

**STATE OF NEW HAMPSHIRE**

**BEFORE THE**

**PUBLIC UTILITIES COMMISSION**

**DOCKET NO. DE 23-068**

**2024-2026 TRIENNIAL ENERGY EFFICIENCY PLAN**

**TESTIMONY OF**

**CHRISTOPHER J. SKOGLUND**

**ON BEHALF OF CLEAN ENERGY NEW HAMPSHIRE**

**SEPTEMBER 12, 2023**

**Table of Contents**

**I. Introduction..... 1**

**II. Overview and Summary..... 4**

**III. Energy, Economic, and Environmental Benefits ..... 5**

**IV. Recommendations..... 15**

**V. Conclusion ..... 16**

**Addendum CS-1 ..... 17**

1 **I. Introduction**

2 **Q. Mr. Skoglund, please state your name, business address and position.**

3 A. My name is Christopher J. Skoglund. I am employed by Clean Energy New Hampshire (CENH),  
4 located at 14 Dixon Ave in Concord NH, as the Director of Energy Transition. Included in this testimony  
5 is Addendum CS-1, a statement of my education and work experience.

6

7 **Q. Please briefly describe your experience and specific knowledge or skills that relate to your**  
8 **testimony in this docket.**

9 A. I have been employed by CENH as the Director of Energy Transition since January 2022. In this role, I  
10 am the organization's lead on regulatory issues, including representing CENH at the NH Public Utilities  
11 Commission, while also providing support for legislative, planning, and educational initiatives. This work  
12 includes leading and coordinating stakeholder groups and initiatives across the transportation, building,  
13 and power generation sectors.

14

15 Prior to joining CENH at the beginning of 2022, I worked for the NH Department of Environmental  
16 Services (NHDES) from 2008 until the end of 2021. While working at NHDES, I was involved in  
17 planning, programs, and projects across the aforementioned sectors. My main role was the coordination of  
18 multi-sector planning and policy initiatives including the: 2009 NH Climate Action Plan; the 2012 EESE  
19 Board Review on the Independent Study of Energy Policy Issues ("SB 323 (2010) Study"); and the New  
20 England Governors/Eastern Canadian Premiers 2017 Regional Climate Action Plan Update. I worked  
21 with local, state, and regional stakeholders from public, private, and non-profit entities. In addition, I also  
22 regularly testified before the New Hampshire state legislature, and conducted energy, emissions, and  
23 economic analysis for NHDES and the State of New Hampshire, inclusive of the transportation, building,  
24 and power generation sectors.

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

2 A. Yes. I submitted testimony as both staff at NHDES and in my current role at CENH in the previous  
3 efficiency docket, DE 20-092, New Hampshire's Electric and Natural Gas Utilities 2021-2023 New  
4 Hampshire Statewide Energy Efficiency Plan. More recently, I submitted testimony on behalf of CENH  
5 in DE 20-166, the Eversource Least Cost Integrated Resource Plan, and DE 21-078, Eversource Electric  
6 Vehicle Make-Ready and Demand Charge Alternative Proposals.

7  
8 In addition, I submitted testimony in DE 19-057, Eversource Rate Case. I also provided significant input  
9 on NHDES' comments for IR 20-004, Investigation into Rate Design Standards for Electric Vehicle  
10 Charging Stations and Electric Vehicle Time of Day Rates, as well as NHDES's extensive letter of  
11 support for key elements of the DE 19-064, Liberty Utilities Rate Case Settlement Agreement. In  
12 addition, I was an intervenor in DE 21-170, EV Time of Use Rates, and was an active participant in the  
13 DE 16-576 Net Metering pilot studies, the IR 15-296 Investigation into Grid Modernization proceeding,  
14 and the DE 17-136 EERS working groups.

15

16 **Q. What perspective does CENH bring to this proceeding?**

17 A. CENH is a statewide non-profit organization dedicated to strengthening New Hampshire's economy  
18 by transitioning to an abundant, local, reliable, and clean energy system with lowest possible energy costs  
19 that benefits all NH citizens, local governments, and businesses. Enabling access to cost-effective energy  
20 efficiency is a key part of our path to ensuring a stable, local, affordable, clean energy supply for all New  
21 Hampshire residents, businesses, institutions, and municipalities.

