RHODE ISLAND PUBLIC UTITLITES COMMISSION

DOCKET NO. 24-39-EE

The Narragansett Electric Co. d/b/a Rhode Island Energy's Annual Energy Efficiency Plan for 2025

DIVISION OF PUBLIC UTILITIES & CARRIERS

PRE-FILED DIRECT TESTIMONY

OF

JENNIFER KALLAY, SYNAPSE ENERGY ECONOMICS

November 15, 2024

Table of Contents

1. INTRODUCTION

Q. MS. KALLAY, PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jennifer Kallay. My business address is 485 Massachusetts Avenue, Suite 3, Cambridge, Massachusetts, 02139. I am employed by Synapse Energy Economics, Inc. (Synapse) as a Principal Associate.

Q. PLEASE DESCRIBE SYNAPSE ENERGY ECONOMICS.

A. Synapse Energy Economics is a research and consulting firm specializing in electricity and gas industry regulation, planning, and analysis. Our work covers a range of issues, including economic and technical assessments of demand-side and supply-side energy resources; energy efficiency policies and programs; power sector transformation; integrated resource planning; electricity market modeling and assessment; renewable resource technologies and policies; and climate change strategies. Synapse works for a wide range of clients, including state attorneys general, offices of consumer advocates, trade associations, public utility commissions, environmental advocates, the U.S. Environmental Protection Agency, U.S. Department of Energy, U.S. Department of Justice, the Federal Trade Commission, and the National Association of Regulatory Utility Commissioners. Synapse has over 50 professional staff with extensive experience in the electricity industry.

Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL BACKGROUND.

A. I have 17 years of professional experience analyzing the benefits and costs of energy efficiency efforts for jurisdictions in the United States and Canada including Massachusetts, Rhode Island, Hawaii, Vermont, New Jersey, Arkansas, Minnesota, Virginia, Prince Edward's Island, Ontario, New Mexico, Alberta, New Brunswick, and Nova Scotia. Since 2012, I have supported the Division of Public Utilities & Carriers (Division) in assessing the impacts of utility energy efficiency plans and delivery strategies on customers. My work entails reviewing different regulatory approaches to spur energy efficiency; assessing the ability of utility energy efficiency plans to tap into cost-effective potential; researching best practice program designs and policies; understanding and accounting for the full benefits of energy efficiency; and conducting rate and bill impact, participant, and cost-effectiveness analyses. I received a Bachelor of Arts in Journalism from the University of Maryland and a Master of Energy and Environmental Analysis Degree from Boston University. My resume is attached as Exhibit JK-1.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE RHODE ISLAND PUBLIC UTILITIES COMMISSION?

A. Yes, I testified before the Commission in the following energy efficiency dockets:

- *2024-2026 Three-Year EE Plan* and *2024 Annual EE Plan* in Docket 23-35-EE;
- *2023 Annual EE Plan* in Docket 22-33-EE;

- *2022 Annual EE Plan* in Docket 5189; and,
- *2021-2023 Three-Year EE Plan* and *2021 Annual EE Plan* in Docket 5076.

2. PURPOSE OF THIS TESTIMONY

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?

A. I am testifying on behalf of the Division.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The Division, as Rhode Island's Ratepayer Advocate, is an indispensable party in all Public Utility Commission (Commission) proceedings. The Division serves the Commission, through discovery and evidentiary hearings, by providing the Commission with recommendations that favor ratepayers. The Division hired Synapse as its expert consultant to assist in its review of Narragansett Electric Company d/b/a Rhode Island Energy's (RIE or the Company) 2025 Energy Efficiency Annual Plan (*EE Plan*), filed on October 1, 2024. I reviewed the *EE Plan* to ensure: (1) compliance with R.I. Gen. Laws § 39-1-27.7 (the Least Cost Procurement Statute); (2) adherence to the newly adopted PUC's Least Cost Procurement (LCP) Standards adopted in Docket No. 23-07-EE; (3) advancement of the State of Rhode Island's energy policies and the goals of R.I. Gen. Laws § 42-6.2-2 (the *Act on Climate*); and (4) promotion of the general interest and welfare of Rhode Island ratepayers. The purpose of my testimony is to provide a review of some key changes in the *EE Plan* as compared to the *2024 Annual EE Plan* and 2025 in the *2024-2026 Three-Year EE Plan* for the Commission's deliberations.

Q. WHAT WAS YOUR ROLE IN THE DEVELOPMENT OF THE *EE PLAN*?

A. I participated in the development of the plan by: (1) observing monthly Technical Working Group (TWG) meetings; (2) monitoring and reviewing presentations and documents shared at the TWG meetings; (3) examining programs and conducting informal data requests; (4) reviewing EE Quarterly Reports issued by the Company; (5) reviewing drafts of the proposed *EE Plan* and commenting, as necessary; and (6) reviewing the *EE Plan*, as filed, for consistency with the LCP Statute, the LCP Standards, the *Act on Climate*, and to ensure that the *EE Plan* is in the general best interest for Rhode Island ratepayers.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. I start by summarizing key changes to the *EE Plan* as compared to the *2024 Annual EE Plan* and 2025 in the *2024-2026 Three-Year EE Plan*. I identify my findings and recommendations related to certain key changes (Section 3). I provide greater detail on each finding (Sections 4 and 5). I conclude by restating my recommendations (Section 6).

