Rhode Island
2025 Climate Action Strategy

Executive Summary

November 2025

Draft V3 (Released for Public Comment)

Letter from the Executive Climate Change Coordinating Council

Pursuant to the requirements of the Act on Climate (R.I. Gen. Laws § 42-6.2), this Strategy report provides the State of Rhode Island's updated assessment of progress toward the mandated greenhouse-gas reduction targets for 2030, 2040, and 2050, and outlines policies, programs, and actions that support progress toward those targets. It offers an accounting of where Rhode Island stands today, while recognizing that the federal policies and economic landscape in which earlier strategies were developed have shifted significantly.

Since 2021, when the Act on Climate was enacted, Rhode Island has developed and implemented a range of programs, laws, and regulations designed to place the state on a clear trajectory toward meeting its 2030 greenhouse gas reduction targets. Rhode Island has been a national leader in offshore wind development—committing to long-term power purchases, investing significantly in port infrastructure, and partnering with labor organizations to support a just transition of the workforce. Modeling indicates that continued, effective implementation of these state programs, as originally designed, would position Rhode Island to achieve its 2030 goals.

However, this trajectory now faces material uncertainty due to recent shifts in federal policy, which affect both the availability of federal funding and the underlying programs that were assumed in earlier planning. These shifts will have devastating and immediate consequences for Rhode Island's climate planning. While this Strategy focuses on impacts to our climate-change portfolio, the broader federal rollbacks are poised to trigger severe disruptions across energy, environmental protection, health care, and food-security systems, placing extraordinary strain on state agencies and undermining long-standing strategic investments.

With respect specifically to climate initiatives, the Trump Administration's actions will materially disrupt Rhode Island's ability to meet its statutory emissions-reduction obligations. Numerous examples illustrate the magnitude of this harm:

- Rescission of key Clean Air Act authorities that supported clean-vehicle deployment. These federal rollbacks eliminate tools Rhode Island relied upon to accelerate the transition to cleaner vehicles—directly constraining progress in the transportation sector, the state's largest source of greenhouse-gas emissions.
- Termination of EV tax credits established under the Inflation Reduction Act. The loss of federal incentives—particularly for electric vehicles, battery storage, and distributed clean-energy technologies—significantly weakens Rhode Island's ability to drive down emissions through consumer adoption and private-sector investment.
- Deliberate federal efforts to stall and constrain offshore wind development. By creating regulatory barriers and uncertainty around project approvals, the Administration has jeopardized one of Rhode Island's most significant clean-energy pathways and introduced substantial risk that could deter private-sector investment.
- Elimination of federal clean-energy grants, including programs such as Solar for All**.** The removal of these grant opportunities cuts off critical funding streams that were designed to

expand access to renewable energy, especially for low- and moderate-income households, and undermines the state's ability to scale community-based clean-energy programs.

+ Termination of clean energy investment and production tax credits established under the Inflation Reduction Act: The elimination of IRA investment tax credits makes new clean-energy projects more expensive to develop in Rhode Island while also tightening the regional supply of Renewable Energy Certificates (RECs), the tradable credits that represent one megawatt-hour of eligible renewable generation, which in turn drives up the cost of complying with the state's Renewable Energy Standard (RES), the mandate requiring suppliers to procure a growing share of their electricity from renewables.

Taken together, these actions will require us to consider a fundamental pivot in our planning and execution, as the federal landscape has shifted in ways that likely compromise our ability to deliver on climate commitments without some adjustment.

In light of these structural changes, the Executive Climate Change Coordinating Council acknowledges that future policy must strike a more deliberate balance: protecting utility affordability for Rhode Island families while charting a realistic, regionally aligned set of climate goals that reflect the new federal environment.

Electric rate relief and stability are essential for achieving the Act on Climate, because without confidence that electricity will remain affordable, households will not fully embrace the economy-wide electrification, like winter heat-pump use, instead reverting to cheaper fossil fuel options, undermining emissions goals and slowing the broad consumer adoption needed for real progress.

This recalibration is essential to maintaining economic competitiveness, supporting household electrification, and ensuring Rhode Island can pursue durable, achievable emissions reductions in the years ahead.

Respectfully submitted,

Terrence Gray, P.E.
Director, Rhode Island Department of Environmental Management
Chairperson, the Executive Climate Change Coordinating Council

Letter from the Chair

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Acronym Definitions

Acronym	Definition
ACCII	Advanced Clean Cars II
ACPs	Alternative Compliance Payments
ACT	Advanced Clean Trucks
AMC	Advanced Metering Functionality
ARPA	American Rescue Plan Act
BIL	Bipartisan Infrastructure Law
BPS	Building Performance Standards
CamSys	Cambridge Systematics
Btu	British Thermal Unit
CAP	Community Action Program
CARB	California Air Resource Board
CBECS	Commercial Building Energy Consumption Survey
CCAP	Comprehensive Climate Action Plan
ccASHP	Cold-Climate Air Source Heat Pump
CHS	Clean Heat Standard
CPRG	Climate Pollution Reduction Grant
CH_4	Methane
Co_2	Carbon dioxide
CPRG	Climate Pollution Reduction Grant
CTs	Combustion Turbines
DCAMM	Division of Capital Asset Management
DEEP	Connecticut Department of Environmental Protection
DOA	Department of Administration
EC4	Executive Climate Change Coordinating Council
E3	Energy and Environmental Economics
EECBG	Energy Efficiency and Conservation Block Grant Program
EERMC	Energy Efficiency and Resource Management Council
EIA	US Energy Information Agency
ELCC	Effective Load Carrying Capacity
EPCA	Energy Policy and Conservation Act
EVs	Electric Vehicles
GGRF	Greenhouse Gas Reduction Fund
GHG	Greenhouse gas emissions
GHHI	Green & Healthy Homes Initiative
HVAC	Heating, Ventilating and Air Conditioning
ICCT	International Council on Clean Transportation
ICE	Internal Combustion Engine
IIJA	Infrastructure Investment and Jobs Act
IRA	Inflation Reduction Act

ISO-NE	ISO New England
ISR	Infrastructure, Safety, and Reliability Plans
LDCs	Local Distribution Companies
LIHEAP	Low-Income Home Energy Assistance Program
LMI	Low- and Moderate- Income
LRTP	Long Range Transportation Plan
LT	Long-term
MHDVs	Medium- and Heavy- Duty Vehicles
NECEC	New England Clean Energy Connect
MMT	Million Metric Tons
N_2O	Nitrous oxide
NEEP	Northeast Energy Efficiency Partnership
NEVI	National Electric Vehicle Infrastructure
NREL	National Renewable Energy Laboratory
NWA	Non-Wire Alternative
O&M	Operations and Maintenance
OER	Rhode Island's Office of Energy Resource
PUC	Public Utilities Commission
PHEVs	Plug-in Hybrid Electric Vehicle
RECs	Renewable Energy Certificates
RES	Renewable Energy Standard
RIDE	Rhode Island Department of Education
RIDEM	Rhode Island Department of Environmental Management
RIDOT	Rhode Island Department of Transportation
RIIB	Rhode Island Infrastructure Bank
RIEC4	Executive Climate Change Coordinating Council
RIOER	Rhode Island Office of Energy Resources
RIPTA	Rhode Island Public Transit Authority
RIPUC	Rhode Island Public Utilities Commission
RIRRC	Rhode Island Resource Recovery Corporation
RPS	Renewable Portfolio Standard
SBC	System Benefit Charge
SEP	State Energy Program
SWIFR	Solid Waste and Infrastructure for Recycling
TMP	Transit Master Plan
T&D	Transmission and Distribution
TBtu	Trillion British Thermal Unit
VMT	Vehicle Miles Traveled
WAP	Weatherization Assistance Program
ZEVs	Zero Emission Vehicles

Acknowledgements

The Council expresses its deepest thanks and appreciation to all the voices who contributed to the development of RI's 2025 Climate Action Strategy. The member agencies of the EC4, both leadership and dedicated staff, have provided continuous input, feedback, and direction over the past year in pursuit of developing a strategy that charts a path for meeting that state's climate goals and spurs action that will result in measurable progress here in Rhode Island. The Project Team consisting of RIDEM and RIOER provided consistent dedication to engaging with a broad group of interested stakeholders throughout 2025.