22

23 As the state's leading clean energy experts, our business members include large employers including  
24 companies that have collectively installed hundreds of MW of clean energy in our state and across the

1 northeast. Our business members deliver clean low-cost energy that reduces consumer costs, increases  
2 business and consumer energy independence, and diversifies the state's energy supply. Our members also  
3 include a variety of hydro power companies, whose facilities have provided consistent, low-cost, clean  
4 energy to the local governments and businesses for decades. These facilities are a critical mix of our local  
5 and instate energy portfolio.

6  
7 CENH also has 36 municipal members, representing over 425,000 NH citizens, nearly one-third of the  
8 state's population. Our members also include dozens of businesses and manufacturers that are outside of  
9 the clean energy space, but who are significant energy end users. They are all looking for affordable,  
10 clean energy supplies, particularly at a time when energy prices are at historic highs and are expected to  
11 remain so, and volatility creates significant uncertainty for businesses.

12  
13 CENH also actively partners with state agencies, travel and tourism interests, chambers of commerce,  
14 regional planning commissions, as well as universities and workforce development entities across the  
15 state. In addition, all three of the state's investor-owned utilities are CENH members.

16  
17 What unites this diverse membership behind CENH is the recognition that clean energy technologies,  
18 including energy efficiency, strategic electrification, energy storage, and renewable energy technologies  
19 all present economic, energy, and environmental opportunities for the state as they are increasingly the  
20 least cost method to manage overall energy consumption and costs, while also providing reliability with  
21 public and environmental health benefits.

22  
23 As energy efficiency is the lowest cost energy resource, this docket is of significant interest and concern  
24 to our broad and diverse membership.

1 **II. Overview and Summary**

2 **Q. Please describe the purpose of your testimony, including an overview of your analyses and**  
3 **conclusions.**

4 A. The purpose of my testimony is to support the approval of the NH Utilities' 2024-2026 New  
5 Hampshire Statewide Energy Efficiency Plan ("the EE Plan"), noting that the plan provides economic,  
6 energy, and environmental benefits for the whole state, and that by definition, the program offerings in  
7 the plan are cost effective, means that they cost customers less than the cost of traditional energy supply.

8  
9 Approval of this edition of the EE Plan in particular is crucial as the energy efficiency workforce is still  
10 recovering from significant disruptions in 2021 and 2022, which caused the Legislature to intervene  
11 through HB549 of 2022 and SB113 of 2023 to ensure that the state's efficiency programs are stabilized  
12 and can provide important services to our residents and businesses. Approval of the EE Plan will provide  
13 the certainty that program administrators, contractors, and customers need to ensure that the programs are  
14 positioned to deliver further benefits in the years ahead. The NH electric and gas utility energy efficiency  
15 programs have won numerous awards for their effectiveness, and they have consistently provided a net  
16 economic benefit for all ratepayers, while enabling a transformation in the market.

17  
18 Energy efficiency is a building block for utility planning, and the utilities' filing of this joint-three-year  
19 plan is a critical part of the New Hampshire energy ecosystem. Increasingly, the solutions to energy  
20 system reliability, energy system costs, and environmental impacts intersect. For that reason, CENH has  
21 participated in energy efficiency program dockets for over a decade and has been intervening in numerous  
22 complementary PUC dockets. CENH's mission is to promote clean energy and technologies through  
23 education and advocacy for a stronger economic future for all Granite Staters. We also note, as discussed  
24 further on pages 11-13, as the Commission is aware, energy efficiency is a critical resource at the regional

1 level as well and is considered an important part of our supply mix by ISO New England, which operates  
2 our electric grid. The impact of demand reductions through energy efficiency and demand response  
3 translates into real savings for consumers in New Hampshire, and results in a reduction in costs for all.  
4 The relative level of efficiency investments across the region matter significantly to New Hampshire; as  
5 our neighbors invest more and reduce their demand more, our relative share of regional costs could  
6 increase if we do not keep up.

7  
8 Our testimony begins (Section III) with a review of the benefits of energy efficiency to New Hampshire's  
9 energy system and economy, as well as the environmental and public health benefits that this plan would  
10 provide. The second part of our testimony (Section IV) includes discussion regarding our support for the  
11 fundamental elements of the EE Plan and their importance to the state's energy system, economy, and  
12 environment.