3. SUMMARY OF KEY CHANGES TO THE *EE PLAN* AND FINDINGS AND RECOMMENDATIONS

Q. WHAT ARE THE KEY CHANGES TO THE *EE PLAN*?

A. The key changes to the *EE Plan* include:

- Reduced savings due to the adoption of the 2024 International Energy Conservation Code;

- Reduced savings due to the passage of the Rhode Island Mercury Reduction and Education Act[1] and related regulations;[2]
- Updated avoided energy supply costs;[3]
- Shift of gas audit costs from the electric to the gas portfolio;[4]
- Reduced benefits due to the removal of the low-income discount from the cost of supply and benefit-cost calculations;[5]
- Updated calculations of the cost of supply and justification for why programs with a cost of energy efficiency that exceeds the cost of supply should nevertheless be approved;[6]
- A new rate and bill impact methodology;[7]
- Reduced investments in measures with delivered fuels savings;[8]

[1] R.I. Gen. Laws § 23-24-9.1 et seq.
[2] 250-RICR-140-20-3
[3] *EE Plan*. Bates 121.
[4] *EE Plan*. Bates 166.
[5] State of Rhode Island Public Utilities Commission. *The Narragansett Electric Company d/b/a Rhode Island Energy's 2024-2026 Three-Year Plan and 2024 Annual Energy Efficiency and Conservation Procurement Program Plan. Report and Order*. July 3, 2024. Page 41. Available at: https://ripuc.ri.gov/sites/g/files/xkgbur841/files/2024-07/2335EE%20-%20PUC%20Order%20No.%2025092.pdf.
[6] *Id.* at 41-42.
[7] *Id.*
[8] As a result of changes to the Performance Incentive Mechanism (PIM) and direction provided by the State of Rhode Island Public Utilities Commission during the 12/19/23 Open Meeting on 2024 EE Plan. Available at: https://video.ibm.com/recorded/133246786.

- Launch of Rhode Island Office of Energy Resources' (OER) Clean Heat RI and Home Electrification and Appliance Rebate (HEAR) programs and proposal for the Home Efficiency Rebates (HER) program; and,

- Updated methodology for carbon accounting.[9]

Q. PLEASE SUMMARIZE THE RESULTS OF THE CHANGES TO THE *EE PLAN*.

A. Table 1 below provides a comparison of the *EE Plan* with the 2025 program year within the *2024-2026 Three-Year EE Plan*.

Table 1. Key *EE Plan* Metrics

Key Metrics		Electric			Gas		
		2025 in 3YP	2025 Annual Plan	% Change	2025 in 3YP	2025 Annual Plan	% Change
Costs	Total Spending ($000)	$98,331	$81,946	-17%	$34,083	$35,049	3%
	Residential Program Charge / kWh or Dth	$0.012	$0.009	-24%	$0.90	$1.12	24%
	C&I Program Charge / kWh or Dth	$0.012	$0.009	-24%	$0.91	$0.45	-61%
Savings & Benefits	Annual Savings (MWh or MMBtu)	94,561	82,921	-12%	312,846	274,817	-12%
	Lifetime Savings (MWh or MMBtu)	761,575	595,734	-22%	3,300,644	2,941,697	-11%
	$/ Lifetime kWh or MMBtu	$0.147	$0.165	12%	$12.14	$14.35	18%
	RI Test B/C Ratio	1.84	1.96	7%	2.05	1.82	-11%
	Avoided Cost of Supply – Cost of EE	Not available	$36,420	Not available	Not available	$19,480	Not available

Sources:

1. *EE Plan. Table 1. 2025 Energy Efficiency Program Plan Summary, Bates page 89.*
2. *EE Plan. Table 7. Comparison of 2025 Electric Portfolio in Three-Year Plan Compliance Filing and 2025 Annual Plan and Table 8. Comparison of 2025 Gas Portfolio in Three-Year Plan Compliance Filing and 2025 Annual Plan, Bates page 141.*
3. *EE Plan. Attachment 5. Table E-12: Rhode Island Energy 2025 Cost of Supply Compared to Cost of Energy Efficiency ($000), page 18. Represents Intrastate w/o Delivered Fuels and w/o Participant Costs.*

[9] *EE Plan*. Bates 79.

4. *EE Plan. Attachment 6. Table G-12: Rhode Island Energy 2025 Cost of Supply Compared to Cost of Energy Efficiency ($000), page 18. Represents Intrastate w/o Delivered Fuels and w/o Participant Costs.*

RIE clarifies that total spending on the electric portfolio is down, driven by a shift of audit costs for gas measures from the electric to the gas portfolio, a reduction in delivered fuels incentives and measures, the new building code and mercury ban, and reductions in Small Business incentives for customers using more than one million kWh per year.[10] RIE also confirms that the increase in the lifetime cost of saved energy is due to new avoided costs, evaluation results, market factors, changes in measure mix, and increases in measure-level total resource costs and incentives.[11] Annual and lifetime electric savings are lower due to lower spending and a higher cost of saved energy. RIE also notes that the increase in the RI Test cost-effectiveness is due to the use of a higher avoided cost of GHG emissions from the *Avoided Energy Supply Components in New England 2024 Study* (AESC 2024).[12,13] I include the net cost of supply calculation for both electric and gas with Intrastate without Delivered Fuels and without Participant Costs for reference and note that data from 2025 in the *2024-2026 Three-Year EE Plan* is not currently available for comparison.

