

February 3, 2021

Acadia Center Testimony in Support of Senate Bill 78 The 2021 Act on Climate

Chairperson Euer and Members of the Senate Environment and Agriculture Committee,

Acadia Center is pleased to submit testimony in support of Senate Bill 78, the 2021 Act on Climate. Acadia Center is a non-profit research and advocacy organization committed to advancing the clean energy future. Acadia Center operates throughout the Northeast providing comprehensive advocacy and problem-solving through innovation, collaboration, and reliable solutions-oriented information.

Reducing Harmful Carbon Emissions Provides Local Benefits

Acadia Center supports Senate Bill 78 as a critical step in the continued efforts to decarbonize Rhode Island's economy and address the growing threat of the climate crisis. The Resilient Rhode Island Act of 2014 originally set aspirational goals for reducing greenhouse gas (GHG) emissions by 10% from 1990 levels by 2020, 45% from 1990 levels by 2035 and 80% from 1990 levels by 2050. The proposal in Senate Bill 78 would make these reduction targets binding and enforceable while also updating goals to better align with current technological capabilities and scientific understanding of the climate crisis' magnitude.

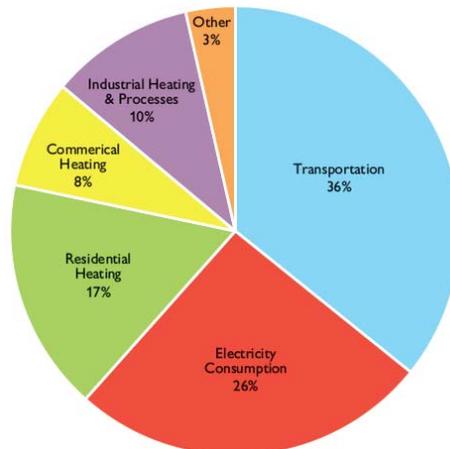
In particular, the original statutory goal of 45% emissions reduction for 2035 is brought forward to 2030, the goal of 80% emissions reductions by 2050 is brought forward to 2040. Finally, the goal for 2050 is updated to net zero emissions in alignment with the recommendations of the United Nations' Intergovernmental Panel on Climate Change. The bill also recognizes the 2050 goal may be met in part by counting carbon offsets to account for those final, marginal areas of our economy that may be difficult to decarbonize such as aviation fuels or those limited industrial processes which require high heat.

While S. 78 importantly sets goals for Rhode Island to do its part in reducing carbon emissions to fight global climate change, achieving these targets will also yield significant local health benefits. The combustion of fossil fuels like coal, natural gas, oil, gasoline, and diesel for any end use, is the leading environmental threat to pediatric health and equity.^j Fossil fuel use creates local air pollutants like sulfur dioxide, nitrogen oxides, particulate matter, and even the known carcinogen formaldehyde, which harm air quality and lead to increased cases of asthma, cardiovascular disease, and even premature death. These conditions drive up healthcare costs and lead to lost productivity due to sick days and doctor's visits.

Climate Planning

Equally important to S. 78’s updates to Rhode Island’s climate goals is the legislation’s requirement that the Executive Climate Change Coordinating Council (EC4) continue to track progress and regularly produce updated plans to continue driving down emissions. Consistent attention to and implementation of strategies, programs, and actions are necessary to successfully mitigate the impacts of climate change. The creation and publication of these plans on a consistent basis will also provide a critical level of predictability for businesses seeking to engage in Rhode Island’s clean energy industry and marketplace. As shown in Figure 1 below, carbon emissions largely result from the combustion of fossil fuels for transportation, building heating, and power generation, these plans should provide valuable sector-specific roadmaps while identifying cross-sector impacts.