13  
14 **III. Energy, Economic, and Environmental Benefits**

15 **Q. What is your recommendation for the Commission regarding approving the EE Plan?**

16 A. I strongly recommend approval. Implementation of the suite of cost-effective energy efficiency measures  
17 described in this EE Plan will, over the term of the two-year plan, reduce electric usage by 2.8 percent of  
18 2022 sales and natural gas usage by 2 percent of 2022 sales.<sup>1</sup> Energy efficiency presents economic, energy,  
19 and environmental opportunities for the state as it is the least cost method to reduce overall energy  
20 consumption and therefore energy costs. As such, it is a vital method to exert downward pressure on electric  
21 rates by combating the need to invest in additional supply and reduce air pollution and greenhouse gas  
22 (GHG) emissions from the electric sector.

23  

---

<sup>1</sup> EE Plan, BATES pg. 16.

1 As increased energy efficiency will result in lower energy costs for all ratepayers and will provide numerous  
2 environmental benefits, investing in cost effective energy efficiency is consistent with the New Hampshire  
3 energy policy, set forth in RSA 378:37, which states that it is,

4 *“[T]he energy policy of this state to meet the energy needs of the citizens and businesses of the state at*  
5 *the lowest reasonable cost while providing for the reliability and diversity of energy sources and to*  
6 *protect the safety and health of the citizens [and] the physical environment of the state.”*

7  
8 **Q. Can you elaborate on how the EE Plan will reduce costs?**

9 A. Energy efficiency investments lowers energy costs for all consumers. Energy efficiency not only reduces  
10 overall energy consumption, but it also reduces peak energy demand, so energy needs are reduced when it  
11 is most expensive. By lowering energy demand, we need fewer expensive new generation facilities as well  
12 as transmission and distribution infrastructure, so energy efficiency investments result in lower costs for all  
13 customers.

14  
15 Furthermore, reducing demand ensures that “peaker plants,” those electric generation facilities that rely on  
16 the most expensive fuels and have the highest operating cost, are called upon less frequently in ISO-New  
17 England (ISO-NE). The impact these plants have on energy costs is significant because when they are called  
18 into service, they set the clearing price for all the generators operating in the regional market. By keeping  
19 the peaker plants offline, this reduces total system cost. This effect is referred to as the Demand Reduction  
20 Induced Price Effect (DRIPE), and it is particularly powerful when the electric utilities are allowed to invest  
21 aggressively in commercial and industrial (C&I) energy efficiency measures.<sup>2</sup>

22  

---

<sup>2</sup> Synapse (2021). [Avoided Energy Supply Components in New England](https://www.synapse-energy.com/sites/default/files/AESC%202021_20-068.pdf). Synapse Energy Economics.  
[https://www.synapse-energy.com/sites/default/files/AESC%202021\\_20-068.pdf](https://www.synapse-energy.com/sites/default/files/AESC%202021_20-068.pdf).



1 **Q. What economic impact have the utility efficiency programs had in New Hampshire recently?**

2 A. Eversource estimates that total customer energy savings from measures installed during 2018-2020  
3 will total over \$830 million. The benefit-to-cost ratio of these investments is very favorable, nearly  
4 always greater than 2:1 and frequently greater than 3:1. In the case of this EE Plan, the NHSaves program  
5 will provide \$2.27 for every dollar invested.<sup>3</sup> It is important to note that the 2021 NH State Energy  
6 Strategy calls for the prioritization of cost-effective energy efficiency,

7 “Goal 4: Achieve cost-effective energy savings.

8 *Energy efficiency (EE) is often the cheapest and cleanest energy resource. Investing in efficiency*  
9 *boosts the state’s economy by reducing energy costs for consumers and businesses. New Hampshire*  
10 *should prioritize capturing more efficiency in all sectors, including buildings, manufacturing, and*  
11 *transportation.”<sup>4</sup>*

12 This makes the EE Plan consistent with the State Energy Strategy.

13  
14 Energy efficiency provides all ratepayers with price volatility protection. In 2019, NH residents spent  
15 over \$540 million on natural gas, and natural gas prices averaged more than \$20/MMBtu during January  
16 of 2022,<sup>5</sup> more than six times more expensive than the peak spot price for natural gas during the winter of  
17 2019-2020.<sup>6</sup> New England electricity prices are highly correlated with gas prices, and in response to these  
18 price pressures Until increased its default residential six-month electricity supply price from 9.3

---

<sup>3</sup> EE Plan, BATES pg. 11.