Thanks also goes out to the teams at Energy and Environmental Economics, Inc. (E3), Lighthouse Consulting Group, and BW Research who provided superior technical analysis, facilitation, research, and guidance as the state's consultants on this important project. Cambridge Systematics provided key guidance and analysis in support of identifying strategies to reduce transportation sector emissions.

The EC4's two advisory bodies, the 'Advisory Board' and 'Scientific and Technical Advisory Board', provided consistent feedback and assessment, and created additional avenues for public engagement throughout 2025.

The USEPA's Climate Pollution Reduction Grant (CPRG) provided the necessary financial support to allow RI to undertake such a robust approach as it worked to simultaneously complete this Strategy and its Comprehensive Climate Action Plan (CCAP).

Most importantly, we value all the members of the public and organizations who cared deeply enough to dedicate many hours joining listening sessions, providing feedback, and helping to share news about the Strategy's progress throughout 2025. Many Rhode Islanders cared enough to offer their climate concerns, ideas, and encouragement to the Council and it is deeply appreciated.

Executive Summary

In April 2021, Rhode Island enacted the Act on Climate, setting enforceable greenhouse gas (GHG) reduction targets of 45% below 1990 levels by 2030, 80% by 2040, and net-zero by 2050 (RIGL Chapter 42-6.2). The Executive Climate Change Coordinating Council (EC4) leads interagency coordination for achievement of these goals. Following the 2022 update to the former Greenhouse Gas Emissions Reduction Plan (2016), the EC4 has developed the 2025 Rhode Island Climate Action Strategy for submission by December 31, 2025. Pursuant to RIGL 42-6.2-2, the Strategy includes programs, actions and strategies to meet the Act on Climate's mandated targets and will be updated every five years. This Strategy will serve as the state's comprehensive plan for reducing emissions while advancing equity, affordability, and a just transition for workers and environmental justice (EJ) populations and will be updated every five years. The development of the plan included robust

stakeholder engagement, detailed emissions modeling, and analyses of policies and actions, costs, health outcomes, and workforce needs to support decarbonization in RI.

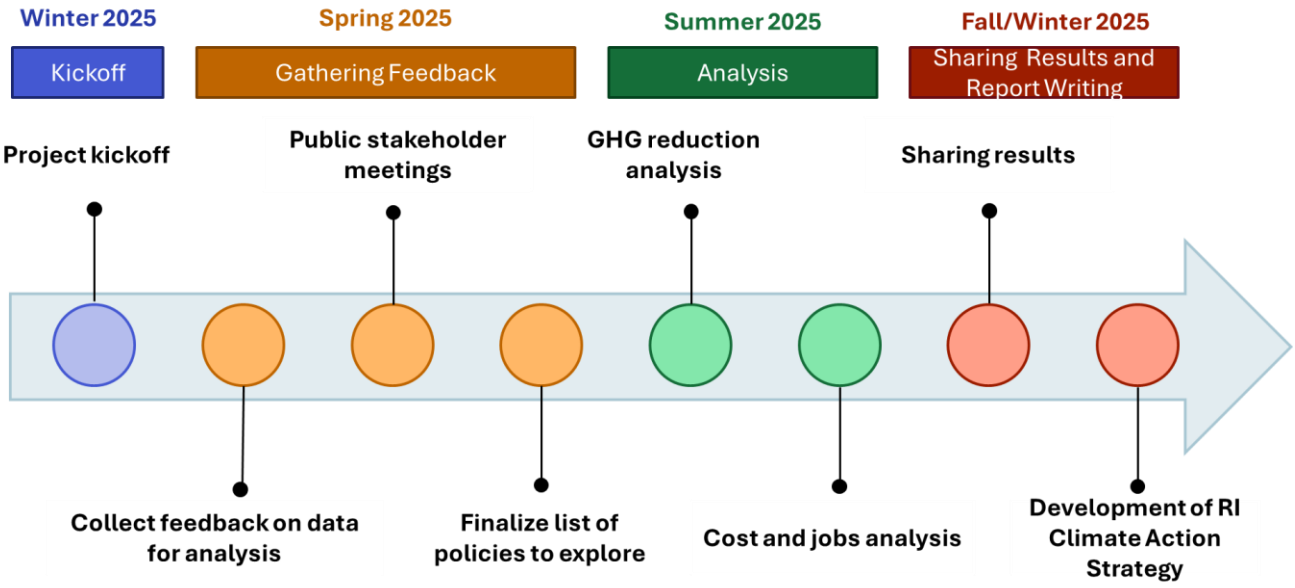
As part of this Strategy, EC4 is putting forward the following options for implementation to guide climate action over the next five years. These options focus on accelerating decarbonization while ensuring economic opportunity, workforce preparedness, and equitable participation across all Rhode Island communities:

[PLACEHOLDER FOR EC4 OPTIONS FOR IMPLEMENTATION]

About the Plan

The development of the 2025 Climate Action Strategy spanned roughly 14 months, from late 2024 through December 2025 (Figure 1). The development of the Strategy was led by the RI Department of Environmental Management (RIDEM) and the Office of Energy Resources (OER). To support this effort, EC4 engaged a consulting team comprised of Energy and Environmental Economics (E3), Lighthouse Consulting, and BW Research Partnership. The state and consulting team conducted extensive stakeholder engagement, policy and funding analysis, and comprehensive quantitative modeling. The modeling efforts were informed by stakeholder feedback and interagency coordination.

Figure 1: Timeline and Process for Developing the RI Climate Action Strategy



The RI Climate Action Strategy provides guidance for RI to achieve the goals set out by the Act on Climate. The plan investigates:

- **Where are we today?** Current emissions across all major sectors, based on the latest GHG inventory
- **What emissions path are we on now?** The expected emissions trajectory under existing state policies and programs

- **What additional actions are needed?** Additional actions and strategies that would put the state on the path to achieve near- and long-term climate goals

Beyond emissions, the RI Climate Action Strategy explores how decarbonization would reshape Rhode Island's energy system and economy, including:

- **Technology adoption:** Transitions in the home appliances and vehicles that Rhode Islanders will adopt and how that equipment is used
- **Energy demand:** Changes in the use of fuels, such as natural gas, distillate fuel oil, and gasoline, and electricity as electrification accelerates and technology becomes more efficient
- **Electric sector transformation**: The magnitude and timing of increased electric load, and impacts of the Renewable Energy Standard, which requires 100% of retail electricity sales to come from renewable sources by 2033
- **Costs and benefits:** Incremental societal costs of new low-carbon resources and technologies across all sectors and regions of Rhode Island, alongside projected societal benefits such as avoided climate damages and improved air quality. Additionally includes the impact of costs on individual households – such as the upfront costs of low-emission technologies (e.g., heat pumps, electric vehicles), changes to ongoing equipment operations & maintenance (O&M) costs, and impact on household utility bills.
- **Workforce considerations:** Job creation, potential displacement, and training needs in the transition to a cleaner energy economy
- **Equity and environmental justice:** Distribution of costs and benefits across low-income and disadvantaged communities, ensuring that the transition to a clean energy economy is inclusive and equitable

Rhode Island **stakeholders' interests and priorities were a core focus** of the development of the RI Climate Action Strategy. Stakeholder engagement was conducted from January to December 2025, beginning with a project kickoff led by the state and consulting team in January 2025. Between February and May 2025, the team hosted 10 stakeholder meetings, including virtual and in-person across the state, to gather input on topics such as energy, transportation, buildings, workforce, and environmental justice. Subsequent webinars were held in the fall 2025 to share modeling results and key findings. Throughout the process, the state also sought input online via Rhode Island's state climate website, where study inputs and assumptions were posted and stakeholders could continuously submit feedback via SmartComment, a web-based public comment platform.

Key themes that emerged from the public engagement process include:

- **Urgency and Actionability:** Stakeholders consistently called for a shift from planning to near-term implementation, supported by clear timelines, accountability mechanisms, and transparent progress tracking.
- **Coordination Across Key Parties:** Participants emphasized the need for stronger cross-sector and interagency collaboration, especially in transportation, housing, and energy, to streamline processes and align local and state actions.
- **Equity and Community Trust:** Ensuring affordability, equitable investment, and community-led engagement were voiced as essential. Building trust requires ongoing,

transparent communication, education, and outreach, particularly in communities disproportionately impacted by climate change.