[10] Responses to Division's Second Set of Data Requests to RIE. Division 2-5. November 7, 2024.
[11] Responses to Division's Second Set of Data Requests to RIE. Division 2-31. November 7, 2024.
[12] Responses to Division's Second Set of Data Requests to RIE. Division 2-28. November 7, 2024.
[13] Synapse Energy Economics, Sustainable Energy Advantage, North Side Energy, Resource Insight, and Les Deman Consulting. *Avoided Energy Supply Components in New England: 2024 Report*. Amended May 24, 2024. Available at: https://www.synapse-energy.com/aesc-2024-materials

RIE states that total spending on the gas portfolio is slightly higher due to the shift of audit costs for gas measures from the electric to the gas portfolio and an increase in spending on Residential Gas equipment, including boilers and furnaces, to better align with actual installation quantities.[14] The cost of saved energy is increasing due to these costs shifts, which is resulting in lower annual and lifetime gas savings. The RI Test cost-effectiveness is declining despite the application of the higher avoided cost of GHG emissions from AESC 2024.

Q. DO YOU HAVE FINDINGS AND RECOMMENDATIONS RELATED TO THE CHANGES TO THE EE PLAN?

A. Yes, I have findings and recommendations related to: (1) electric heat savings associated with weatherization and electrification of homes that are heated with delivered fuels, as a component of the discussion of the updated cost of supply calculations, and (2) the coordination of weatherization for homes heated by delivered fuels in the *EE Plan* with OER's Clean Heat RI and HER electrification programs. Tim Woolf of Synapse will address findings and recommendations about the updated carbon accounting methodology in separate testimony. I do not have findings and recommendations related to energy code adoption, mercury reduction standards adoption, avoided energy supply cost updates, shift of gas audit costs from the electric to the gas portfolio, and the new rate and bill impact methodology.

[14] Responses to Division's Second Set of Data Requests to RIE. Division 2-5. November 7, 2024.

Q. PLEASE SUMMARIZE YOUR FINDINGS ON THESE CHANGES TO THE *EE PLAN.*

A. I find the following regarding the *EE Plan*:

- Federal *Inflation Reduction Act* (IRA) funds for HEAR and HER programs were not allocated to energy efficiency measures in the *EE Plan*. However, there are points of interaction between OER's electrification programs and RIE's energy efficiency programs. RIE's programs could be better coordinated with OER's programs.

- The *EE Plan* does not differentiate between weatherization for homes with delivered fuels where electrification is imminent versus not anticipated.

- The *EE Plan* does not properly account for delivered fuels and electric system savings for weatherization of homes with delivered fuels, in cases where the home is electrified at or around the time of weatherization.

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

A. I recommend that the Commission:

- Approve the *EE Plan*, including programs that are not cost-effective under the updated cost of supply calculation because the justification for continuing these programs is valid.

- Direct RIE to support OER in encouraging customers using delivered fuels to weatherize at the time of electrification because it is in the interest of electric ratepayers. In its communications, RIE should promote OER's electrification programs, emphasize the importance of weatherization for customers considering electrification, and point customers to RIE's programs for support.

- Direct RIE to track, report, and break out weatherization projects for delivered-fuel homes with electrification versus without electrification. RIE should work with OER to include a projection of the number of customers referred by OER to RIE for weatherization prior to electrification.

- Direct RIE to accurately account for electric and delivered fuels savings for delivered-fuel home weatherization combined with electrification. The costs and benefits of weatherization and electrification should be reported separately, such that RIE and OER can report the costs and benefits associated with their efforts without missing or duplicating data. The assumptions about the timing of electrification for customers who do not electrify immediately after weatherizing should align with the electrification trajectory of delivered fuels heating customers in the state, per the *Act on Climate* goals and the projected participation in OER's Clean Heat RI and HER programs.

4. COST-EFFECTIVENESS

Q. IS THE *EE PLAN* COST-EFFECTIVE BASED UPON THE RI TEST?

A. Yes, all programs and portfolios are cost-effective based upon the RI Test.

Q. IS THE *EE PLAN* COST-EFFECTIVE BASED UPON THE UPDATED COST OF SUPPLY CALCULATION?

A. No, four electric programs and two gas programs are not cost-effective using this definition of cost-effectiveness. The four electric programs that are not cost-effective using this definition are the EnergyWise Single Family, EnergyWise Multifamily, Income Eligible Single Family, and Income Eligible Multifamily programs. The two gas programs that are not cost-effective using this definition are the EnergyWise Single Family and Income Eligible Single Family programs. Table 2 below shows the cost of supply calculation for these programs.

Table 2. Cost of Supply Compared to Cost of Energy Efficiency for Non-Cost-Effective Electric and Gas Programs

Programs	Cost of Supply Compared to Cost of Energy Efficiency ($000)
Electric	
EnergyWise Single Family	-$8,805.4
EnergyWise Multifamily	-$162.2
Income Eligible Single Family	-$2,091.2
Income Eligible Multifamily	-$240.5
Subtotal for Non-C/E Electric Programs	-$11,299.3
Gas	
EnergyWise Single Family	-$1,564.1
Income Eligible Single Family	-$2,556.1
Subtotal for Non-C/E Gas Programs	-$4,120.2
Subtotal for Non-C/E Electric & Gas Programs	-$15,349.5

Sources:

1. *EE Plan. Attachment 5. Table E-12 Rhode Island Energy 2025 Cost of Supply Compared to Cost of Energy Efficiency ($000), Column (d) Intrastate w/o Delivered Fuels and w/o Participant Costs, Bates page 354.*
2. *EE Plan. Attachment 6. Table G-12 Rhode Island Energy 2025 Cost of Supply Compared to Cost of Energy Efficiency ($000), Column (d) Intrastate w/o Delivered Fuels and w/o Participant Costs, Bates page 372.*

Q. WHY AREN'T THESE PROGRAMS COST-EFFECTIVE BASED UPON THE UPDATED COST OF SUPPLY CALCULATION?

A. RIE provides a high-level explanation on Bates page 140 which states, "All programs requiring justification here are direct install programs, where the Company's implementation teams perform the measure installation in customers' homes and businesses, rather than the customer needing to arrange installation and maintain quality. Direct install programs are by their nature expensive, because of the site-specific conditions of audits and weatherization work."