<sup>4</sup> DOE (2021). The 2021 State Energy Strategy, Department of Energy, State of NH,  
<https://www.energy.nh.gov/sites/g/files/ehbemt551/files/2022-07/2022-state-energy-strategy.pdf>.

<sup>5</sup> EIA (2022). New England Natural Gas And Electricity Prices Increase On Supply Constraints, High Demand, The Energy Information Administration, US Department of Energy,  
<https://www.eia.gov/todayinenergy/detail.php?id=51158>.

<sup>6</sup> EIA (2022). Natural Gas Weekly Update, The Energy Information Administration, US Department of Energy, [https://www.eia.gov/naturalgas/weekly/archivenew\\_ngwu/2022/01\\_20/](https://www.eia.gov/naturalgas/weekly/archivenew_ngwu/2022/01_20/).

1 cents/kWh during the winter of 2020-2021 to 17.5 cents/kWh the winter of 2022. The most powerful  
2 policy tool New Hampshire has to dampen these rate shocks is to reduce the overall demand for energy.

3  
4 **Q. Why is energy efficiency an important part of our energy mix in the future?**

5 A. There are two trends that make energy efficiency increasingly important to New Hampshire's  
6 economy in the future. The first is the volatility in the global energy market, as demonstrated by the 2022  
7 invasion of Ukraine and the resulting economic sanctions on the Russian economy. The second is the  
8 impact of electrification of the building and transportation sectors, which will have implications for total  
9 consumption and demand across ISO-NE, projected to affect energy supply costs as well as investments  
10 in transmission and distribution infrastructure.

11  
12 **Q. How do these issues relate to energy efficiency?**

13 A. Energy efficiency acts as a financial hedge in both cases.

14  
15 With respect to the impact of geopolitics on New Hampshire's electric rates, energy efficiency acts as a  
16 buffer against a surge in energy price resulting from global shocks. Investments in energy efficiency in  
17 advance enable businesses and individuals to minimize their exposure to the increased rates, leading to  
18 significant cost savings. This suppression of energy costs can deflect a cascade of impacts to the broader  
19 economy by allowing companies to maintain their workforce and other planned investments rather than  
20 divert funding to their energy budget.

21  
22 With respect to electrification of end uses, energy efficiency can also suppress electric supply rates by  
23 minimizing growth in consumption and demand, but it can also reduce or defer investments in  
24 transmission and distribution infrastructure. Both the adoption of electric vehicles in the transportation

1 sector and heat pumps in the building sector for heating, cooling, and hot water are projected to increase  
2 significantly over the next decade in the ISO-NE region. While electrification of the building and  
3 transportation sectors will reduce the total energy consumed by the NH economy, due to the significant  
4 efficiencies these technologies provide over their combustion counterparts, they will dramatically  
5 increase the overall electrical consumption and peak demand.

6  
7 The energy transition is projected to reverse historic electric sector trends with electricity consumption  
8 and net demand likely to dramatically increase in the coming decades, due to the electrification of  
9 building heating and the transportation sector. In the coming decades, New England and New  
10 Hampshire anticipate a substantial rise in electricity consumption as the building and transportation  
11 sectors undergo electrification. It is projected that electricity usage may more than double or triple  
12 compared to the present. To accommodate this surge in demand, there will be a need for a proportional  
13 increase in power generation capacity, as well as transmission and distribution infrastructure.

14  
15 The impact of efficiency was attested to at a Federal Energy Regulatory Commission meeting on June 20,  
16 2023, when ISO-NE noted that supply and demand for electricity should roughly balance out in the region  
17 through 2027. Critically, ISO-NE indicated that the liquefied natural gas (LNG) facility in Everett would  
18 no longer be needed for reliability purposes. While ISO-NE is not yet ready for the facility to close, what  
19 is remarkable is that LNG, when used to run gas generation, contributes significantly to the region's  
20 electric supply rate. The ISO-NE analysis credited stronger than expected growth in solar power, fewer  
21 retirements of existing power plants, *and flat demand for electricity.*<sup>7</sup>

22  

---

<sup>7</sup> Mohl, B. (2023). Grid Operator Dials Back Electricity Concerns Growth In Solar Power Eases Concerns Through 2027, Commonwealth Magazine, <https://commonwealthmagazine.org/energy/grid-operator-dials-back-electricity-concerns/>.