- **Clean Energy and Electrification:** Broad support was voiced for building and transportation electrification, grid modernization, and distributed energy resources. Stakeholders urged action to overcome barriers such as high upfront costs, split incentives, and access for renters and small businesses.
- **Workforce and Economic Transition:** Stakeholders stressed the need to grow a skilled, inclusive clean energy workforce while protecting and retraining workers affected by the transition away from fossil fuels.

In addition to the broader stakeholder engagement efforts outlined above, RIDEM funded six community groups to conduct outreach directly within their communities. These projects reached a broad range of participants that included labor apprentices, youth, families, renters, homeowners, transit riders, and others who provided valuable insight into the potential for decarbonization activities to support all Rhode Islanders. Participants emphasized the importance of more community-centered events and transparent communication about specific programs. Ways to overcome barriers to participation include direct outreach, simple educational materials, and access to consultations and personalized assistance.

The quantitative modeling and analysis of near-term strategies to meet Rhode Island's emissions targets were directly informed by this extensive stakeholder engagement and the key priorities identified by Rhode Islanders and state agencies. This feedback underscored the need for timely, coordinated, and equitable action – emphasizing implementation over planning, stronger collaboration across sectors, and a just transition toward clean energy and electrification. While the plan evaluates the impacts of decarbonization strategies across both near- and long-term horizons, it places particular emphasis on the next four years and examples of near-term steps the state can take to reduce GHG emissions by 2030. These near-term actions are designed to accelerate progress toward Rhode Island's 2030 target of achieving a 45% reduction in emissions below 1990 levels, while laying the groundwork for sustained, equitable decarbonization in the decades ahead.

Centering Equity

The Act on Climate requires that the Climate Action Strategy incorporates equity throughout its design and implementation. Achieving the state's emission reduction goals must go hand in hand with ensuring that the benefits of the clean energy transition are shared equitably and that no community is left behind.

Specific approaches to advancing equity will vary depending on the particular GHG reduction strategies or actions pursued by RI, but some overarching considerations include:

- Affordable and accessible clean energy programs and incentives for households and businesses.
- Reliable, low-cost, and low-emission transportation options that expand mobility and accessibility
- Quality jobs and training pathways that enable Rhode Islanders to thrive in the clean energy economy.
- Protection from displacement and other unintended impacts as homes and neighborhoods undergo energy efficiency and electrification improvements.
- Communication and transparency with the public and local communities as strategies are implemented

Where We Are Today

Rhode Island's Current Emissions

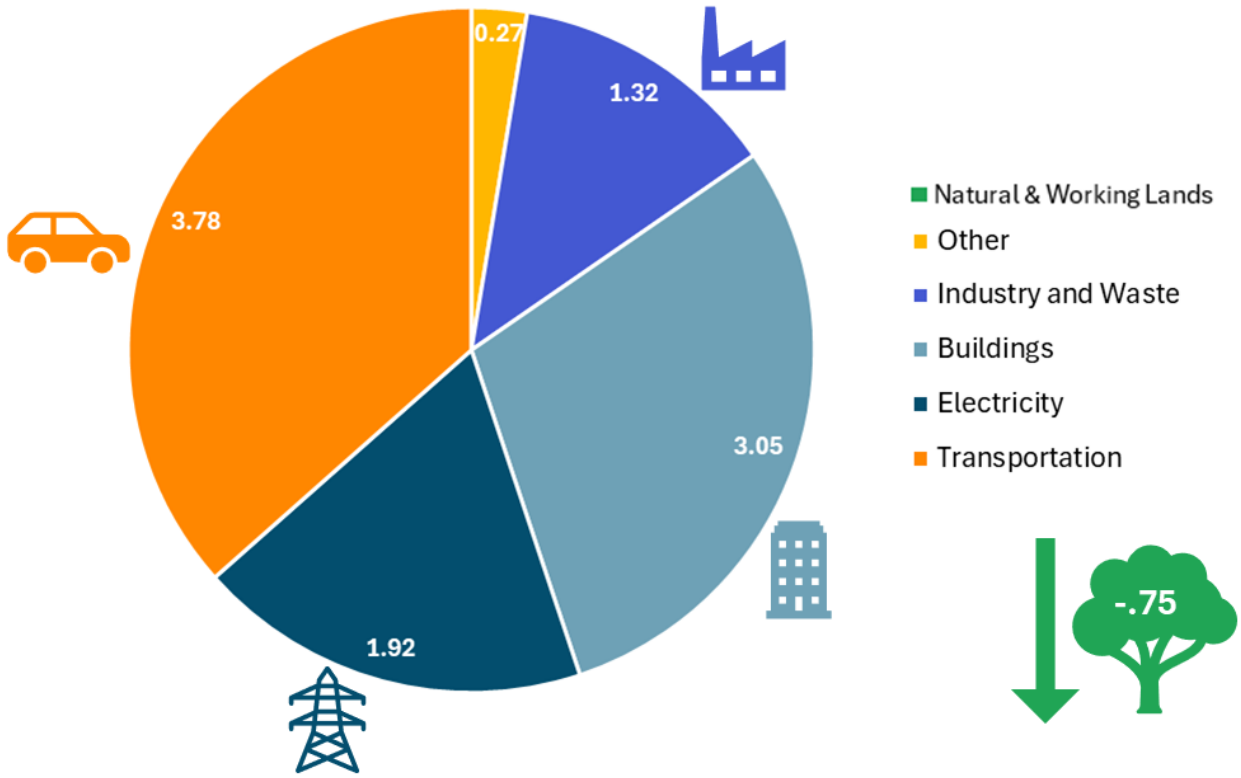
The first step to evaluating pathways to decarbonization is to assess where we are today. Based on the state's latest GHG inventory (2022)[1], **Rhode Island's net emissions are 9.60 MMT CO2e**, a 19% reduction below 1900 levels, and the state has met the 2020 mandate of 10% reduction from 1990 levels as set by the Act on Climate.

Emissions stem from every major sector of the economy, as outlined below (Figure 2):

- **Transportation (≈ 37 %)**: cars, trucks, buses, ships, and planes
- **Buildings (≈ 29 %)**: heating and cooling homes, offices, and schools
- **Electricity (≈ 19 %)**: power generation and imported grid electricity
- **Industry and Waste (≈ 13%)**: manufacturing and landfills
- **Other Sources (≈ 3%)**: agriculture and natural gas leaks

[1] Includes updates from RIDEM to the 2022 GHG Inventory methodology for estimating emissions from solid waste and electricity consumption

Figure 2: GHG Emissions in Rhode Island in 2022 (MMT CO2e)