Of all the programs, the Electric EnergyWise Single Family program has the greatest absolute discrepancy between the costs of supply and cost of energy efficiency, at nearly $9 million. RIE states that the Electric EnergyWise Single Family and Income-Eligible

Single Family programs are not cost-effective based on the updated cost of supply calculation due to the inclusion of measures with delivered fuels savings.[15] Table 3 below calculates the proportion of total program incentives for delivered-fuel home measures for the non-cost-effective electric programs. Incentives for delivered-fuel home measures are a large component of the Electric EnergyWise Single Family and Income-Eligible Single Family programs. Most of the delivered fuels incentives in these programs are associated with delivered-fuel home weatherization.

Table 3. Delivered-Fuel Home Incentives in Non-Cost-Effective Electric Programs

Programs	Delivered-Fuel Home Incentives for Weatherization ($000s)	Delivered-Fuel Home Incentives ($000s)	Delivered-Fuel Home Incentives for Weatherization % of Delivered-Fuel Home Incentives	Total Program Incentives ($000s)	Delivered-Fuel Home Incentives % of Total Program Incentives
	Electric				
EnergyWise Single Family	$4,429.7	$4,797.1	92%	$9,248.5	52%
EnergyWise Multifamily	$6.4	$6.8	94%	$617.9	1%
Income Eligible Single Family	$1,419.0	$1,765.2	80%	$9,480.4	19%
Income Eligible Multifamily	$8.1	$8.2	99%	$1,692.2	0.5%
Subtotal for Non-C/E Electric Programs	$5,863.2	$6,577.3	89%	$21,039.0	31%

Sources:

1. *Delivered-fuel home weatherization incentives from responses to Division's Second Set of Data Requests to RIE. Division 2-8. November 7, 2024.*
2. *Delivered-fuel home incentives from responses to Division's Second Set of Data Requests to RIE. Division 2-7. November 7, 2024.*
3. *Total program incentives from EE Plan, Attachment 5, Table E-2 Rhode Island Energy 2025 Energy Efficiency Program Budget ($000) on Bates page 338.*
4. *Delivered-fuel home incentives % of total program incentives is calculated as Delivered-fuel home incentives / Total program incentives.*

[15] Responses to Division's Second Set of Data Requests to RIE. Division 2-29. November 7, 2024.

Q. HOW DID RIE JUSTIFY CONTINUATION OF THESE PROGRAMS IN 2025 IF THEY ARE NOT COST-EFFECTIVE BASED UPON THE UPDATED COST OF SUPPLY CALCULATION?

A. RIE offers the following rationale for continuation of these programs in 2025:

- Customers are interested in other fuel and non-energy benefits (which are excluded by the cost of supply calculation) and will be more satisfied with RIE and its energy efficiency programs if programs address these interests.
- The programs support state goals of the *Act on Climate*.
- Some measures enable other measures, some programs enable other programs, and programs requiring audits (as in direct install programs) provide an opportunity to educate customers about energy efficiency and other initiatives.
- The relationship between the cost of efficiency and the cost of supply may change due to changes in avoided costs or updates to savings assumptions.
- Continuity of programs is important for achieving long-term efficiency, greenhouse gas mitigation objectives, and workforce development.
- There is a low risk to ratepayers from investment in passive energy efficiency measures as savings and benefits from measures installed in 2025 will persist for many years.

- Energy efficiency avoids lost opportunities for future cost savings.
- The programs contribute to the equitable delivery of services and benefits.
- The rate impacts of continuing these programs are modest for non-participants.
- Projected ratepayer investment needs may decline as funding from other sources is still being pursued for 2025.

Q. DO YOU THINK THAT THIS RATIONALE IS SOUND?

A. Yes, I agree with this rationale.

Q. DO YOU THINK THAT THIS RATIONALE SUPPORTS CONTINUED INVESTMENT IN THE PROGRAMS THAT ARE NOT COST-EFFECTIVE UNDER THE UPDATED COST OF SUPPLY CALCULATIONS?

A. Yes, I agree that these programs should continue to be funded based upon this rationale.

Q. DO YOU THINK ANY OF THIS RATIONALE FOR PROGRAM CONTINUITY IS PARTICULARLY NOTEWORTHY?

A. Yes, in my opinion, the most noteworthy rationale is:

- Contribution to the equitable delivery of services and benefits: Income-eligible programs are not cost-effective using the updated cost of supply calculation and it is important to continue to support energy efficiency for low-income customers.

- Supports state goals of the *Act on Climate*: Measures with delivered fuels savings are a key driver of the lack of cost-effectiveness under the updated cost of supply calculation and, as stated on Bates page 138, "Efficiency measures for delivered fuels provide some of the highest levels of GHG mitigation per dollar spent across all measures and programs."

- Avoidance of lost opportunities for future cost savings: Delivered-fuel home weatherization is a driver of the lack of electric program cost-effectiveness under the updated cost of supply calculation and, as stated on Bates page 137, "If a customer electrifies in the future, the benefits of delivered fuel weatherization upgrades would likely become electricity system benefits within the life of the measure and research has shown that residential customers who heat with delivered fuels are more likely to electrify their heat than the average customer."