1 **Q. What evidence exists to demonstrate this growth in electric power consumption?**

2 A. The coming expansion of the electric sector has been forecast by numerous entities. Evidence,  
3 however, is close at hand. For example, in testimony in the recent Docket DE 20-166, Eversource Least  
4 Cost Integrated Resource Plan, Eversource’s witness, Dr. Gerhard Walker, noted with respect to growing  
5 demand that,

6 *“we're expecting, at a minimum, a doubling of the system load over the next 20 to 30 years as*  
7 *electrification progresses”* (Gerhard, Tr, 3/7/23 at 230:2-4).

8  
9 As noted above, at the same Federal Energy Regulatory Commission meeting noted, the ISO-NE  
10 President and CEO, Gordon van Weile, noted that demand for electricity is expected to increase in the  
11 early 2030s as cars, homes, and businesses are electrified to address to reduce carbon emissions.<sup>8</sup> This  
12 statement was based on specific data made available through ISO-NE’s Forecast Report of Capacity,  
13 Energy, Loads, and Transmission (the “CELT Report”). The CELT Report includes 10-year projections  
14 that are used in power system planning and reliability studies. In its most current reporting, ISO-NE’s  
15 final 2023 transportation electrification forecast, released on April 28, 2023, projects that the region will  
16 grow from 35 thousand EVs to 2.2 million on the road in 2031 in just the light-duty passenger fleet alone.  
17 Medium duty and heavy duty will see separate additions.<sup>9</sup> This is 4400 percent growth over the vehicles  
18 on the road in 2022.

19

---

<sup>8</sup> Mohl, B. (2023). Grid Operator Dials Back Electricity Concerns Growth In Solar Power Eases Concerns Through 2027, Commonwealth Magazine, <https://commonwealthmagazine.org/energy/grid-operator-dials-back-electricity-concerns/>.

<sup>9</sup> ISO-NE (2023). 2023 Final Transportation Electrification Forecast, ISO-NE Load Forecast Committee, [https://www.iso-ne.com/static-assets/documents/2023/04/transfx2023\\_final.pdf](https://www.iso-ne.com/static-assets/documents/2023/04/transfx2023_final.pdf).

1 However, the actual growth of EVs in the region could be even greater than currently projected. ISO-  
2 NE's 2022 final transportation electrification forecast had projected that 1.5 million EVs would be on the  
3 road for 2031;<sup>10</sup> an upward revision of nearly 50 percent. This revision upward, however, is entirely  
4 consistent with ISO-NE's other forecasts over the past decade for energy efficiency and solar PV  
5 adoption; ISO-NE's annual forecasts for the energy transition tend to be conservative, and therefore low.

6  
7 While only a fraction of these vehicles will be registered in New Hampshire, many may travel to New  
8 Hampshire and impact our electric system due to our significant travel and tourism sector. Tens of  
9 millions of tourists visit New Hampshire annually, and the state reports that "the large majority of tourists  
10 drive to the state, as opposed to fly or take trains into the state."<sup>11</sup> The regional transportation trends  
11 across the New England states and Canadian provinces are likely to have a significant impact on our  
12 electrical infrastructure as the state works to remain competitive with Maine and Vermont.

13  
14 In addition, the number of homes with heat pumps in New England is projected to grow from 63,000 to  
15 almost 1.4 million households. Similarly, commercial heating applications will experience separate  
16 growth.<sup>12</sup> The overall effect of this transition will be an increase in consumption and demand.<sup>13</sup> In the  
17 most recent heating electrification forecast, ISO-NE projects that within a decade, winter peak for the

---

<sup>10</sup> ISO-NE (2022). 2022 Final Transportation Electrification Forecast, ISO-NE Load Forecast Committee, [https://www.iso-ne.com/static-assets/documents/2022/02/evf2022\\_forecast.pdf](https://www.iso-ne.com/static-assets/documents/2022/02/evf2022_forecast.pdf).

<sup>11</sup> NH DOT (2015). State Airport System Plan. NH Department of Transportation, <https://www.nh.gov/dot/org/aerorailtransit/aeronautics/sasp/documents/TR3economic.pdf>.

<sup>12</sup> ISO-NE (2022). 2022 Final Heating Electrification Forecast, 2022 CELT Report, Load Forecast Committee, [https://www.iso-ne.com/static-assets/documents/2022/04/final\\_2022\\_heat\\_elec\\_forecast.pdf](https://www.iso-ne.com/static-assets/documents/2022/04/final_2022_heat_elec_forecast.pdf).