Fig. 1: Rhode Island Greenhouse Gas Emissions By Sector (2016 data)ⁱⁱ



Power Generation

While Rhode Island has achieved important reductions in emissions attributable to the power generation sector, due in large part to the Regional Greenhouse Gas Initiative (RGGI) and nation-leading energy efficiency programs, much more work is needed. Passage of the Act on Climate will send a signal that Rhode Island is ready to achieve 100% Renewable Electricity by 2030 which will create local clean energy jobs and, ideally, reduce local fossil fuel power generation that disproportionately harms our state’s most vulnerable communities. State agencies will be tasked with creation of implementation plans to optimally reduce carbon emissions, including a revitalized effort to address key policy issues like responsible renewable energy siting, extension and expansion of net metering programs, and sizeable amplification of consumer-friendly energy efficiency and rooftop solar programs.

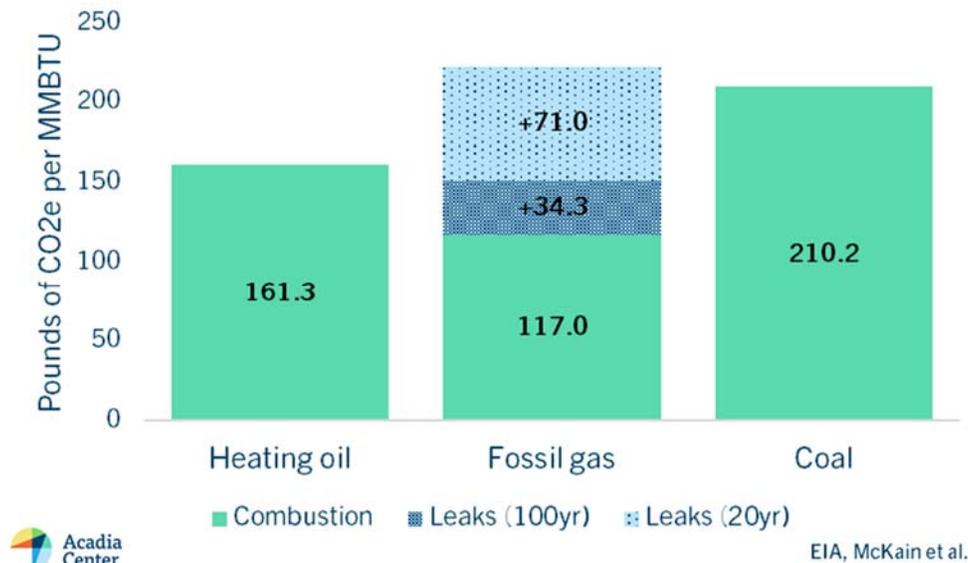
This overdue update to the Resilient Rhode Island Act will also help set the stage for additional efforts to cut emissions from two other key sectors of our economy—heating and transportation—which are not directly covered by the RGGI program. Fortunately, all the technology needed to implement systemic change is commercially available and can easily be adopted in Rhode Island with this important climate commitment from the General Assembly.

Heating

Residential and commercial heating account for approximately 25% of Rhode Island’s total GHG emissions. Including an additional 10% from combined industrial heating and processes brings the total to about a third of the state’s total GHG emissions.ⁱⁱⁱ The primary heating fuel in the state is so-called “natural” gas^{iv} which is primarily methane delivered via pipeline infrastructure into people’s homes and businesses. In addition to the local health impacts of fossil fuels described above, methane presents unique risks to public safety given its explosive qualities.

“Natural” gas also presents a dangerous climate problem by leaking a significant amount of methane directly into the atmosphere. Leaked or vented methane has a global warming potential in the first 20 years that is as much as 86 times as potent as the carbon dioxide that is produced from actually burning the fossil fuel.^v In fact, when accounting for methane leakage, gas distribution systems used for heating and industrial purposes may be even worse for the climate than heating oil or even coal, as demonstrated in Figure 2 below.

