Advancing the Clean Energy Future

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Luly E. Massaro, Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

Re: Docket No. 5076 – National Grid – 2021 Energy Efficiency Program and 2021-2023 Three-Year Plan

Dear Ms. Massaro:

Thank you, on behalf of Acadia Center, for the opportunity to provide comments on the 2021 Energy Efficiency Plan ("the Annual Plan" or "the 2021 Plan") and the 2021-2023 Plan ("the Three-Year Plan or "3YP") in Docket No. 5076. Acadia Center is a non-profit research and advocacy organization committed to advancing the clean energy future and is at the forefront of efforts to build clean, low-carbon, and consumer-friendly economies.

Acadia Center participated in the development of the 2021 and 2021-2023 Plans through the Energy Efficiency Technical Working Group (EETWG), which includes a variety of stakeholders and advocates. Acadia Center cannot overstate the value of using a robust, collaborative stakeholder process to leverage diverse areas of expertise and incorporate a broad array of priorities into a plan advancing proven climate solutions. Acadia Center encourages National Grid to expand the membership of the EETWG to include additional environmental and consumer advocates, environmental justice leaders, business interests, and efficiency vendors to help identify and evaluate new strategies to further improve the energy efficiency programs.

Energy efficiency delivers consumer, economic and environmental benefits. Without the energy efficiency investments in the 2021 Annual Plan, Rhode Islanders would have to spend an extra $121 million on electricity supply and an extra $14 million on natural gas supply. According to the Annual Plan, the investments made in energy efficiency to achieve these savings are projected to add $341.8 million to Rhode Island's state gross domestic product and generate total benefits of more than $751 million over the life of the measures. The projected lifetime energy savings from the Annual Plan will also avoid 873,292 tons of carbon pollution from entering the atmosphere. In short, energy efficiency continues to represent a tremendous value for ratepayers and reinforces the fact that investments in the environment spur near- and long-term economic growth.

While the Annual Plan is laudable in continuing to build incrementally upon the foundation and execution of past individual plan years, the recent Market Potential Study conducted on behalf of the state identified significant opportunity for additional cost-effective energy savings. In the 2021 Annual Plan and 2021-2023 Three-Year Plan, National Grid proposes achieved savings levels substantially lower than the levels of all potential cost-effective energy efficiency identified by the Market Potential Study. Specifically, National Grid's proposed lifetime savings for 2021 Annual Plan measures are 51 percent (electric) and 56 percent (gas) below the 2021 lifetime savings targets approved by the Energy Efficiency and Resource Management Council (EERMC) and Public Utilities Commission in Docket 5023.[i]

National Grid notes there are perceived and actual constraints to rapidly escalating energy efficiency program investments to meet the maximum savings potential , including workforce training and prevailing economic conditions. Energy efficiency investments are themselves a vital part of economic recovery efforts as these measures create good paying, local, sustainable careers and deliver improvements that provide near- and long-term economic relief for all Rhode Island energy customers. National Grid has and can continue to use its considerable resources and levers to directly influence workforce development through proposed investments and continued collaboration with relevant industry partners. National Grid has long observed that savings opportunities from the lighting transition will soon diminish as those measures achieve saturation. Achieving deeper energy savings will necessarily require new programs and a new approach to treat buildings holistically and deliver a broad set of energy, environmental, and consumer benefits.

Next Generation Energy Efficiency

The buildings in which we live and work are a main driver of energy use and greenhouse gas emissions. In Rhode Island, building heating, cooling, lighting, and operations are responsible for over a third of greenhouse gas emissions. At the city level, the building sector is often the single largest contributor of climate pollution. Rhode Island has made significant progress over the past several decades in driving energy savings through energy efficiency, but not all ratepayers have benefitted from the same access to savings and benefits. Now is the time for the state to shift to a new framework of efficiency—one that is not only focused on energy savings, but is also centered around climate, environmental justice, and electrification. Acadia Center is calling this transition Next Generation Energy Efficiency.