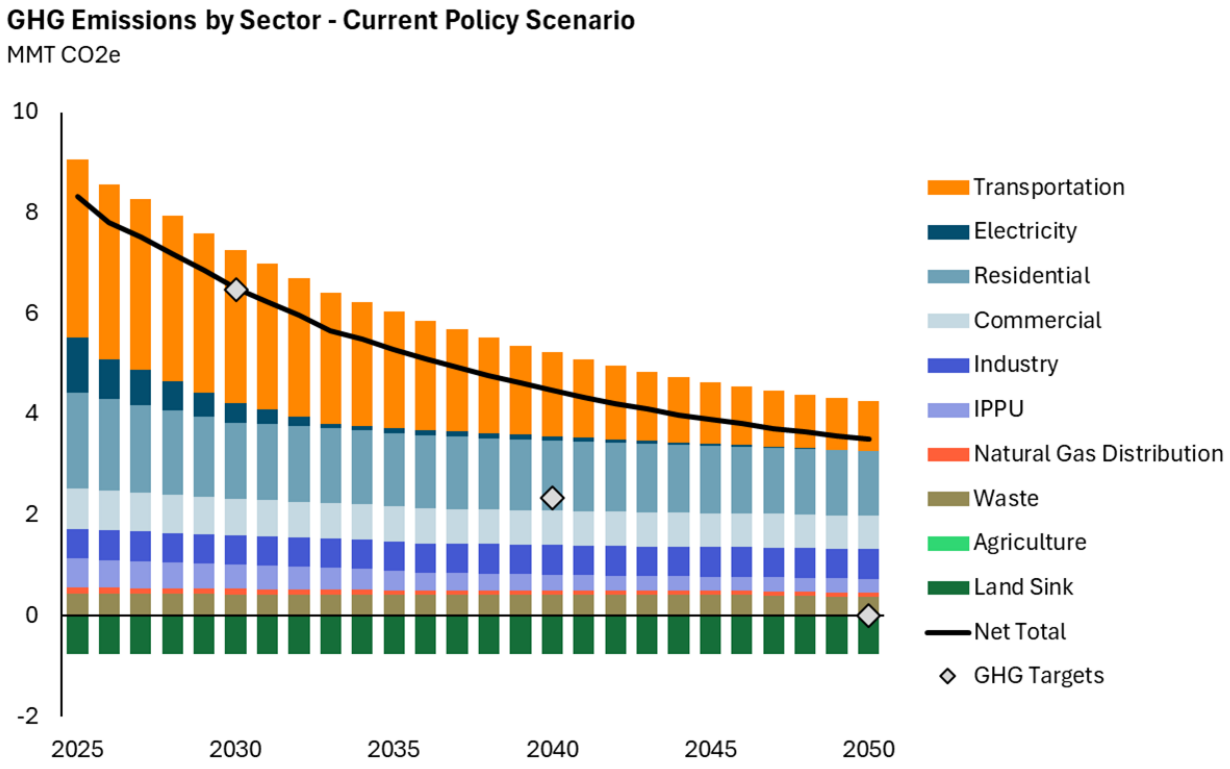


The Act on Climate established Rhode Island's 2050 GHG reduction target as a "net" target. Rhode Island will continue to prioritize protecting the health and integrity of its natural ecosystems and enhancing their carbon sequestration and storage through natural climate solutions. Net emissions provide a more comprehensive picture by accounting for both emissions and removals. Further details on natural climate solutions can be found in the body of the report and Appendix.

Progress Under Current Policies

After establishing where we currently are in terms of GHG emissions today, the next step is to explore what level of emissions reductions can be achieved under current policies while recognizing that the federal government landscape has created significant uncertainty. The analysis indicates that **if current policies and programs are successfully implemented, Rhode Island is on track to meet its 2030 emissions reduction target** of 45% below 1990 levels (Figure 3). In later years, emissions reductions under current policies are projected to reach 62% below 1990 levels by 2040 and 70% below 1990 levels by 2050. This progress is a strong start, however additional actions will be necessary to close the gaps and meet the targets of 80% below 1990 levels by 2040 and net-zero by 2050.

Figure 3: Emissions Projections Under Current Policies



Emissions reductions in the Current Policy scenario are driven by the following state laws, programs and regulations, all of which are impacted by shifts in federal policy in 2025[2]:

[2] The current policy scenario did not assume the continuation or enforcement of several federal climate and energy policies—such as vehicle fuel economy (CAFE) standards and appliance efficiency standards—due to recent federal rollbacks. That being said, federal rollbacks of climate policies are still expected to influence Rhode Island's progress by making it more challenging to achieve the goals of existing state policies and programs.

- The **Renewable Energy Standard (RES)**, which requires that 100% of retail electricity sales are met with renewable sources by 2033
- Existing **State Energy Efficiency Programs**, which encourage weatherization and appliance efficiency upgrades in buildings
- Existing state heat pump incentive programs like **Clean Heat RI**, which encourages heat pump adoption in buildings
- Existing state electric vehicle incentives such as through the **DRIVE EV program**
- High levels of zero emission vehicle (ZEV) adoption in line with the **Advanced Clean Cars II (ACCII) and Advanced Clean Trucks (ACT) rules**[3], which are requirements for automakers to sell a growing percentage of new zero-emission vehicles over time.

Shifting Federal Landscape

RI has a strong foundation of existing climate and clean energy policies, but ongoing changes at the federal level create many unknowns that could influence how these state policies move forward and how climate action will progress in the years ahead. The Trump administration, through HR1[4] and associated regulatory actions, has reduced federal funding for states and local energy programs by tens of millions of dollars, repealed multiple clean energy tax credits incentives and initiated the rollback of federal clean car standards. Federal actions outside our control have introduced significant uncertainty into the climate planning process. A RI report issued in October 2025 by Governor McKee's Office of Management and Budget estimates that HR1 terminated or froze over $75 million in federal funding support for energy investments, scientific research, and critical infrastructure. Similarly, it ended the Inflation Reduction Act's clean-energy tax credits, cutting clean-energy investment and froze over $80 million in grants, while pausing vehicle-emissions standards, threatening Rhode Island's ability to meet its climate goals. [5]Rhode Island will forge

[3] It's worth noting that while the ACCII and ACT regulations will contribute to progress toward RI's 2030 emissions targets, their greatest impact on GHG reductions will occur in the longer term – by 2040 and 2050. This is because it takes time for higher EV sales shares to translate into significant changes in the overall vehicle fleet. Even if all new vehicle sales were EVs, these sales only replace retiring gasoline and diesel vehicles, meaning the full benefits of the transition will unfold gradually as the existing fleet turns over. This dynamic reflects the lag between increased EV sales and the actual growth of EVs on the road.

[4] H.R.1 - 119th Congress (2025-2026): One Big Beautiful Bill Act | Congress.gov | Library of Congress

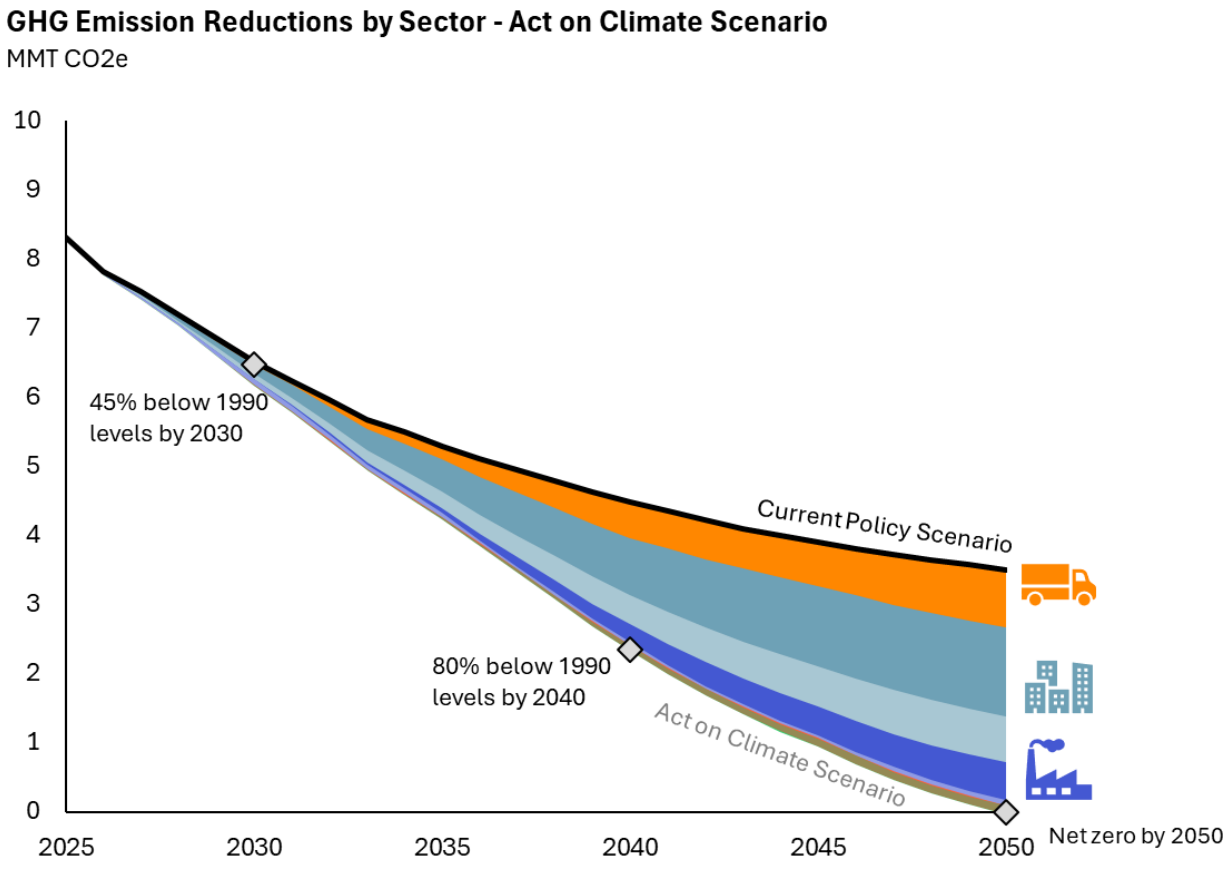
[5] See https://omb.ri.gov/sites/g/files/xkgbur751/files/2025-10/OMB%20H.R.%201%20Report%2025.10.30.pdf for a copy of the full report and full analysis on impacts to RI.

ahead in the face of this shifting landscape and continue to collaborate across all agencies in 2026 and beyond.

