November 10th, 2022

Terry Gray, Chairman RI Executive Climate Change Coordinating Council c/o RI Department of Environmental Management 235 Promenade Street Providence, RI 02908

RE: Public Comments on the 2022 Update to the Greenhouse Gas Emissions Reduction Plan's Priority Actions in the Electric, Transportation, and Thermal Sectors

Dear Chairman Gray,

Thank you for this opportunity to comment on the current draft chapters of the 2022 update to the Greenhouse Gas Emissions Reduction Plan ("the Plan") released on September 2, 2022. Green Energy Consumers Alliance is a nonprofit organization with a mission to harness the power of energy consumers to speed the transition to a low-carbon future. We respectfully submit the following comments.

Overarching

1. Publish emissions limits by subsector and the expected emissions reductions impact of each proposed strategy.

The draft chapters of the Plan list several policies to reduce greenhouse gas emissions (GHG) within each sector but fails to (a) list how much each sector will contribute to the overall, economy-wide emissions reduction requirement of 45% by 2030 and (b) delineate how much each will contribute to each sector's GHG emissions reductions. Without that level of granularity, we will not know if we are on track to reach each sector sublimit or which strategies are performing better or worse than expected. Rhode Island needs a greater level of specificity to monitor progress and course-correct over time.

2. Take full advantage of the Inflation Reduction Act (IRA).

The new federal law is a game changer. A top priority of state government should be to marshal resources to harvest all of the opportunities available through the IRA – grants, tax credits, and loans. It would be a worthwhile investment of state dollars to promote incentives for residential and business applications of solar, electric vehicles, heat pumps, storage, and more. We especially encourage the state to work with cities, towns, and nonprofit organizations to build community-based clean energy projects that could be financed by the Direct Pay provisions in the IRA. Direct Pay enables tax-exempt entities to receive financial benefits in lieu of tax credits (which require a tax appetite). Community-based projects of this type create a stronger economic development impact than projects financed through tax credits by Wall Street investors.

3. Adopt New Appliance Standards:

We recommend making adopting more aggressive appliance standards a cross-sector priority. Energy Efficient appliance standards require a minimum level of natural gas, electricity, and/or water efficiency

in appliances sold to consumers, ensuring that the least energy efficient products don't end up in Rhode Island homes. Efficient alternatives are often less expensive or only slightly more expensive than inefficient energy hogs, allowing for the added benefit of energy bill savings. We recommend staying in contact with the National <u>Appliance Standards Awareness Project</u> and the <u>Northeast Energy Efficiency</u> <u>Partnership</u> over time.

Electric Sector

We appreciate the priority actions of the 100% RES, modernizing the electric grid, deploying advanced metering, procuring offshore wind, and completing the Regional Greenhouse Gas Initiative Program Review. While these are significant and crucial steps to transitioning to 100% renewable energy and meeting the Act on Climate mandate, there is still more to be done.

We recommend supplementing the draft with these additional priority actions for the electric sector:

1. Continuing Investment and Achievement in Energy Efficiency Programs

We are concerned that the draft chapters consider energy efficiency as "complete" in the "Summary of Remaining Recommendations for the Electric Sector" table. We applaud the extension of least cost procurement but feel that greater investment and achievement in energy efficiency is necessary to improve ratepayer benefits and achieve climate goals.

According to the 2020 <u>Rhode Island Energy Efficiency Market Potential Study</u> energy efficiency measures "have the potential to reduce Rhode Island's carbon footprint by 539,000 to 879,000 short tons of carbon-dioxide equivalent (tCO2e) by 2026". However, Rhode Island's utilities energy efficiency plans fail to take full advantage of this emissions reduction potential. Therefore, we encourage EC4 to acknowledge the value and opportunity of energy efficiency by ensuring continued investment and achievement in these programs.

Additionally, the revenue generated from such programs should be allocated to energy efficiency investments rather than diverted to fund state operations or other climate action. While we recognize and appreciate that climate action is a crucial state priority, we urge other budget allocations to help the EC4 succeed. Energy efficiency funding is too crucial of an underpin in the clean energy transition and without it Rhode Island cannot achieve its climate goals.

2. Develop a Rhode Island-centric strategic plan for the role of energy storage and demand management.

Rhode Island can rely on the regional system for balancing energy supply with demand in the short term, but as the rest of New England decarbonizes, we will need to participate in developing solutions for balancing supply and demand, both in the short term and over longer time frames. Energy storage technologies will become increasingly critical to balance the timing of intermittent, non-dispatchable, renewable energy generation with electricity demand and build grid flexibility. Demand management capabilities can address the same problem on the opposite end, by shifting electricity demand toward times when supply is more available. Implementing both will improve reliability, reduce the need for polluting Peaker plants as backup generation, and reduce risk of curtailment of renewable energy generation.