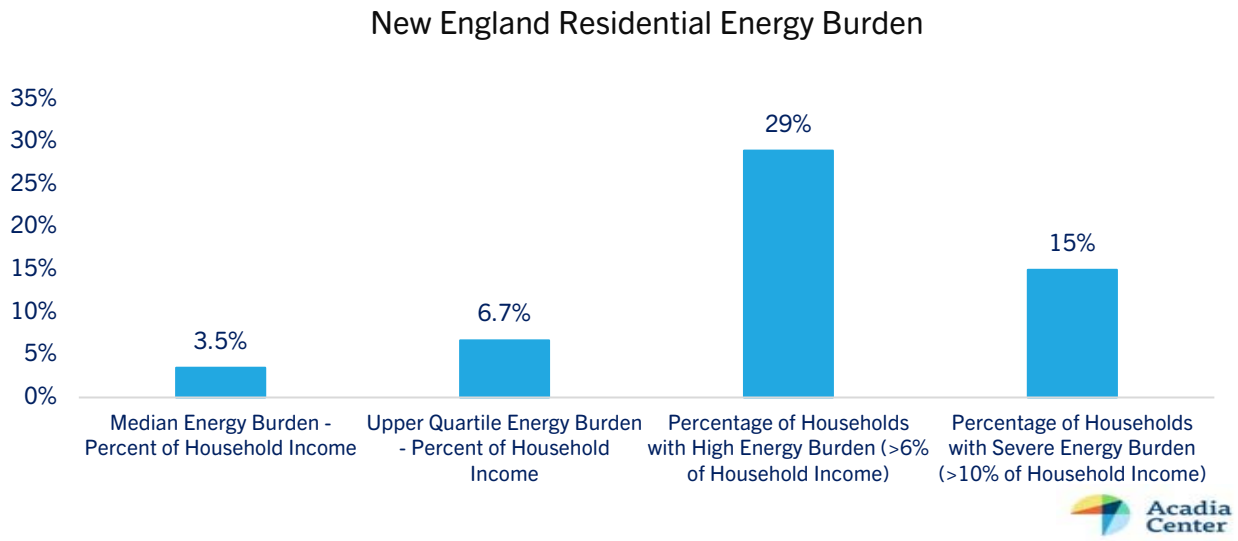
Next Generation Energy Efficiency is the next major phase for energy efficiency in Rhode Island. Now is the time to evaluate how laws, rules, and stakeholder systems should evolve to embrace climate mitigation; remove barriers to underserved building stock typically occupied by lower-income residents in historically disadvantaged communities; shift to whole-house electrification; and continue to grow efficiency as a state and regional energy resource.

Prioritize Poorer Quality Housing

Energy efficiency must be at the center of addressing the region's old housing stock. The most underserved populations (including low and moderate income, renters, and non-English speaking) tend to live in poorer quality housing with pre-weatherization barriers or absentee landlords, preventing them from being treated by efficiency programs. These communities are most affected by long-standing environmental justice issues, and the buildings they inhabit damage their health, waste money, and emit pollutants at high levels.

National Grid can leverage its expertise in program administration to coordinate improvements across traditional utility programs and other public health, safety, and environmental initiatives to better address identified pre-weatherization barriers to energy efficiency. Using all of the Company's considerable levers and resources, these programs can help unlock additional energy efficiency savings in historically underserved communities and deliver benefits in a more equitable manner.[ii] It is equally critical the Company, state agencies, and stakeholders identify, track, and address any and all perceived and actual barriers to energy efficiency implementation and design future plans to overcome these challenges to meet Rhode Island's full potential for conservation.

Existing benefit-cost methodologies must also incorporate more comprehensive climate, equity, and health benefits from building retrofits. Because efficiency treatment of poorer building stock is more expensive and entails longer payback periods, current benefit-cost tests and the focus on highest possible energy savings have slowed treatment of retrofits. Next Generation Energy Efficiency will identify reforms needed to fully account for all of the customer benefits that retrofits and electrification improvements deliver, including health and safety, as well as emissions reductions and reductions in residential energy burdens, as demonstrated in the figure below.



Source: American Council for an Energy Efficient Economy, "How High Are Household Energy Burdens?", September 2020

Prioritize Clean Heating and Whole-House Electrification

If deployed together, energy efficiency and electrification can deliver greater emissions reductions while improving indoor air quality—both important ratepayer benefits. Electric appliances are much more energy efficient than fossil fuel-powered counterparts and reduce indoor air pollutants. To better align efficiency programs and electrification, Acadia Center recommends:

- Legislative and regulatory changes to allow efficiency programs to provide fuel-neutral, or even electricity-favoring, incentives for clean heating and cooling systems and weatherization.
- Changes in how the programs are administered to better align efficiency and electrification and ensure co-delivery of building upgrades that are currently delivered in silos.
- Electrification retrofit pathways for residential, commercial, and industrial buildings in future annual and three-year efficiency plans.
- Efficiency programs should pursue and incorporate the values of grid system benefits by better aligning electrification and advanced home controls to enable flexible demand response programs—heat pumps can provide cooling more efficiently than traditional window units and can be enrolled in demand response programs.
- New metrics to value electrification and retrofits, as well as materials that illustrate innovative financing and remodeling ideas for retrofits older housing units.

- Rate designs that capture the full benefits and opportunities of building electrification, particularly in a future that may include advanced metering functionality and time of use opportunities.

The Rhode Island Heating Sector Transformation Report noted electrification is a critical pathway to decarbonization of the buildings sector. Rhode Island must address the uncertainty in its heating electrification pathway caused by: 1) the PUC's Docket 4979 rejection of incentives for electrification of delivered fuels customers, 2) the delay in state budget processes affecting the temporary heat pump incentives supported by 2020 allocations of Regional Greenhouse Gas Initiative (RGGI) funds, and 3) utility and state agency opposition to heat pump incentive eligibility for National Grid's gas customers. Acadia Center strongly urges all stakeholders, state agencies, and the Public Utilities Commission to revisit the heat pump decision in Docket 4979 and to establish a long-term sustainable program to electrify and decarbonize the heating sector. Switching from delivered fuels to natural gas delivers limited energy efficiency and emissions savings, particularly when methane leakage is considered. Meanwhile, heat pumps are 300 percent more energy efficient than even the best gas furnaces. [iii]Rhode Island should instead support a moratorium on new gas connections and establish a robust and reliable heat pump transition program[iv] to meet climate goals and make our communities safer.

