff satisfied that the current financing options offered by the NH Utilities and**
21 **outlined in the Plan are sufficient in scaling up adoption of energy efficiency measures**
22 **and growing energy efficiency programs in New Hampshire?**

¹⁵ *Id.* at Bates 136.

¹⁶ *Id.* at Bates 137.

1 A. No. Rather than being oriented towards using financing to promote growth in energy
2 efficiency, the Plan appears to be oriented towards maintaining the status quo. This is not to
3 say that the Utilities have not been effective in providing energy efficiency financing within
4 their respective service territories. Staff acknowledges that the NH Utilities have
5 experienced success in recent years by offering multiple financing programs across all
6 market sectors, as described above, while also structuring programs that have attracted
7 private capital from local financial institutions which has greatly facilitated access to
8 financing for energy efficiency projects. However, in Docket DE 15-137, Staff provided
9 testimony outlining other financing alternatives that the Utilities should consider to increase
10 loan volumes and expand energy efficiency financing. It appears that none of those
11 recommendations were considered or explored by the Utilities and none are referenced in the
12 proposed Plan. To recap, those alternatives are as follows:

- 13 • Warehouse for Energy Efficiency Loans (WHEEL): The Energy Programs Consortium
14 (EPC) began the Warehouse for Energy Efficiency Loans (WHEEL) project with the
15 Pennsylvania Treasury in 2009 after the passage of the American Recovery and
16 Reinvestment Act (ARRA). The purpose of WHEEL is to provide low cost, large scale
17 capital for state and local government and utility-sponsored residential energy efficiency
18 loan programs. EPC designed WHEEL in partnership with Pennsylvania Treasury, the
19 National Association of State Energy Officials (NASEO), Renew Financial, and
20 Citigroup to provide a turnkey financing solution that can be tailored to the needs of a
21 particular state or local government. WHEEL's objective is the establishment of a
22 secondary market for residential clean energy loans thus providing greater volume and
23 lower cost of capital to state and local energy loan programs. WHEEL facilitates

1 secondary market sales by purchasing unsecured residential energy efficiency loans
2 originated in participating programs. The loans are aggregated into diversified pools and
3 used to support the issuance of rated asset-backed notes sold to capital markets
4 investors. Proceeds from these note sales will be used to recapitalize WHEEL, allowing
5 it to continue purchasing eligible loans from state and local programs for future rounds
6 of bond issuance. The minimum loan size is currently \$2,500 and the maximum
7 \$20,000. The first securitization of WHEEL loans took place in June 2015, including
8 loans from Pennsylvania, Kentucky and Ohio. New states are joining every month.
9 Florida and New York launched WHEEL programs in the fall of 2015. Other states in
10 the development stages include: Indiana, Missouri and Virginia.¹⁷

- 11 • Energy Efficiency Conservation Loan Program and the Rural Energy Savings Program:
12 These programs are sponsored by the United States Department of Agriculture Rural
13 Utilities Service (“RUS”). The Energy Efficiency and Conservation Loan Program
14 (EECLP) provides loans to finance energy efficiency and conservation projects for
15 commercial, industrial, and residential consumers. With the EECLP, eligible utilities,
16 including existing Rural Utilities Service borrowers can borrow money tied to Treasury
17 rates of interest and re-lend the money to develop new and diverse energy service
18 products within their service territories. For instance, utility borrowers could set up on-
19 bill financing programs whereby customers in their service territories implement energy
20 efficiency measures behind the meter and repay the loan to the distribution utility
21 through their electric bills. Loans under the EECLP are available to those utility

¹⁷ <http://www.energyprograms.org/programs/wheel/>

1 systems that have direct or indirect responsibility for providing retail electric service to
2 persons in a rural area. In general, a rural area for EECLP purposes is a town, or
3 unincorporated area that has a population not greater than 20,000 inhabitants, and any
4 area within a service area of a borrower for which a borrower has an outstanding loan.
5 Eligible communities can be combined into service territories that exceed 20,000. The
6 maximum term for loans under the EECLP is 15 years, unless the funding relates to
7 ground-source loop investments or technology on an aggregate basis with a useful life
8 greater than 15 years. In addition, the Rural Energy Savings Program (“RESP”)
9 provides funds for lending that is focused on low-income, high-energy cost
10 communities. Loans under this program carry a zero interest rate and are dedicated to
11 energy efficiency upgrades. In fiscal year 2016, the RESP provided \$52 million in
12 funding.¹⁸