3. Continue coordination with other New England states on transmission planning processes.

As renewable distributed generation resources become available across the region, we need to proactively plan transmission upgrades, especially as offshore wind starts to come online. New England will need anywhere from 302-433 gigawatts (GW) of offshore wind to power the economy by 2050, and it is possible more could be needed as energy demand increases to accommodate electrification of the transportation and heating sectors. A coordinated transmission approach is therefore critical to ramp up this game-changing clean energy solution in a timely, responsible, and cost-effective manner. Studies have found that a planned approach to offshore wind transmission could minimize costs to ratepayers, increase reliability, and minimize impacts to the environment and communities by reducing the amount of new transmission infrastructure needed. We urge you to continue collaborating with other New England states as regional transmission is crucial to facilitate energy decarbonization and renewable resource integration across the region.

4. Support municipal aggregation.

Earlier this year, Green Energy Consumers produced a report, "Greener Power at Lower Cost" that detailed the great results that aggregation has produced in Massachusetts in terms of both renewable energy and consumer savings. Rhode Island will begin seeing aggregations in operation in 2023. It would be cost-effective for Rhode Island state government to support communities that want to aggregate, by streamlining the approval process, offering planning support, and the like. We also see opportunities for Rhode Island to connect municipal aggregation with offshore wind projects. Legislation to that effect has been passed in Massachusetts.

Transportation Sector

The updated plan *must* adequately address the transportation sector, which is now the largest (and growing) source of greenhouse gas (GHG) emissions in Rhode Island. Reducing GHG gas emission in the transportation sector will result in significant co-benefits, as reducing combustion of fossil fuels also results in the reduction of the localized air pollution that harms human health. To reduce emissions in the transportation sector, Rhode Island must aggressively pursue a two-pronged approach: rapidly electrifying all vehicles (light, medium, and heavy-duty) on our roads AND reducing vehicle miles traveled by supporting walking, biking, public transit, and other alternatives to personally-owned vehicles.

Concerning the electrification of combustion vehicles, we urge you to:

1. Amend the 2027 goal of light-duty Zero Emission Vehicle (ZEV) penetration to 43%, to reflect the adoption of the Advanced Clean Cars II (ACCII) standard coming out of California, and commit to adopting all Californian advanced vehicle standards.

We are thrilled to see ACCII listed as a consideration in the draft chapters, as ACCII is the most powerful tool available to Rhode Island to increase ZEV adoption in the next decade. ACCII standards require automakers to steadily increase the percentage of vehicles they sell that are electric from 35% for model year 2026 to 100% for model year 2035. (You can see the required trajectory on this graph from the **California Air Resources Board.)**



By adopting ACCI, Rhode Island would reach 43% ZEV penetration by 2027, instead of the 30% proposed in these draft chapters.

New York recently announced that it will adopt ACCII, and Massachusetts has begun the regulatory proceedings to do so. Oregon and Washington state are in line as well. Each of these states has concluded that they cannot reach their economy-wide GHG reduction goals and mandates without adopting ACCII. Simply put, ACCII would produce the largest GHG reduction of any policy within the transportation sector.

Rhode Island is a small state with a small car market, but by joining its neighbors and California in adopting ACCII, Rhode Island can take advantage of these larger car markets to accelerate electric vehicle (EV) adoption to the pace necessary to meet our Act on Climate mandate.

We also want to point out that the adoption of ACCII is one of the most equitable policies available for reducing GHG in any sector because it is a policy directed at manufactures and would primarily affect consumers capable of purchasing a new vehicle. Data from many different sources show that most vehicles purchased in a state in any given time period are used and that new vehicle buyers have significantly above average incomes.

In addition, we strongly support the adoption of other standards coming out of California, specifically the Advanced Clean Trucks, Low NOx Heavy-Duty Omnibus, and Phase 2 Greenhouse Gas emissions standards.

2. Incentivize electric mobility and add incentives for smart charging to the list of tools for incentivizing the switch to a ZEV.

Green Energy Consumers supports the incentivization of ZEV purchases. In our nearly six years of running our <u>Drive Green</u> program, we have witnessed firsthand the importance of a state rebate in influencing consumer decisions. Such rebates will be particularly important this decade, as we wait for economies of scale to result in price parity between ZEV and combustion vehicles. We are glad to see

the inclusion of new *and* used, personal *and* fleet, light *and* heavy-duty vehicles, as well as e-bikes, in the proposed plan.

In addition to offering incentives for vehicle purchase, we urge the final Plan to call for time-of-use pricing and other price signals to encourage smart charging. Time-of-use pricing or off-peak charging rebates for ZEV drivers not only incentivize charging behavior that reduces the cost of maintaining the electric grid and emissions for all, it serves as yet another incentive for a driver to switch from a gas-powered car to an EV. National Grid for a time offered an off-peak charging rebate of 5 cents/kilowatt-hour (kWh) in the summer months and 3 cents/kWh in the winter months; Rhode Island Energy must be compelled to offer a similar program. However, any future program must account for all of the benefits of charging off peak (supply, transmission, distribution, reduced GHG emissions, etc.), which will result in a significantly higher off-peak discount. And because off-peak charging rebates are simply a true reflection of actual, real-time avoided costs, they offer a self-sustaining incentive program that does not require funding.