Ambition of Gas Savings Targets and Aquidneck Island Gas Capacity Study

Acadia Center is disappointed by National Grid's lack of gas savings ambition, particularly when the Company may soon propose significant gas infrastructure spending in another docket to meet a relatively minor gas constraint on Aquidneck Island.[v] The 2021 Annual Plan's proposed gas savings targets barely meet the low potential scenario identified by the Market Potential Study. National Grid proposes $38.6 million in gas-funded energy efficiency investments—just slightly above the study's "low" scenario of $36 million in 2021 gas program expenditures and well below the "mid" scenario of $57 million and "max" scenario of $90 million.

Notably, the 2021-2026 Market Potential Study notes, "under the low [potential] scenario, the bulk of natural gas savings come from the commercial sector, as shown in in figure E-6. However as incentives and enabling activities increase under the Mid and Max scenarios, savings from the residential sector grow at a much faster rate than other sections. Similar to electric efficiency measures, savings from the residential sector increase at a faster rate between the Low and Max scenarios relative to other sectors—suggesting the opportunity to increase savings by investing in new measures, higher incentives, and further enabling strategies is particularly pronounced in the residential sector for natural gas as well."[vi]

Further, the study notes "Natural gas savings will grow in importance in the energy efficiency portfolio. As natural gas consumption continues to increase in Rhode Island, so will the opportunity for efficiency savings. The study estimates there is continued room for savings growth – even under business-as-usual conditions. The opportunity for growing savings is particularly pronounced in the residential sector. While there is the potential for savings growth in all sectors, the relative opportunity for growth is much larger in the residential sector between business-as-usual conditions (i.e. the Low scenario) and Mid/Max compared to other sectors. For electric measures, residential savings increase by 79% to 134% under the Mid and Max scenarios relative to the Low scenario, respectively. For gas measures, residential savings increase by over 100% to 200% under the Mid and Max scenarios, respectively."[vii]

Before and instead of pursuing much more expensive and unnecessary gas-related infrastructure, National Grid should dig deeper to pursue higher energy efficiency program investments and achievements, including specific efforts to reduce peak gas demand on Aquidneck Island to resolve the Company's claimed peak constraint issue. National Grid should also accelerate the fulfillment of its System Reliability and Procurement Plan commitment to develop a non-pipelines alternative framework, before proposing significant expansion of gas infrastructure.

Continued Progress in Future Plans

In conclusion, the energy efficiency programs are vital programs to help Rhode Island's continued transition to a clean energy future. Energy efficiency remains the lowest-cost, cleanest energy resource available, and the 2021 Annual Plan builds upon the state's national leadership in delivering the benefits of energy efficiency to Rhode Island households and businesses. Acadia Center believes it is critical to look to the 2022 and 2023 Annual Plans as opportunities to achieve greater outcomes for all Rhode Islanders.

Respectfully,

Hank Webster
Rhode Island Director & Staff Attorney

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[i] Specifically, National Grid proposes 2021 electric-funded investments will achieve 1,306,562 net lifetime MWhs of lifetime energy savings compared to the 2,673,119 MWh in lifetime energy savings targets approved for the same program year in Docket 5023. Perhaps more problematic, National Grid proposes gas-funded investments in the 2021 Annual Plan will achieve 4,206,444 MMBtu in net lifetime energy savings compared to lifetime gas savings targets of 9,598,108 MMBtu approved by the PUC in Docket 5023.

[ii] National Grid notes "The Company has a powerful but limited set of levers available to increase program participation and thereby savings. The Company can directly change incentive levels and increase or decrease technical assistance and marketing. National Grid can also, working with partners, directly support broader education, awareness, workforce behavior and development, and installation quality. Most of these levers can be turned upwards to increase savings but will simultaneously increase cost and near-term surcharge requirements. Conversely, they can be turned down, which is likely to reduce near-term costs and surcharges, at the expense of both near-term, and potentially longer-term, savings." Plan Filing, Section 9.3, Page 89.

[iii] Clean Heating Pathways. Acadia Center. March 2020. Page 1.

[iv] Notably, Maine law signed June 2019 sets a goal of 100,000 heat pump installations over the next 5 years. https://database.aceee.org/state/maine#:~:text=One%20of%20Maine's%20primary%20electrification,Economic%20Security%20and%20Climate%20Objectives

[v] According to National Grid's Long Range Gas Capacity Study for Aquidneck Island, there may be a design hour gas constraint of 129 Dekatherm/hour based on current contractual limits with its transmission provider. Acadia Center

analysis finds this deficit could be erased with a combination of demand side measures at lower cost than many of National Grid's studied gas infrastructure proposals.

[vi] RI Energy Efficiency Market Potential Study (2021-2026). Page xix.

[vii] Infra. Page xxv.