<sup>13</sup> ISO-NE (2021). Draft 2022 Gross Energy Forecast, 2022 CELT Report, Load Forecast Committee, [https://www.iso-ne.com/static-assets/documents/2021/12/1f2022\\_draft\\_energy.pdf](https://www.iso-ne.com/static-assets/documents/2021/12/1f2022_draft_energy.pdf).

1 50/50 scenario could rise an additional 2000 MW and for the 90/10 scenario rise an additional 2700  
2 MW.<sup>14</sup>

3  
4 ISO-NE's forecasts for EVs and building electrification mean that significant growth in electric  
5 generation, and electric power distribution and transmission, will be needed as the economics and  
6 efficiency of new technologies drives the market away from fossil fuel for heating and transportation. As  
7 electric load grows in New Hampshire without a corresponding increase in local DERs, then there could  
8 be significant economic implications. Therefore, energy efficiency programs are especially essential since  
9 they are the only state programs capable of counter-balancing these trends and working to keep electricity  
10 rates low.

11  
12 The most effective initial action that New Hampshire can take to mitigate the impacts on the energy  
13 system and resulting rate increases is to incentivize overall energy demand reduction. By reducing  
14 energy consumption in the short term, there will be spare generation, distribution, and transmission  
15 capacity available to accommodate the initial waves of electrification in the transportation and building  
16 sectors. This approach buys time for the orderly development of additional energy supply capacity and  
17 grid infrastructure. Energy efficiency and conservation can be compared to gradually lowering the water  
18 level behind a dam in anticipation of a severe storm. As the rains fall and the rivers rise, the dam's  
19 reservoir will have sufficient capacity to store water, protecting downstream communities and  
20 infrastructure without risking dam failure.

21  
22 Preparing for and taking proactive measures ahead of these changes is crucial to minimize costs. While

---

<sup>14</sup>ISO-NE (2023). 2023 Final Heating Electrification Forecast, 2022 CELT Report, Load Forecast Committee, [https://www.iso-ne.com/static-assets/documents/2023/04/heatFx2023\\_final.pdf](https://www.iso-ne.com/static-assets/documents/2023/04/heatFx2023_final.pdf).

1 we cannot predict the precise nature of the energy system's transformation and its economic impacts, we  
2 can forecast and plan for the general direction and scale of the changes. ISO-NE has been engaged in  
3 long-term forecasting and planning, continuously improving its forecasts and plans to ensure reliable  
4 and cost-effective service. By engaging in proactive planning and preparation, energy system managers  
5 can guide the system towards a preferred state, rather than implementing costly reactive measures.

6  
7 **Q. Beyond energy system benefits, what additional benefits does the EE Plan offer?**

8 A. This EE Plan will provide support and certainty needed for New Hampshire's energy efficiency  
9 industry. This workforce is highly skilled and has been growing in size and sophistication over the past  
10 decade. Thousands of Granite Staters are already employed by efficiency contractors. These contractors  
11 are often small, local businesses that offer excellent career opportunities to attract a growing workforce to  
12 New Hampshire. Many contractors offer long-term career development opportunities, health  
13 care/retirement and paid time off benefits to their employees, and often do not require college education  
14 as a prerequisite to employment in this high paying industry. Approval of the plan will provide energy  
15 efficiency companies the certainty they need to further expand their operations in New Hampshire.

16  
17 **Q. What types of non-energy benefits does the EE Plan provide?**

18 A. The use of electricity and natural gas in our built environment, whether for heat, lighting, production  
19 or other purposes, results in adverse environmental impacts. Using less energy to achieve the same  
20 outcome reduces harmful emissions that contribute to water pollution, local air pollution and global  
21 climate change. As noted above, the EE Plan will reduce electric usage by 2.8 percent of 2022 sales and  
22 natural gas usage by 2 percent of 2022 sales. Such savings will result in immediate and long-term public  
23 health and environmental quality benefits.