Off-peak charging rebates address *daily* peaks by encouraging drivers to only charge when demand (and therefore prices) are lower. Shifting load in this way on a daily basis smooths out the demand curve, which results in less steep ramp-up and ramp-down periods throughout the day and helps the grid run more efficiently. However, on *system* peak days – the ten or twenty days where demand is highest throughout the year – an additional tool is needed: active demand response. In such a program, an electric utility may stop or ramp down charging of EVs during peak moments to bring down overall demand. Reducing demand during these peak periods has an outsized impact in terms of both emissions and system costs. For that reason, we recommend both an off-peak charging rebate AND an active demand response program.

Finally, concerning the reduction of vehicle-miles-traveled, Green Energy Consumers Alliance was one of 36 organizations who signed onto a letter with recommendations on how to better Rhode Island's existing transportation system, with a particular eye to repairing the injustices of the past. Therefore, we urge the final Plan to:

3. Incorporate the suggestions of this <u>July 2022 letter</u>, particularly fully implementing the Transit Master Plan and the Bicycle Mobility Plan.

Thermal Sector

We feel that your listed priority actions in the thermal sector will fall short of meeting emissions reductions mandates and must be more aggressive. Regarding the priority action of 15% penetration of energy efficient electric heating by 2030, it is unclear where 15% came from and how much that would contribute to greenhouse gas emissions reductions. For comparison's sake, the <u>Massachusetts Clean</u> <u>Energy and Climate Plan</u> claims to reduce thermal sector emissions 49% by 2030. A major component for that sector was the installation of 1 million heat pumps by 2030, which would be about 37% of households in Massachusetts.

We would also like to see an estimate of how much greenhouse emission reductions will result from using biofuels, as well as where the supply would come from. We agree with the necessity of understanding the different emissions profiles of biofuels and requiring blending fuels with the lowest

emissions. We recommend using biofuel from waste grease, such as used animal fats and vegetable oils, as opposed to biofuel created from growing and harvesting crops, which produce emissions.

Additionally, we recommend making your priority action of "begin developing a renewable thermal standard" more concrete such as "begin developing a renewable thermal standard in 2023 for implementation in 2024". A renewable thermal standard, or what we call a "Clean Heat Standard" (CHS), would be a major policy to drive down emissions from the thermal sector. Such standards encourage a transition to no or low-emission heating by obligating fuel suppliers to earn an increasing number of "Clean Heat Credits" each year. These credits can be earned by installing heat pumps, insulating homes, building to passive house standards, etc. The CHS would create a market for technologies and services that result in lower or zero emissions from heating.

We recommend supplementing the draft with the additional priority actions for the thermal sector:

1. Adopt a statewide Building Performance Standard (BPS):

A BPS would require buildings over 20,000 square feet to report their energy usage and emissions to the state. They would be required to reduce those emissions over time according to a set of standards that gradually become more stringent. These standards would apply to existing buildings as well as new buildings being built before 2050. This will encourage new building construction to avoid installing fossil-fuel-based heating systems.

33 American states and municipalities are already working on Building Performance Standards. An example of this includes the Building Emissions Reduction and Disclosure Ordinance (BERDO) in Boston. BERDO regulates both large buildings (non-residential buildings larger than 20,000 square feet) and residential buildings with 15 or more units. All such buildings are required to be net-zero by 2050 but the pace at which a particular building is required to reduce its emissions depends on its use category. Large building owners also have the option to comply by reducing their emissions directly or by making alternative compliance payments to mitigate residual emissions, at a price of \$234 per metric ton of CO2. Funds generated from these payments are placed into an "Equitable Emissions Investment Fund" to support, implement and administer reduction projects within Boston, prioritizing Environmental Justice Communities and local renewable energy development.

Building Performance Standards will not only reduce building emissions over time, but it will ensure that low-income minority communities are also able to reduce their emissions. BPS additionally puts energy efficiency solely on the responsibility of the landlord.

2. Update the state's building energy code and authorize communities to adopt a local option Stretch Code:

Building energy codes reduce emissions by taking away the option of inefficiency. All new construction (and in some cases, substantial renovations) must meet minimum standards of energy efficiency, just as they must comply with safety measures. Our current building code in Rhode Island is, in terms of energy efficiency, several years behind leading states such as California, New York, Massachusetts, and others (more info here). We urge RI to adopt the 2021 Interntional Energy Conservation Code (IECC) which will result in buildings that are energy efficient, more affordable to own and operate, and based on current industry standards for health, comfort, and resilience. We refer you to the Pacific Northwest Laboratory's study on cost-effectiveness of the IECC in RI for more information.

Additionally, communities should be able to adopt a local option stretch code. As communities see the value of efficient buildings, they should be able to opt for a higher standard. The option of a net-zero opt-in code would prevent fossil fuels from being used in new buildings, significantly decreasing thermal sector emissions.

Thank you for the opportunity to comment on updates to the plan.

Sincerely,

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