Q. IS THE *EE PLAN* TRANSPARENT REGARDING THE AVOIDANCE OF LOST ELECTRIC SYSTEM OPPORTUNITIES?

A. No, the *EE Plan* does not illustrate certain avoided lost electric system opportunities. The electric and gas benefit-cost models for the *EE Plan* do not break out weatherization 'with electrification' and 'without electrification.' The Clean Heat RI and HER programs require weatherization for income-eligible customers who want to electrify. This approach leads to greater electric system savings as the weatherization will reduce heating as well as cooling loads, when compared to scenarios without electrification. RIE confirms that it will not track delivered-fuel home weatherization required or

recommended by OER's Clean Heat RI and HER electrification programs in 2025.[16,17] RIE confirms that heating savings are based on the heating fuel that the customer uses at the time of weatherization and does not include heating electric savings that may be realized by customers who electrify at or around the time of weatherization.[18]

Q. IS THE *EE PLAN* ACCURATE REGARDING THE AVOIDANCE OF LOST ELECTRIC SYSTEM OPPORTUNITIES?

A. No, the *EE Plan* understates the avoided lost electric system opportunities. Lost opportunities refer to the ability to save more electricity and grid upgrade costs when homes are weatherized sooner and at or around the time of electrification, as electrification without weatherization would increase winter peak loads more than necessary and increase the electricity grid investment costs for all ratepayers. Another lost opportunity is the ability to downsize a future heating system replacement. RIE assumes that delivered-fuels customers who weatherize do not electrify over the life of the measure, which is 20 years. This is not accurate as some customers are weathering as a prerequisite for electrification funding. There is also the potential for customers who are not electrifying now to do so in the next 20 years.

[16] Responses to Division's Second Set of Data Requests to RIE. Division 2-12(d). November 7, 2024.
[17] Responses to Division's Second Set of Data Requests to RIE. Division 2-14(f). November 7, 2024.
[18] Responses to Division's Second Set of Data Requests to RIE. Division 2-21. November 7, 2024.

Q. WHAT FINDINGS DO YOU HAVE WITH REGARD TO CHANGES TO THE CALCULATION OF THE COST OF SUPPLY?

I find that these calculations do not accurately incorporate the avoided electric system costs associated with delivered-fuel home weatherization projects with electrification at or near the time of weatherization. Greater accuracy and transparency around delivered-fuel home weatherization projects 'with electrification' and 'without electrification' can also help to improve coordination between RIE's *EE Plan* and OER's Clean Heat RI, HEAR, and HER programs.

5. COORDINATION BETWEEN RIE'S *EE PLAN* AND OER'S CLEAN HEAT RI, HEAR, AND HER PROGRAMS

Q. DO OER'S CLEAN HEAT RI, HEAR, AND HER PROGRAMS FUND DELIVERED-FUEL HOME WEATHERIZATION?

A. No, OER's Clean Heat RI[19], HEAR[20], and HER[21] programs do not support weatherization of homes using delivered fuels. OER is using all federal IRA funding to support electrification.

[19] Clean Heat RI provides incentives for customers to adopt heat pumps for air and water heating and cooling. More detail on program incentives is available at: https://cleanheatri.com/resources/incentives/

[20] HEAR supports adoption of ENERGY STAR certified heat pump clothes dryers, electric stoves, ranges, ovens, or induction cook tops, electric wiring, and electric load service centers. More detail on program incentives is available at: https://energy.ri.gov/sites/g/files/xkgbur741/files/2024-09/HEAR%20Flier%20Final_0.pdf

[21] As proposed, HER will enable the existing Clean Heat RI program to serve low-income multifamily customers. More detail on the proposed program is available at: https://energy.ri.gov/sites/g/files/xkgbur741/files/2024-07/HER%20Public%20Information%20Meeting.pdf

Q. DO OER'S CLEAN HEAT RI, HEAR, AND HER PROGRAMS INTERACT WITH RIE'S ENERGY EFFICIENCY PROGRAMS?

A. Yes, OER's Clean Heat RI and HER programs support weatherization of homes with delivered fuels prior to electrification, because OER's programs require weatherization for income-eligible customers and recommend weatherization for all other customers. RIE states that OER will refer customers who want to weatherize prior to electrifying to the appropriate Community Action Program or to RIE's energy efficiency programs.[22]

Q. IS RIE'S *EE PLAN* FULLY COORDINATED WITH OER'S CLEAN HEAT RI, HEAR, AND HER PROGRAMS?

A. No. Though RIE and OER are making progress, coordination between RIE's *EE Plan* and OER's Clean Heat RI, HEAR, and HER programs continues to be a work in progress. RIE states that it plans to make customers aware of Clean Heat RI, HER, and HEAR funding using Home Energy Reports, but will not mention the weatherization requirements and recommendations associated with OER's electrification funding in these communications.[23]

RIE asserts that its delivered-fuel home weatherization quantities are sufficient to cover the demand for this measure in 2025.[24,25] However, RIE indicates that it does not have a projection of the number of delivered-fuel home weatherization projects associated with

[22] Responses to Division's Second Set of Data Requests to RIE. Division 2-12(c). November 7, 2024.
[23] Responses to Division's Second Set of Data Requests to RIE. Division 2-24. November 7, 2024.
[24] Responses to Division's Second Set of Data Requests to RIE. Division 2-9. November 7, 2024.
[25] Responses to Division's Second Set of Data Requests to RIE. Division 2-13. November 7, 2024.

OER's Clean Heat RI and HER programs.[26,27] OER also does not provide this projection.[28] RIE should work with OER to develop and incorporate projections of quantities, budgets, and savings associated with delivered-fuel home weatherization projects that electrify around the time of weatherization as well as delivered-fuel home weatherization projects that do not electrify right away. The assumptions around the timing of electrification in both instances should be clearly documented.