24

1 Reducing total energy consumption lowers emissions of smog-forming compounds and particle pollution  
2 that cause direct health impacts, mercury emissions that significantly pollute our lakes and streams, and  
3 greenhouse gas emissions that contribute to climate change. In that respect, energy policy is  
4 environmental policy and vice versa. This connection has been reinforced by the NH General Court on  
5 numerous occasions, as reflected in NH statutes, a fact which was noted during the development of the  
6 Granite State Test (GST) and the Secondary Granite State Test by the EERS Benefit/Cost Working Group  
7 during 2019.<sup>15</sup>

8  
9 As energy efficiency and other clean energy solutions evolve and come down in price, they present a  
10 significant opportunity to reduce energy costs while providing for a cleaner environment, leading to  
11 improved public health outcomes. Because the efficiency programs proposed by the EE Plan are designed  
12 to be cost-effective, those environmental gains come with economic savings as well.

13  
14 Analysis of the 2024-2026 EE Plan found that the proposed programs will lead to a reduction of more  
15 than 2 million tons of GHG emissions.<sup>16</sup> This is consistent with findings of an analysis of ISO-NE's Final  
16 2021 ISO New England Electric Generator Air Emissions Report, which noted that shifting electricity use  
17 from on-peak to off-peak reduces the emission of Clean Air Act criteria air pollutants, including oxides of  
18 nitrogen (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>), and carbon dioxide (CO<sub>2</sub>), a greenhouse gas, considerably.<sup>17</sup>  
19 During ozone season, shifting electricity from peak to off-peak can, on average, reduce emissions for

---

<sup>15</sup> Malone, E., Woolf, T., and Letendre, S. (2019). New Hampshire Cost-Effectiveness Review: Application of the National Standard Practice Manual to New Hampshire, Synapse Energy Economics, [https://www.puc.nh.gov/regulatory/docketbk/2017/17-136/letters-memos-tariffs/17-136\\_2019-10-31\\_staff\\_nh\\_cost\\_effectiveness\\_review.pdf](https://www.puc.nh.gov/regulatory/docketbk/2017/17-136/letters-memos-tariffs/17-136_2019-10-31_staff_nh_cost_effectiveness_review.pdf).

<sup>16</sup> EE Plan, BATES pg. 11.

<sup>17</sup> ISO-NE (2023). Final 2021 ISO New England Electric Generator Air Emissions Report, ISO New England Inc. System Planning, <https://www.iso-ne.com/static-assets/documents/2023/04/2021-air-emissions-report.pdf>.



1 NO<sub>x</sub>, SO<sub>2</sub>, and CO<sub>2</sub> by 47 percent, 50 percent, and 5 percent respectively.<sup>18</sup> On high electric demand days  
2 during the ozone season, the emission reductions can be considerably greater; at 350 percent, 750 percent,  
3 and 24 percent respectively.<sup>19</sup>

4  
5 **IV. Recommendations**

6 **Q. What is your recommendation to the Commission?**

7 A. For the reasons above, I strongly support the 2024-2026 EE Plan as submitted, and urge the  
8 Commission to approve it. The proposed plan and investments will benefit New Hampshire's economy,  
9 ratepayers, and environment for years to come. The work by the utilities to develop and refine the plan is  
10 commendable, particularly with the policy direction provided by the Legislature in HB549 of 2022 and  
11 SB113 of 2023.

12  
13 CENH strongly recommends that the Commission approve the EE Plan's proposed goals of cumulative  
14 energy savings of 2.8 percent of the NH Electric Utilities' 2022 kWh delivery sales and 2 percent of the  
15 NH Natural Gas Utilities' 2022 MMBtu delivery sales. CENH' recommendation is based upon the NH  
16 Utilities' demonstration that achievement of those goals would deliver significant cost-effective energy  
17 reductions, which would provide real energy cost savings to New Hampshire ratepayers, as well as  
18 significant environmental benefit. The EE Plan is projected to deliver customer energy cost savings of  
19 more than \$675 million over the lifetime of the measures,<sup>20</sup> as a result of avoiding 2.6 billion electric

---

<sup>18</sup> Analysis of ISO-NE data, Table 5-3, 2021 Time-Weighted LMU Marginal Emission Rates—All LMUs (lbs./MWh), 2021 ISO New England Electric Generator Air Emissions Report, pg., 33, <https://www.iso-ne.com/static-assets/documents/2023/04/2021-air-emissions-report.pdf>.

<sup>19</sup> Analysis of ISO-NE data, Table 5-3, 2021 Time-Weighted LMU Marginal Emission Rates—All LMUs (lbs./MWh), pg., 33, and Table 5-9, High Electric Demand Day LMU Marginal Emission Rates (lbs./MWh), pg. 42, 2021 ISO New England Electric Generator Air Emissions Report, <https://www.iso-ne.com/static-assets/documents/2023/04/2021-air-emissions-report.pdf>.