The Path to Net-Zero

While current policies can help RI stay on track to meet the 2030 target, **additional ambition will be required to reach the 2040 and 2050 targets as set by the Act on Climate**. Reaching these targets will require additional action for all major sources of emissions in the state like transportation, buildings, and industry, as shown in Figure 4 below. The additional actions modeled in the Act on Climate scenario include: for transportation, deeper ZEV adoption for medium-and heavy-duty vehicles beyond the requirements of ACT and decarbonization of off-road sources like marine and aviation fuel, for buildings, the adoption of heat pumps in *all* residential and commercial buildings by 2050, and for industry, 70% of industrial fossil fuel demand electrified, with the remaining portion replaced with renewable fuels.[6]

Figure 4: GHG Emissions Reductions by Sector in Act on Climate Scenario



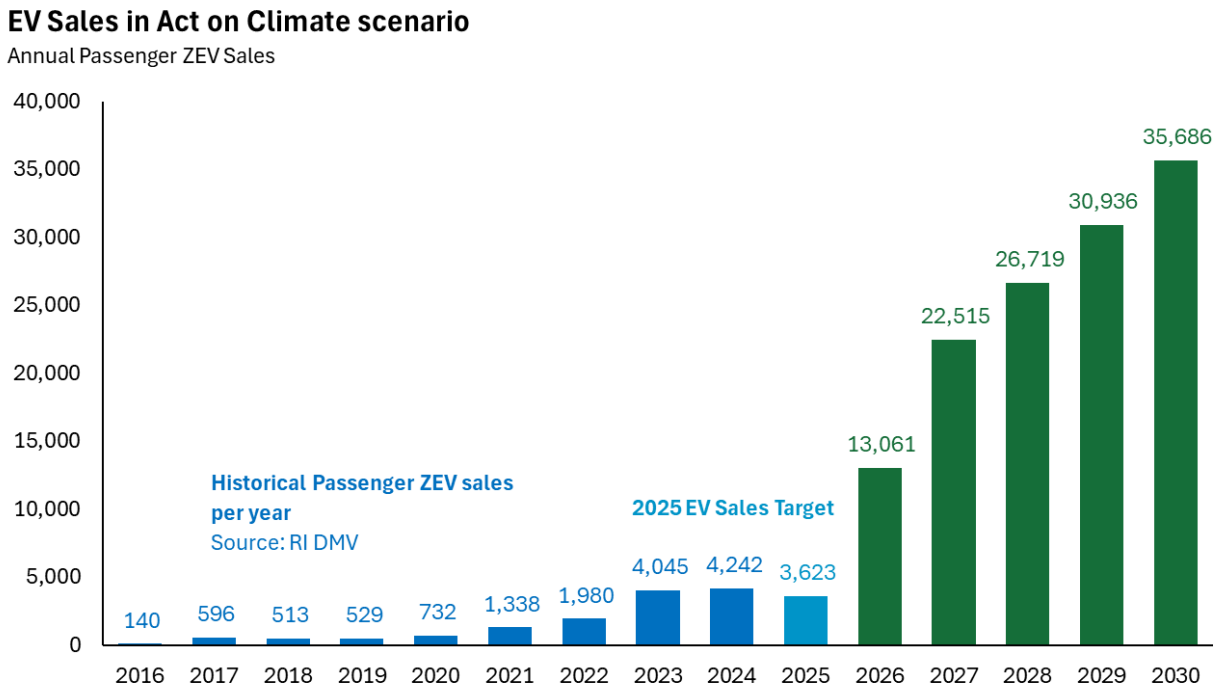
[6] The Act on Climate Scenario does not represent RI's plan for specific actions to meet the 2040 and 2050 targets, rather it represents an example of policies to be considered for implementation.

Impact on Technology Adoption

Achieving the emissions reductions goals as set out by the Act on Climate will require a transformation in the technologies that Rhode Islanders use daily for heating their homes, cooking, and commuting.

Transportation is currently Rhode Island's highest emitting sector, contributing 3.65 MMT CO2e in 2022, around 35% of total gross GHG emissions. In the transportation sector, **transitioning from internal combustion engine vehicles powered by gasoline or diesel to zero emission vehicles (ZEVs) will be fundamental** to reaching the state's climate goals. In the Act on Climate scenario, it's assumed about 142,000 EVs would be on the road by 2030, necessitating the annual sale of 13,000 EVs sold in 2025 increasing to 36,000 EVs sold in 2030 (Figure 5). To accelerate the uptake of light-duty EVs in the state, Rhode Island has adopted ACCII, which requires that by 2035, 100% of new light-duty vehicles (LDVs) delivered to dealerships in RI be zero-emission.[7,8] It's worth noting that recent federal government action that repealed the EV tax credit several years earlier than expected creates challenges for the state's EV adoption efforts.

Figure 5: Annual EV Sales Needed to Reach Act on Climate



Medium- and heavy-duty vehicles (MHDVs), such as box trucks and school buses, will also need to transition to ZEVs in order to hit climate targets. To encourage this uptake, RI has adopted ACT, which similarly sets progressively stricter sales requirements for zero-emission trucks to RI

[7] ACCII is assumed to be adopted in both the Current Policy Scenario and the Act on Climate, and is discussed further as a near-term carbon reduction strategy in the below sections.
[8] This could allow for plug-in hybrids and hydrogen fuel cell vehicles.

dealerships. The percentage of new trucks that must be zero-emission depends on the weight class, reaching 40-75% by 2035, with different mandated milestones over time. Additionally, expanding electrification beyond trucks to public transit – such as public buses and rail – will also be important for achieving deeper emissions reductions in the transportation sector.

To support these high levels of vehicle electrification, it will be important for RI to continue expanding its charging infrastructure. The state has already made significant progress in growing its charging network over the past several years – with over 1,000 charging ports available for charging,[9] many installed via programs such as Electrify RI[10] and the National EV Infrastructure (NEVI) program.[11] RI is committed to further expansion to meet future EV charging demand as adoption grows.

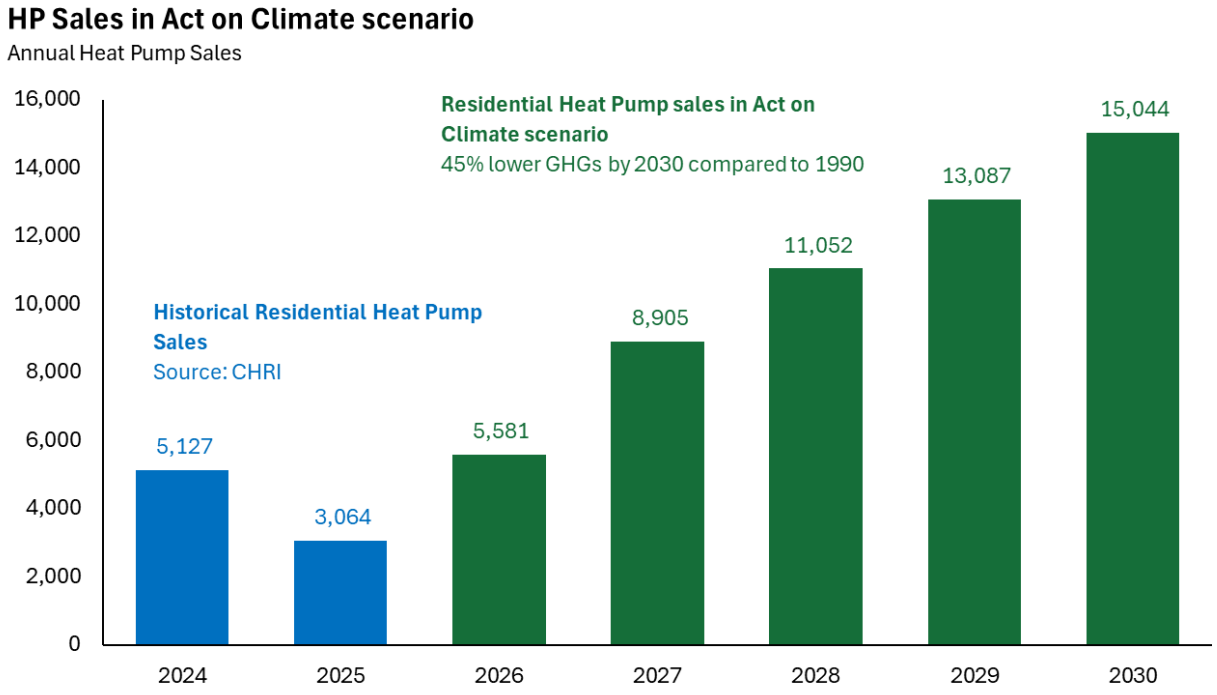
In the buildings sector, **building equipment will transition from a primary reliance on fossil-fuel based options toward decarbonized technologies**, like heat pumps. Under the Current Policy scenario, technology adoption is expected to be driven by existing state programs and forthcoming home efficiency and heat pump programs scheduled to launch in 2026. For example, the Clean Heat RI program provides incentives for heat pumps, which is anticipated to drive steady but moderate market growth. By 2050, heat pumps are projected to make up approximately 16% of total space heating equipment in RI. In the Act on Climate scenario, there is a complete transformation of building heating technologies by 2050 to meet GHG reduction targets. Under this scenario, 100% of buildings have a heat pump installed by 2050, with about 36% installed as hybrid systems that retain exiting fossil fuel equipment for use as backup on the coldest days of the year. In the near-term, this translates to 70,000 total heat pumps by 2030 – requiring an increase in sales from about 3,000 heat pumps sold per year in 2025 to about 15,000 sold per year in 2030 (Figure 6).