RIE's delivered-fuel home weatherization savings methodology is inaccurate for homes that also electrify. It is important to improve these savings estimates, as an electrified home that is also weatherized offers electric savings that mitigate grid impacts associated with electrification.

OER provides a link to the Clean Heat RI dashboard, which reports program performance to date.[29,30] While the dashboard reports lifetime carbon dioxide emissions saved in tons, it does not report energy savings. As a result, it is not clear how much electricity and delivered fuels savings accrue to homes heated by delivered fuels that weatherize and electrify around the same time. Development of a methodology to attribute weatherization savings to RIE and electrification savings to OER can improve RIE's and

[26] Responses to Division's Second Set of Data Requests to RIE. Division 2-12(d). November 7, 2024.
[27] Responses to Division's Second Set of Data Requests to RIE. Division 2-14(f). November 7, 2024.
[28] Responses to Division's First Set of Data Requests to OER. Division 1-5. November 7, 2024.
[29] Responses to Division's First Set of Data Requests to OER. Division 1-10. November 7, 2024.
[30] Available at: https://energy.ri.gov/heating-cooling/clean-heat-ri/clean-heat-rhode-island-statistics

OER's reporting and ensure that savings for projects that include both measures are not missing or double-counted when aggregated at the state level.

6. RECOMMENDATIONS

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

A. I recommend that the Commission:

- Approve the *EE Plan*, including programs that are not cost-effective under the updated cost of supply calculation because the justification for continuing these programs is valid.

- Direct RIE to support OER in encouraging customers using delivered fuels to weatherize at the time of electrification because it is in the interest of electric ratepayers. In its communications, RIE should promote OER's electrification programs, emphasize the importance of weatherization for customers considering electrification, and point customers to RIE's programs for support.

- Direct RIE to track, report, and break out weatherization projects for delivered-fuel homes with electrification versus without electrification. RIE should work with OER to include a projection of the number of customers referred by OER to RIE for weatherization prior to electrification.

- Direct RIE to accurately account for electric and delivered fuels savings for delivered-fuel home weatherization combined with electrification. The costs and benefits of

weatherization and electrification should be reported separately, such that RIE and OER can report the costs and benefits associated with their efforts without missing or duplicating data. The assumptions about the timing of electrification for customers who do not electrify immediately after weatherizing should align with the electrification trajectory of delivered fuels heating customers in the state, per the *Act on Climate* goals and the projected participation in OER's Clean Heat RI and HER programs.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Jennifer Kallay, Principal Associate

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PROFESSIONAL EXPERIENCE

Synapse Energy Economics, Inc., Cambridge, MA. *Principal Associate*, April 2023 – Present; *Senior Associate*, June 2013 – April 2023; *Associate,* July 2008 – June 2013; *Research Associate*, January 2007 – July 2008.

More than 15 years of experience researching and analyzing distributed energy resource plans, program design and performance; funding and incentive mechanisms; and cost-effectiveness screening to achieve policy goals in jurisdictions in the United States and Canada.

- Improves grid resilience planning and practices through work on goal setting, scoping, evaluation and prioritization criteria, performance monitoring and incentives, regulatory approaches, and cost recovery mechanisms.
- Assesses the disparate impacts of electric and natural gas infrastructure on economic, social, and health outcomes and identifies and evaluates solutions for improving energy equity.
- Leads stakeholder workshops to provide context on regulatory practices and opportunities for public engagement, collect public input, and integrate public input into electric and gas system regulation and planning.

Boston University's Center for Energy and Environmental Studies, Boston, MA. *Research Assistant for Professor Robert Kaufmann*, January 2006 – January 2007.

Modeled land-use change in the Amazon using spatial, economic, climatic, and physical variables, and GIS and regression techniques.

Digitas, Inc, Boston, MA. *Manager*, November 1999 – August 2005.

Researched, designed, and executed reporting solutions to assess the effectiveness of marketing strategies based on consumer behavior. Customized analyses to gain insight into environmental influences on marketing performance and designed and built models to predict sales/revenue and inform business economics using relational databases.

PROFESSIONAL ACTIVITIES

Gas and Light Commissioner. *Elected Public Official*. 2018-present. Serves on Wakefield Massachusetts' Municipal Gas and Light Department Board of Commissioners.

EDUCATION

Boston University, Boston, MA
Master of Arts in Energy and Environmental Analysis, Spring 2007. Graduate course work in multivariate statistical analysis, environmental economics, risk assessment, energy, GIS, climate change, and environmental policy.

University of Maryland, College Park, MD
Bachelor of Arts in Journalism, Spring 1999. Presidential Scholarship and Honors Program.

PUBLICATIONS

Synapse Energy Economics, Climable, Brown University Climate and Development Lab. 2023. *Power Play: Actions for New England's Equitable Energy Transition.* Full report. Climable.org.

Rickerson, W., E. Brousseau, A. Douglas, J. Kallay, S. Singh Walker, A. Hopkins, A. Napoleon, K. Takahashi. 2022. *Future Proofing the Texas Grid with Distributed Energy Resources*. Prepared by Converge Strategies and Synapse Energy Economics for the Texas Advanced Energy Business Alliance.

Kallay, J., S. Liburd, E. Camp, S. Singh, T. Woolf, J. Hall. 2022. *A Better New England Regulatory Framework for Mitigating Climate Change.* Synapse Energy Economics for Brown University.