Fig. 2: Global Warming Potential of Fossil Gas, Accounting for Distribution System Leakage



As we gather and understand data about the ramifications of increased methane usage, it is appropriate to adjust emissions reductions goals to more accurately target necessary reductions. It is also vital to take further legislative and administrative actions to better help Rhode Islanders reduce their carbon footprint and exposure to risk by stopping the expansion of costly, unnecessary, and dangerous fossil gas infrastructure. State policies should instead rapidly accelerate the adoption of highly efficient electric heat pumps and other low- or no-carbon heating strategies like geothermal mini-districts. Moving away from fossil fuel combustion for heating purposes also presents a tremendous consumer opportunity to increase reliability and resiliency, gain greater predictability into heating bills, and lower maintenance and other operational costs.

Transportation

Transportation is the largest single sector of GHG emissions in Rhode Island comprising 36% of the total according to the DEM. Transportation has also been one of the most difficult sectors in which to reduce GHG emissions, requiring a coordinated response to deliver more low- or no-carbon mobility choices to Rhode Islanders.

The recently adopted Transit Master Plan, Bicycle Mobility Plan, as well as state's Clean Transportation and Mobility Innovation Report all signal that Rhode Island can significantly reduce transportation emissions by making more strategic investments to improve mobility. Rhode Island has fallen behind on its own Zero Emissions Vehicle (ZEV) commitments and has not funded its ZEV rebate program since 2017, despite the continued success and renewal of similar programs in neighboring states. Additionally, despite our state's population density and availability of public transportation in most towns and cities, transit ridership—a key strategy to reduce emissions and traffic congestion—also trails far behind neighboring states. Finally, Rhode Island has a unique opportunity as the smallest state in the Union to fully connect all of its towns, cities, and historic villages with bicycle- and pedestrian-friendly infrastructure. Prioritizing these popular active mobility pathways will not only enable residents to more safely travel using zero-carbon methods, but can also attract tourists seeking outdoor activities to explore our vibrant and storied state.

Climate Justice

The Act on Climate also takes important first steps to integrate Climate Justice into the state's efforts to reduce carbon emissions. As in other states, it is Rhode Island's frontline and frontline neighborhoods and communities of color that suffer disproportionately from the impacts of pollution and climate change. These citizens have been historically underrepresented in official decision-making processes that result in concentrated negative climate and health impacts—the highway that splits a community and deposits the emissions of thousands of trucks and cars; the fossil gas power plant and fossil fuel depot steps away from historic neighborhoods, and continued expansion of gas infrastructure that puts homes at risk every day. By including provisions that require the state to include input from affected communities and plan for an equitable transition to quality and family-sustaining clean energy jobs, Rhode Island can start addressing all aspects of climate change and protect its most vulnerable citizens.

Pass the Act on Climate

While Rhode Island continues to explore the specific strategies above, it is vitally important the General Assembly signal a strong commitment to emission reductions across all sectors by enacting Senate Bill 78 and adopt these updated targets for Rhode Island. This legislation is an opportunity for Rhode Island to jump start its economic recovery by sending a signal that our state is open for business and ready to look forward to the future rather than doubling down on the patterns of the past. Acadia Center urges the Committee to vote for passage of this legislation.

Sincerely,



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ⁱ Perera, Frederica. “Pollution from Fossil-Fuel Combustion is the Leading Environmental Threat to Global Pediatric Health and Equity: Solutions Exist.” *International journal of environmental research and public health* vol. 15,1 16. 23 Dec. 2017, doi:10.3390/ijerph15010016

ⁱⁱ RI DEM. 2016 RI Greenhouse Gas Emissions Inventory. Published 20 December 2019, pg. 9

ⁱⁱⁱ Ibid, pg. 7

^{iv} RI Renewable Thermal Market Development Strategy, Prepared for RI OER by Meister Consultants Group. Published January 2017, pg. 24.

^v Deeper Decarbonization in the Ocean State: The 2019 Rhode Island GHG Reduction Study. Published 12 September 2019, pg. 14.