<sup>20</sup> EE Plan, BATES pg. 10.

1 kWh and 6.5 million natural gas MMBtu, and further avoiding 5.2 million MMBtu from other fuels, such  
2 as oil and propane.<sup>21</sup> Such reductions will provide significant environmental benefits, including a  
3 reduction of more than 2 million tons of GHG emissions over the life of the measures.<sup>22</sup> By delivering  
4 such a broad range of benefits, the goals in this EE Plan present a comprehensive package of benefits for  
5 the state.

6  
7 The proposed 2024-2026 NHSaves Plan was developed in accordance with the clear direction provided in  
8 two pieces of legislation, HB549 of 2022 and SB113 of 2023. As a result, the EE Plan reflects the clear  
9 policy direction and priorities of the Legislature and embodies the collective commitment of New  
10 Hampshire's policymakers to enable access to cost effective energy efficiency programs for New  
11 Hampshire residents and businesses, in an effort to reduce volatility and lower energy costs for all  
12 ratepayers. We respectfully urge the Commission to respect this clear policy guidance, and determine that  
13 the EE Plan adheres to the law and fulfills legislative intent. The Utilities sought input from a broad range  
14 of entities representing many interests across populations and sectors in the state, and reflects the best  
15 approach to offering efficiency programs within the boundaries of our state's laws and policies.

16  
17 **V. Conclusion**

18 **Q. Does this conclude your testimony?**

19 A. Yes. However, Clean Energy New Hampshire does need to reserve its right to supplement this  
20 testimony in light of the Commission's extensive discovery requests which seek new analysis and  
21 significant new information beyond the scope of the proposed programs, the answers to which have not  
22 been submitted by the Utilities.

---

<sup>21</sup> Ibid, BATES pg. 10.

<sup>22</sup> Ibid, BATES pg. 11.

**Addendum CS-1**

**Qualification of Christopher J. Skoglund**

My name is Christopher J. Skoglund. I am employed as the Director of Energy Transition by Clean Energy New Hampshire (CENH). My business address is 14 Dixon Ave in Concord NH.

I earned a Bachelor of Arts in Biology from Johns Hopkins University in 1997 and a Master of Science in Natural Resources from the University of New Hampshire in 2012. In between those degrees, I was principally employed teaching environmental and science education to middle and high school students across the country.

In 2007, I began working part-time as a Climate Program Specialist working on developing background data and analysis and planning tools to support a potential state climate action plan. In 2008, I was hired full time as an Energy and Transportation Analyst, primarily coordinating the development of the 2009 NH Climate Action, which included managing the analysis of the transportation, building, and power generation sectors. In this position, I was also engaged in transportation planning and analysis, working with the NH Department of Transportation and the four Metropolitan Planning Organizations in the southeast corner of the state.

In 2010, I moved into the Energy and Climate Analyst position, focusing more on building and electric sectors with high-level energy and climate-change planning focused at the local, state, and regional level. In 2012, I oversaw the state's Energy Efficiency and Sustainable Energy Board's development of the 2012 EESE Board Review on the Independent Study of Energy Policy Issues ("SB 323 (2010) Study").

In 2016, I moved to the Climate and Energy Program Manager position at NHDES. In this role, I regularly tracked legislation and testified before the state legislature. I was also a regular participant in PUC dockets, including Grid Mod, Net-Metering, Utility Energy Efficiency Programs, and the individual electric utility rate cases.

While at NHDES, I was also a member of the New England Governor's Eastern Canadian Premiers (NEG/ECP) Climate Change Steering Committee and helped lead efforts in 2015 and 2016 to establish a new regional GHG emissions reduction target for 2030. In 2016 and 2017, I led the successful effort to develop an update to the region's 2001 climate action plan, a plan that was economy wide and inclusive of the transportation, building, and power generation sectors.

Throughout this time at NHDES, I maintained the statewide GHG inventory, inclusive of the above-mentioned sectors and took a lead role in the GHG inventory for the entire NEG/ECP region. This modeling work grew to include energy analysis for the entire state.

I joined CENH in January of 2022. In this role, I am the organization's lead at the NH Public Utilities Commission, while also providing support for legislative, planning, and educational initiatives, as well as leading and coordinating initiatives and stakeholder groups within and among the transportation, building, and power generation sectors.