Kallay, J., A. Napoleon, K. Takahashi, E. Sinclair, T. Woolf. 2021. *Opportunities for Evergy Kansas to Address Energy Equity Within its Integrated Resource Plan and Other Planning Processes*. Synapse Energy Economics for Union of Concerned Scientists.

Kallay, J., A.S. Hopkins, C. Odom, J. Ramey, J. Stevenson. R. Broderick, R. Jeffers, B. Garcia. 2021. *The Quest for Public Purpose Microgrids for Resilience: Considerations for Regulatory Approval.* Synapse Energy Economics for Sandia National Labs.

Kallay, J., A. Napoleon, J. Hall, B. Havumaki, A. Hopkins, M. Whited, T. Woolf, J. Stevenson, R. Broderick, R. Jeffers, B. Garcia. 2021. *Regulatory Mechanisms to Enable Investments in Electric Utility Resilience.* Synapse Energy Economics for Sandia National Laboratories.

Kallay, J., S. Letendre, T. Woolf, B. Havumaki, S. Kwok, A. Hopkins, R. Broderick, R. Jeffers, K. Jones, M. DeMenno. 2021. *Application of a Standard Approach to Benefit-Cost Analysis for Electric Grid Resilience Investments.* Synapse Energy Economics for Sandia National Laboratories.

Kallay, J., A. Napoleon, B. Havumaki, J. Hall, C. Odom, A. Hopkins, M. Whited, T. Woolf, M. Chang, R. Broderick, R. Jeffers, B. Garcia. 2021. *Performance Metrics to Evaluate Utility Resilience Investments*. Synapse Energy Economics for Sandia National Laboratories.

Kallay, J., A. Hopkins, A. Napoleon, B. Havumaki, J. Hall, M. Whited, M. Chang., R. Broderick, R. Jeffers, K. Jones, M. DeMenno. 2021. *The Resilience Planning Landscape for Communities and Electric Utilities.* Synapse Energy Economics for Sandia National Laboratories.

Napoleon, A., J. Hall, J. Kallay, M. Chang, P. Eash-Gates, N. L. Seidman, C. James, D. Torre, D. Brutkoski, J. Migden-Ostrander, K. Colburn, K. Maddux, D. Harlow, M. Power. 2020. *Energy Infrastructure: Sources of Inequities and Policy Solutions for Improving Community Health and Wellbeing*. Synapse Energy Economics, Regulatory Assistance Project, and Community Action Partnership for the Robert Wood Johnson Foundation.

Knight, P. J. Frost, J. Kallay. S. Letendre. J. Hall. 2020. *Assessing the Impacts Climate Change May Have on Maine's Economy, Revenues, and Investment Decisions*. Synapse Energy Economics and Eastern Research Group for the State of Maine's Department of the Governor's Office of Policy Innovation and the Future.

Napoleon, A., J. Kallay, K. Takahashi. 2020*. Utility Energy Efficiency and Building Electrification Portfolios Through 2025: A Brief on the New York Public Service Commission's Recent Order.* Synapse Energy Economics for the Natural Resources Defense Council.

Kallay, J., A. Hopkins, J. Frost, A. Napoleon, K. Takahashi, J. Slason, G. Freeman, D. Grover, B. Swanson. 2019. *Net Zero Energy Roadmap for the City of Burlington, Vermont*. Synapse Energy Economics and Resource Systems Group for Burlington Electric Department.

Napoleon, A., T. Woolf, K. Takahashi, J. Kallay, B. Havumaki. 2019. *Comments in the New York Public Service Commission Case 18-M-0084: In the Matter of a Comprehensive Energy Efficiency Initiative.* Comments related to NY Utilities report regarding energy efficiency budgets and targets, collaboration, heat pump technology, and low- and moderate-income customers and requests for approval. Prepared by Synapse Energy Economics on behalf of Natural Resources Defense Council.

Allison, A., A. Napoleon, J. Kallay. 2019. *Maine Low-Income Home Energy Burden Study.* Synapse Energy Economics for the Maine Office of the Public Advocate.

Havumaki, B., J. Kallay, K. Takahashi, T. Woolf. 2019. *All-Electric Solid Oxide Fuel Cells as an Energy Efficiency Measure.* Synapse Energy Economics for Bloom Energy.

Takahashi, K., B. Havumaki, J. Kallay, T. Woolf. 2019. *Bloom Fuel Cells: A Cost-Effectiveness Brief.* Synapse Energy Economics for Bloom Energy.

Kallay, J., A. Napoleon. 2019. Comments and Revised Comments on EfficiencyOne's Proposed Enhancements to its Rate and Bill Impact Model. Synapse Energy Economics for the Nova Scotia Utility and Review Board.

Hall, J., R. Wilson, J. Kallay. 2018. *Effects of the Draft CAFE Standard Rule on Vehicle Safety*. Prepared by Synapse Energy Economics on behalf of Consumers Union.

Whited, M., J. Kallay, D. Bhandari, B. Havumaki. 2018. *Driving Transportation Electrification Forward in Pennsylvania: Considerations for Effective Transportation Electrification Ratemaking*. Synapse Energy Economics for Natural Resources Defense Council.

Synapse Energy Economics, 2017. *Massachusetts Green Communities Program: 2016 Progress Report.* Prepared for Massachusetts Department of Energy Resources. Available at: https://www.mass.gov/files/documents/2018/03/12/gc-2016-progress-report.pdf.

Kallay, J., A. Napoleon, M. Chang. 2016. *Opportunities to Ramp Up Low-Income Energy Efficiency to Meet States and National Climate Policy Goals*. Synapse Energy Economics.