[9] U.S. Department of Energy, Alternative Fuels Data Center. (n.d.). Alternative Fueling Station Locator; https://afdc.energy.gov/stations#/analyze?region=US-RI&show_map=true&country=US&access=public&access=private&fuel=ELEC&lpg_secondary=true&hy_nonretail=true&ev_levels=all

[10] State of Rhode Island, Office of Energy Resources. (n.d.). Electrify RI Program; https://energy.ri.gov/transportation/ev-charging/electrify-ri-program

[11] State of Rhode Island, Office of Energy Resources. (n.d.). Rhode Island Electric Vehicle Incentive Program (RIEV); https://energy.ri.gov/rinevi

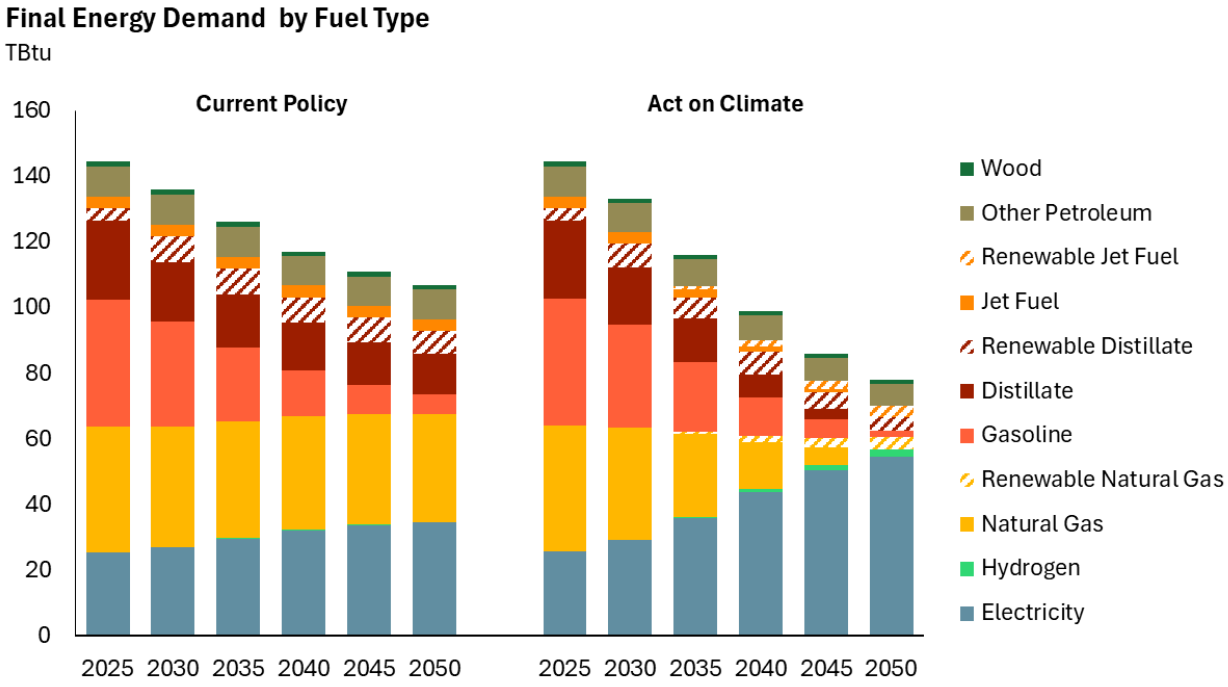
Figure 6: Annual Heat Pump Sales Required to Reach Act on Climate Scenario



Changes in How Rhode Islanders Use Energy

As Rhode Island continues to reduce GHG emissions and shifts how technology is used, the state's energy system will also experience key changes. Over time, **Rhode Island will shift away from fossil fuels toward a cleaner, more electrified economy**, as homes, businesses, and vehicles increasingly rely on electricity rather than oil, propane, and gasoline. This transition will be supported by continued improvements in energy efficiency and transit, resulting in an overall decline in total energy demand even as the population and economy grow. Figure 7 demonstrates how energy demand in RI is expected to shift over time under both current policies and the Act on Climate scenario. Under current policies (Figure 7, left), the primary driver of change over time is the reduction in gasoline demand due to the adoption of EVs in line with ACCII and ACT. There is a moderate increase in electricity demand under current policies. Under the Act on Climate scenario (Figure 7,right), electricity demand is projected to rise, and there is a decline in all fossil fuels, such as natural gas and distillate from building decarbonization, and gasoline from transportation electrification. There is also some increase in low-carbon fuels, primarily use in MHDV vehicles and hard-to-decarbonize industrial processes. Throughout this transition, balancing emission reduction efforts with energy affordability for homes and businesses must be considered.

Figure 7: Change in Energy Demand over Time for Current Policy (left) and Act on Climate Scenarios (right)



Changes to the Electric Grid

The electric grid will play an important role in Rhode Island's economy and climate goals. Electricity powers homes, businesses, and increasingly, vehicles and heating systems. As the state transitions away from fossil fuels, the electric grid becomes both a key driver of emissions reductions and a critical enabler of broader decarbonization across transportation and buildings. The RI Climate Action Strategy includes an exploration into how the electric sector will evolve in the future given its importance in RI achieving the Act on Climate. It is projected that **between now and 2050, renewable generation – from a combination of offshore wind, onshore wind, and solar – will grow**. This increase in renewable generation is driven by both electric load growth from electrification, and increasing renewable requirements, such as RI's RES. Over the next 10 years, investments in the electric sector will primarily be driven by the need to add renewable energy resources to meet increasing state renewables targets. After 2035, investment decisions will be mostly driven by the need to reduce GHG emissions in line with New England states' GHG targets, as well as to maintain reliability under increasing levels of electricity demand from widespread building and vehicle electrification.