- 13 • Fannie Mae “Green Financing”: The Fannie Mae Multifamily Green Financing Program,
14 consisting of Green Rewards, Green Building Certification, and Green Preservation
15 Plus, provide mortgage financing to apartment buildings, cooperatives, and multifamily
16 housing developments to finance energy and water efficiency property improvements.
17 In addition to offering flexible first mortgage underwriting terms and additional loan
18 proceeds for such improvements, the programs also offer price breaks on mortgage
19 interest rates for properties that meet certain specified green building certifications.
20 These programs reduce interest rates by up to 39 basis points, and some loans provide a
21 free energy and water audit. Fannie Mae also offers price breaks for supplemental

¹⁸ For additional information on program requirements, please see: www.rd.usda.gov/programs-services/energy-efficiency-and-conservation-loan-program .

1 financing which allows property owners to make additional energy efficiency
2 improvements after closing on their first mortgage loan. The Green Financing Program
3 provided \$3.6 billion in funding in 2016.¹⁹ Although not included as part of Staff's
4 original recommendations in Docket No. DE 15-137, Staff believes these programs have
5 great potential, especially in the affordable and moderate income sectors, and should be
6 given serious consideration by the Utilities since most of their local banking partners are
7 likely to be Fannie Mae-approved lenders.

- 8 • Rural Energy for America Program Renewable Energy: Like EECLP and RESP
9 referenced above, the Rural Energy for America Program Renewable Energy program is
10 administered by the USDA but is separate from the RUS. This program provides
11 guaranteed loan financing and grant funding to agricultural producers and rural small
12 businesses to make energy efficiency improvements and to purchase or install renewable
13 energy systems. Qualifying energy efficiency improvements can include high efficiency
14 HVAC systems, insulation, lighting, cooling and refrigeration, doors and windows, and
15 many other upgrades or projects. Loan guarantees are available up to 75 percent of total
16 eligible project costs and grant funding is available up to 25 percent of eligible costs.
17 Both loan guarantees and grants may be combined for funding up to 75 percent. The
18 minimum loan amount under the program is \$5,000 and the maximum as high as \$25
19 million. The maximum term is 30 years for real estate and 15 years for machinery and
20 equipment.²⁰ As with Fannie Mae's Green Financing programs mentioned above, Staff

¹⁹ See www.fanniemaegreeninitiative.com for more information.

²⁰ See <https://www.rd.usda.gov/programs-services/rural-energy-america-program-renewable-energy-systems-energy-efficiency> for more information.

1 assumes that some of the Utilities' local banking partners are likely to be Rural
2 Development-approved lenders that can take advantage of this program as an additional
3 enhancement for energy efficiency financing.

4 Staff continues to believe that the Utilities, in their role as the program administrators, should
5 be more proactive in seeking out and exploring these alternative financing programs.

6 **Q. Please expand upon Staff's concerns about the current Utility financing options.**

7 A. Staff believes that the following enhancements should also have been considered under the
8 Plan:

- 9 • Establishment of a loan loss reserve fund ("LLR"): The Plan does not consider or discuss
10 the potential benefits of leveraging public funds in order to structure a loan loss reserve,
11 with one of the most notable benefits being mitigation of a lender's risk of default.
12 Currently, all of the Utilities' lending partners assume all of the risk associated with
13 non-payment of loans. Establishing such a fund could attract additional private lenders
14 to enter the EE market. This subject area is covered in greater detail by Mr. Stachow.
- 15 • Loan amount: Maximum loan amounts currently available under the Utilities' financing
16 options are limited to \$10,000 for the ENERGY STAR program, \$15,000 for third-party
17 loans, and \$2,000 for on-bill financing. By taking advantage of some of the alternative
18 programs mentioned above, combined with credit enhancements such a LLR and loan
19 securitization/secondary market options, more private capital sources could be
20 persuaded to participate thus increasing funds availability, loan amounts, project size,
21 and the overall reach of EE financing.
- 22 • Supplement current on-bill financing with private funding: The Utilities should consider
23 complimenting the current on-bill financing ("OBF") programs with a new set of on-bill

1 repayment (“OBR”) pilot programs funded with private capital and targeting both
2 residential and non-residential customers. OBR programs are those funded by non-
3 utility, private funding as opposed to OBF programs that exclusively use ratepayer
4 funds. Like the OBF programs, OBR programs rely on the same propensity of
5 ratepayers to consistently pay their bills. That is, consumers typically have extensive
6 experience making utility bill payments, it is already a routine part of their lives; and it
7 is also conceptually attractive to make an investment where the energy savings that
8 result are reflected in the same bill as the payments on the loan that funded the
9 investment.²¹