Napoleon, A., K. Takahashi, J. Kallay, T. Woolf. 2016. "Evaluation, Measurement, and Verification in Virginia." Memorandum prepared by Synapse Energy Economics for Clean Energy Solutions Inc., Virginia Energy Efficiency Council, and Virginia Department of Mines, Minerals and Energy.

Kallay, J., K. Takahashi, A. Napoleon, T. Woolf. 2015. *Fair, Abundant, and Low-Cost: A Handbook for Using Energy Efficiency in Clean Power Plan Compliance.* Synapse Energy Economics for the Energy Foundation.

Woolf, T., K. Takahashi, E. Malone, A. Napoleon, J. Kallay. 2015. *Ontario Gas Demand-Side Management 2016-2020 Plan Review.* Synapse Energy Economics for the Ontario Energy Board.

Stanton, E. A., P. Knight, J. Daniel, B. Fagan, D. Hurley, J. Kallay, E. Karaca, G. Keith, E. Malone, W. Ong, P. Peterson, L. Silvestrini, K. Takahashi, R. Wilson. 2015. *Massachusetts Low Gas Demand Analysis: Final Report.* Synapse Energy Economics for the Massachusetts Department of Energy Resources.

IEA. 2014. *Capturing the Multiple Benefits of Energy Efficiency*. Expert advisor on Chapter 6. Energy Delivery.

Brockway, N., J. Kallay, E. Malone. 2014. *Low-Income Assistance Strategy Review*. Synapse Energy Economics for the Ontario Energy Board.

Woolf, T., E. Malone, J. Kallay. 2014. *Rate and Bill Impacts of Vermont Energy Efficiency Programs.* Synapse Energy Economics for the Vermont Public Service Department.

Woolf T., E. Malone, J. Kallay, K. Takahashi. 2013. *Energy Efficiency Cost-Effectiveness Screening in the Northeast and Mid-Atlantic States.* Synapse Energy Economics for Northeast Energy Efficiency Partnerships, Inc. (NEEP).

Woolf T., J. Kallay, E. Malone, T. Comings, M. Schultz, J. Conyers. 2012. *Commercial & Industrial Customer Perspectives on Massachusetts Energy Efficiency Program.* Synapse Energy Economics for Massachusetts Energy Efficiency Advisory Council.

Fisher J., J. Levy, Y. Nishoka, P. Kirshen, R. Wilson, M. Chang, J. Kallay, C. James. 2010. *Co-Benefits of Energy Efficiency and Renewable Energy in Utah*. Synapse Energy Economics for State of Utah Energy Office.

Hurley D., K. Takahashi, B. Biewald, J. Kallay, R. Maslowski. 2008. *Cost and Benefits of Electric Utility Energy Efficiency in Massachusetts*. Synapse Energy Economics for Northeast Energy Efficiency Council.

Schlissel D., L. Johnston, J. Kallay, C. James, A. Sommer, B. Biewald, E. Hausman, A. Smith. 2008. *Don't Get Burned: The Risks of Investing in New Coal-Fired Generating Facilities*. Synapse Energy Economics for Interfaith Center on Corporate Responsibility.

Swanson C., R. Hornby, J. Kallay. 2007. *Avoided Gas Supply Costs in New York*. Synapse Energy Economics for Keyspan Energy.

Hornby R., C. Swanson, M. Drunsic, D. White, P. Chernick, B. Biewald, J. Kallay. 2007. *Avoided Energy Supply Costs in New England: 2007 Report*. Synapse Energy Economics for Avoided-Energy-Supply-Component (AESC) Study Group.

Takahashi K., B. Biewald, L. Johnson, J. Kallay. 2007. *Greenhouse Gas Reduction Strategies of Electric and Gas Companies in North America*. Synapse Energy Economics for Tokyo Gas.

TESTIMONY

New Brunswick Energy and Utilities Board (Matter No. 552): Direct Testimony regarding the Review of New Brunswick Power's 2024/25 to 2026/27 DSM Program Initiatives Update in New Brunswick Power's 2024–2025 General Rate Application. On behalf of the New Brunswick Energy and Utilities Board Staff, March 28, 2024.

Rhode Island Public Utilities Commission (Docket 23-35-EE): Direct Testimony regarding the Narragansett Electric Co. d/b/a Rhode Island Energy's 2024-2026 Energy Efficiency Three-Year Plan and Annual Energy Efficiency Plan for 2024. On behalf of the Division of Public Utilities and Carriers, November 10, 2023.

New Mexico Public Regulation Commission (Case No. 22-00232-UT): Direct Testimony regarding New Mexico Gas Company's application for approval of its 2023-2025 Energy Efficiency Program. On behalf of the Office of the Attorney General, November 2022.

Rhode Island Public Utilities Commission (Docket 22-33-EE): Direct Testimony regarding the Narragansett Electric Co. d/b/a Rhode Island Energy's Annual Energy Efficiency Plan for 2023. On behalf of the Division of Public Utilities and Carriers, November 4, 2022.

Rhode Island Public Utilities Commission (Docket 5189): Direct Testimony regarding the Narragansett Electric d/b/a National Grid's 2022 Energy Efficiency Plan (EEP). On behalf of the Division of Public Utilities and Carriers, November 17, 2021.

Rhode Island Public Utilities Commission (Docket 5076): Direct Testimony regarding the Narragansett Electric d/b/a National Grid's 2021-2023 Energy Efficiency Program Plan (Three-Year Plan) & 2021 Annual Energy Efficiency Program (EEP) Plan. On behalf of the Division of Public Utilities and Carriers, November 12, 2020.