Key Policies for Achieving Climate Progress

As stated above, the analysis found that current policies will help RI reach the 2030 Act on Climate GHG reduction target of 45% below 1990 levels. Major progress will come from the RES, which moves the state toward 100% renewable electricity by 2033, and from the ACCII and ACT programs, which increase the share of zero-emission vehicles on the road. However, it is important to note the real-world uncertainty about how fully and quickly these policies will be implemented – and how

effectively they will deliver the expected emissions reductions in the electric and transportation sectors. These uncertainties include:

- **Electric sector:** achievement of the RES can be met through the procurement of renewable energy projects, purchase of renewable energy certificates (RECs), or through making alternative compliance payments. Increasing demand for renewables across New England, higher costs for new renewable resources due to recent policy changes, and a limited capacity of new renewable projects that can be developed at scale quickly are potential risks to achieving RI's 100% RES. Recent federal actions could make compliance more difficult. Rhode Island will need to monitor these risks and take action if necessary to remain on track to meet the RES. The GHG emissions intensity of the ISO-NE grid will also impact the ability of the electric sector to decarbonize quickly, especially in years before RI's RES target grows to 100% in 2033. If GHG emissions from the ISO-NE grid are higher than modeled before 2033, potentially due to lower hydro imports from Quebec than expected, additional emissions reduction measures may be required.
- **Transportation sector:** decarbonization in the transportation sector over the next decade is largely driven by compliance with ACCII and ACT rules in the Current Policy Scenario. These rules both follow California's emissions standards, which are more stringent than federal regulations due to a previously granted EPA waiver. As of fall 2025, the current Congress has attempted to revoke CA's waivers and ability to set emissions standards, and these actions are currently being challenged in federal court by CA and other states. While these actions are being actively litigated, the implementation status of ACCII and ACT beginning in 2027 is unclear. Due to the uncertainty of the implementation of ACCII and ACT, the project team modeled a Current Policy Scenario without ZEV Waivers as a sensitivity to analyze the impact if not achieving these programs. This analysis found that without ACCII and ACT, RI could achieve the following emissions reductions:
    - 43% below 1990 levels by 2030
    - 53% below 1990 levels by 2040
    - 58% below 1990 levels by 2050

  The detailed results of that analysis can be found in the Appendix.

Costs and Benefits of Decarbonization

Achieving Rhode Island's Act on Climate targets will involve transformations in how energy and technology are used across the state, as outlined above. These transformations will require investments across the state's energy systems, transportation, buildings, and industries. Decarbonization will entail new infrastructure, technology deployment, and behavioral changes that come with associated costs. However, decarbonization also leads to benefits – such as avoided damages from climate change and savings on fossil fuel spending. To assess these impacts, the analysis compared the costs and benefits of different pathways: continuing with current policies, taking additional action under the Act on Climate, and doing nothing (referred to as "business-as-

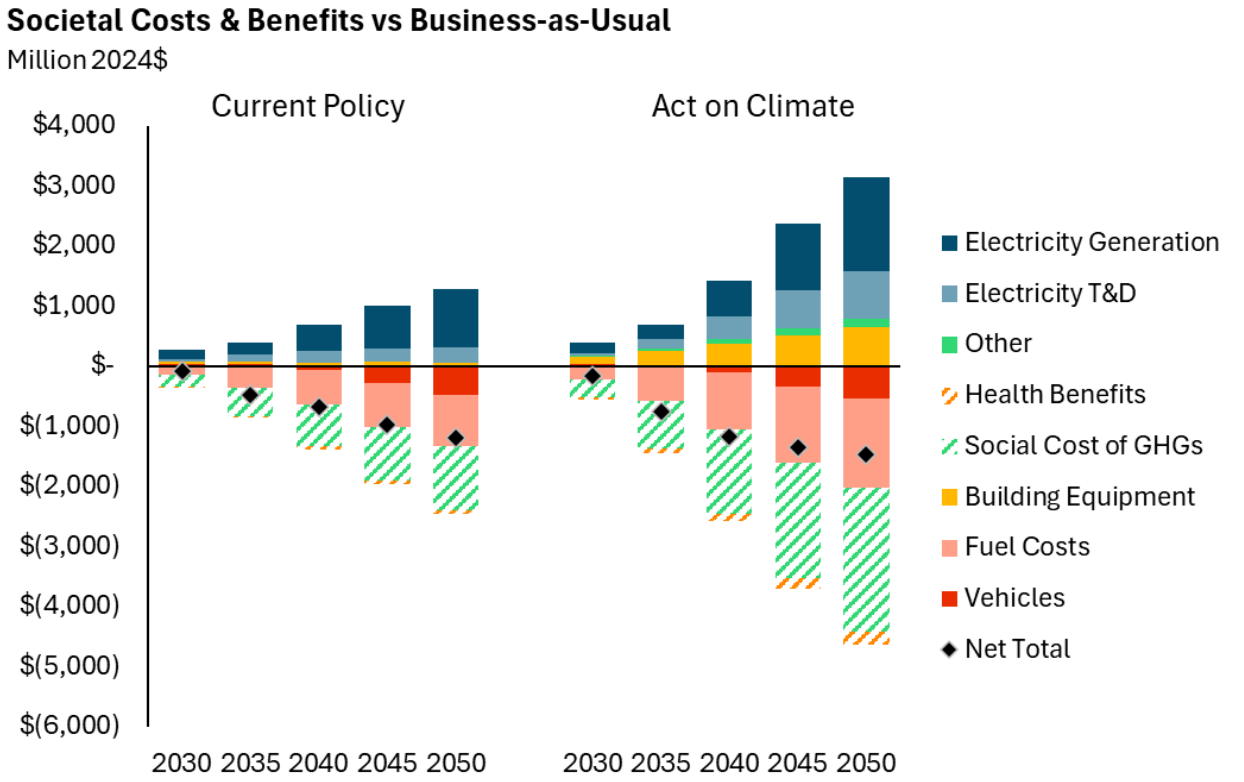
usual")[12]. The results show that while achieving these targets requires greater investment in clean energy technologies, infrastructure, and system upgrades, these costs may be balanced by long-term benefits.

Overall, the analysis found that **the societal benefits of decarbonization are projected to outweigh the costs**, in both Current Policy and Act on Climate Scenarios. Decarbonization reduces spending on fossil fuels, avoids the economic and health damages caused by climate change, and delivers cleaner air and healthier communities across the state. By 2050, the societal net benefits under current policies compared to business-as-usual are estimated to be about $760M, while the societal net benefits under Act on Climate compared to business-as-usual are estimated to be about $940M (Figure 8).

Key drivers of cost increases include investments in the electric sector – such as generation and transmission and distribution ("T&D") – as well as upfront costs for building equipment like heat pumps. Cost savings are driven by the avoided cost of gasoline-powered vehicles, fossil fuel savings, and the social cost of GHGs. The social cost of GHGs represents the estimated monetary value of the damages caused by emitting GHGs, including impacts on health, the environment, and the economy.

[12] The "do nothing" scenario, also known as the "business-as-usual" scenario, just assumes population growth, with no climate policies.

Figure 8: Societal Costs of Decarbonization under Current Policies (left) and Act on Climate (right)



It is also important to consider the cost impacts on individual customers in RI, such as the upfront cost impacts of different technology types and changes to energy bills.

In many cases, electric technologies are more expensive than equipment powered by fossil fuels,[13] leading to an upfront **cost gap between fossil fuel technologies and decarbonized equipment**. An average electric sedan is about $14k more expensive than an internal combustion engine sedan[14], and average cold-climate air source heat pump (ccASHP) is about $19k more expensive than a gas furnace.[15] These cost variances represent averages for a single-family home – the exact upfront cost for technologies will depend on the type of equipment and site specifications. Cost gaps can be mitigated through existing state rebate programs, such as DRIVE EV for electric vehicles, and Clean Heat RI for heat pump rebates. It is worth noting that as decarbonized technologies become more

[13] Under present day prices. Over time, it is expected that the cost gap between internal combustion engine vehicles and EVs will close, as more models come to market.

[14] International Council on Clean Transportation (ICCT). Assessment of Light-Duty Electric Vehicle Costs and Consumer Benefits in the United States in the 2022-2035 Tie Frame. 2022 https://theicct.org/wp-content/uploads/2022/10/ev-cost-benefits-2035-oct22.pdf. Prices also adjusted to reflect real world 2024 prices from Edmunds: https://www.edmunds.com/car-buying/average-price-electric-car-vs-gas-car.html.

[15] Clean Heat Rhode Island Program Statistics (March 2025) and Northeast States for Coordinated Air Use Management (NESCAUM) Heat Pump sin the Northeast and Mid-Atlantic: Costs and Market Trends https://www.nescaum.org/documents/Heat-Pumps-in-the-Northeast-and-Mid-Atlantic---Costs-and-Market-Trends.pdf.