10 OBR programs are typically sub-divided into three basic models:²² warehousing, up-front
11 private capital, and open market. Under the warehousing model, a program administrator
12 uses utility shareholder, utility bill-payer and/or public capital to initially fund loans (Phase
13 One). They then aggregate these loans and sell them to a second investor or investors (Phase
14 Two), often providing a credit enhancement to support the sale. In the up-front model,
15 program administrators opt to raise capital from private investors up-front, rather than
16 initially funding loans with utility shareholder, ratepayer, or public capital (Phase 1). The
17 program administrator then issues a bond (or other financial contract) and investors provide
18 capital that is used to fund participant on-bill loans (Phase 2). Under the open market model,
19 one or more financial institutions underwrite individual consumers and deliver the financial
20 products directly to them. Any qualified financial institution may participate, allowing them
21 to use the utility bill for repayment. This model avoids utility involvement in capital

²¹ *Financing Energy Improvements on Utility Bills: Market Updates and Key Program Design Considerations for Policy Makers and Administrators*, State and Local Energy Efficiency Action Network (SEE Action), May 2014, at 25.

²² *Id.* at 15.

1 provision and encourages competition, driving financial institutions to innovate and to offer
2 more attractive (e.g., lower interest rate, longer term) and more accessible products. All
3 three program variations have the potential of delivering higher leverage of utility bill-payer
4 monies than the existing OBF programs.

- 5 • Data collection: During the course of its review of the Plan, the Vermont Energy
6 Investment Corporation (“VEIC”) observed that the NH Utilities are not collecting data
7 for the purposes of generating “financing program-specific performance reports or
8 evaluation studies.”²³ The Plan is silent on this subject. VEIC went on to report that
9 “The absence of detailed performance and evaluation data makes it difficult to determine
10 if the financing programs in their current form are meeting the market needs and
11 demands, and it is not possible to assess their cost-effectiveness or long-term
12 sustainability.”²⁴ Staff shares this concern since the absence of performance data also
13 negatively impacts the prospect for private investment since investors tend to assume
14 that lending risk is high in the EE sector thus requiring stricter underwriting, higher
15 interest rates, and shorter terms.²⁵

16 **TRANSITIONING TO PRIVATE FINANCING**

17 **Q. Why seek out private sector funding?**

18 A. As Staff pointed out previously in its testimony in Docket DE 15-137, national estimates of
19 the total opportunity for investment in cost effective energy efficiency in the US typically can

²³ *Section 5.0 NHSaves Financing Options – Part 2*, VEIC Review of 2018-2020 NH Statewide Energy Efficiency Plan, Brian Pine, July 11, 2017 at 4.

²⁴ *Id.*

²⁵ *Using Financing to Scale Up Energy Efficiency*, State and Local Energy Efficiency Action Network (SEE Action), July 2013, at 29.

1 be found in the range of several hundred billion dollars.²⁶ Many state policymakers and
2 utility regulators are seeking to establish ever higher energy efficiency savings targets in
3 order to address this potential. Reaching these targets will necessitate investing billions of
4 dollars—and taxpayer and utility ratepayer funding is a small fraction of the total investment
5 needed. In the face of this funding gap, many energy efficiency program administrators are
6 seeking to increase their reliance on customer financing with the aim of amplifying the
7 impact of limited program monies.²⁷ The high first costs of energy efficiency have been one
8 impetus for utilities, states, and local governments to offer program-supported financing for
9 customers to pay for energy efficiency improvements. This focus on financing is also driven
10 by a desire to encourage substantial cost contributions by participating customers that are
11 investing in energy improvements, in order to stretch the impacts of limited taxpayer and
12 ratepayer funding, and to minimize bill impacts for utility ratepayers.²⁸ Consequently, access
13 to private capital sources will be necessary in order to augment the funds available for
14 increasing levels of investment.

15 **Q. Does that conclude your testimony?**

16 A. Yes it does.

²⁶ Choi Grande, H., Creyts, J., Derkach, A., Farese, P., Nyquist, S., & Ostrowski, K. (2009) *Unlocking Energy Efficiency in the US Economy*. McKinsey & Company. Fulton M., & Brandenburg, M., (2012) *United States Building Energy Efficiency Retrofits: Market Sizing and Financing Models*. The Rockefeller Foundation and DB Climate Change Advisors.

²⁷ *Energy Efficiency Financing Program Implementation Primer*, State and Local Energy Efficiency Action Network (SEE Action), January 2014, at 1.

²⁸ *Id.* at 3.