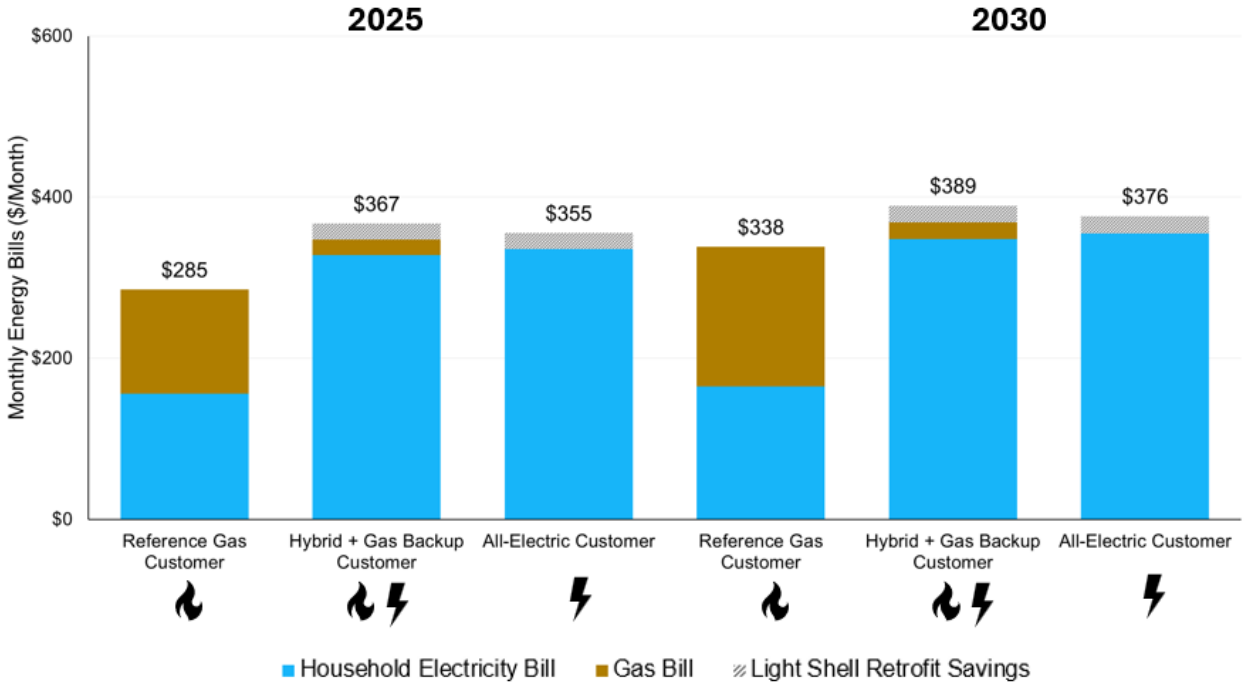
widely commercialized, their upfront costs are expected to decline, narrowing the cost gap between clean energy solutions and fossil fuel-powered equipment over time.

The **bill impacts of electrification can vary** depending on factors like customer type, vehicle type, building type/age, existing fuel sources, level of energy efficiency, and other site-specific conditions.

The analysis found that in some cases, customers are likely to see bill savings as a result of decarbonization. For example, customers currently using oil for heating could experience bill savings after electrification due to the high cost of oil. Additionally, EV charging generally costs less than fueling a comparable gasoline-powered vehicle. These outcomes are aligned with climate and affordability goals.

However, customers using natural gas may see bill increases when switching to electric heat pumps (Figure 9). There are tools to address issues of affordability and mitigate potential bill increases, such as alternative electric rate structures, energy efficiency retrofits, advanced meters, and smart thermostats. Rhode Island's Future of Gas Docket, as led by the RI Public Utilities Commission (PUC), will provide specific recommendations for it to consider in the development of next steps regarding the regulated gas distribution business in Rhode Island relative to the goals in the Act on Climate.

Figure 9: Example Monthly Energy Bills for Gas vs. Electric Customers in 2025 and 2030[16]

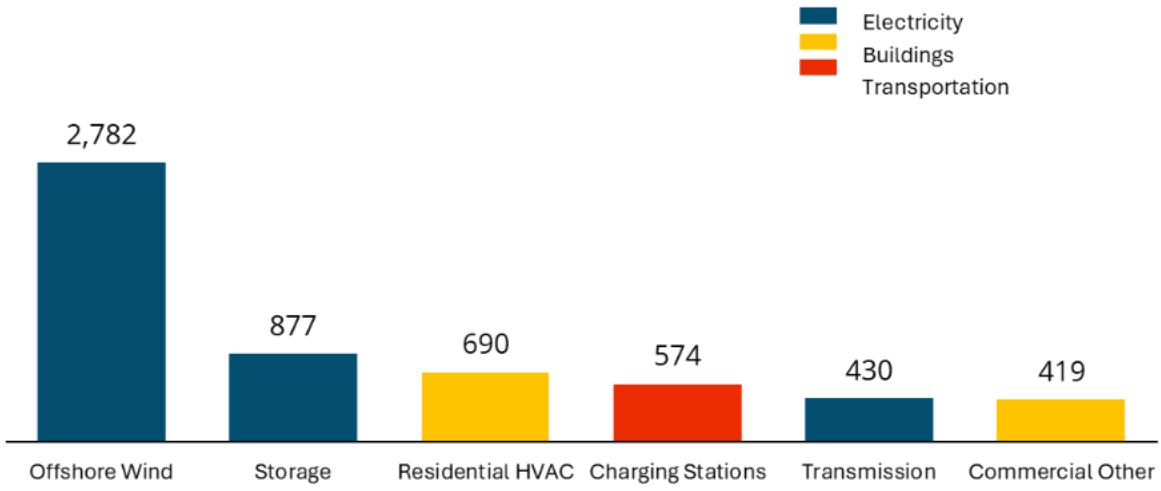


[16] Results shown for a single family pre-1960 home with moderate income, and rates under the Act on Climate scenario

Impacts on Workforce and the Green Economy

Achieving the goals of Rhode Island's Act on Climate will require a workforce transition to meet the state's decarbonization targets. To better understand this shift, an analysis was conducted to assess how decarbonization will affect employment and workforce needs across key sectors. The process also included extensive stakeholder engagement through interviews, community listening sessions, and a survey of clean energy businesses. Overall, the findings show that **Rhode Island can expect steady growth in the clean energy and climate workforce**, with a projected net gain of more than 6,600 jobs by 2035, largely in electricity, buildings, and transportation (Figure 10).

Figure 10: Net Jobs Gain by Sector



Note: Offshore wind capacity projections reflect modeling assumptions that the current federal leasing and permitting restrictions would be resolved within the next several years. Under this assumption, new OSW project timelines were shifted approximately five years later than initially planned, rather than eliminated entirely. This approach assumes continued progress toward lifting the federal ban, as well as recent developments such as Ørsted's successful legal challenge allowing work on the Revolution Wind project to proceed.

In addition to the energy sector showing steady growth across multiple industries, the sector is also defined by a relatively young labor force and has a history of high worker satisfaction. These factors point toward a resilient and motivated workforce well positioned to advance the state's clean energy and climate goals. To realize this potential, targeted short-term reskilling, clearer career pathways, and stronger coordination to connect transferable skills are essential. Rhode Island's training and education ecosystem provides a strong foundation, but continued success will depend on close collaboration among employers, educators, and community partners.

Near-Term Carbon Reduction Strategies

While current policies have made important progress in reducing Rhode Island's emissions, additional action is required to ensure Rhode Island stays on track to meet our 2030 goals and to close the gap needed to achieve our 2040 and 2050 targets. With four years left to reach the 2030 milestone, RI stakeholders emphasized the need for an actionable and measurable plan focused on near-term results. In response, the state conducted a focused policy analysis to evaluate **18**

potential strategies that could further reduce emissions and accelerate progress toward the 2030 target.

This analysis is distinct from the long-term pathways scenarios described above, which outline how much further Rhode Island must go to meet its future climate targets. While the pathways modeling illustrates the interconnected measures needed for economy-wide decarbonization, the specific carbon reduction strategies presented here focus on near-term policies, programs, and projects that can be implemented within the next five years. These strategies aim to drive emission reductions across key sectors such as transportation, buildings, and industry, while reinforcing Rhode Island's leadership in climate action.

Electricity

A core strategy for decarbonizing the electric sector in RI is the state's adoption of the Renewable Electricity Standard (RES), which sets a goal for 100 percent of the state's electricity retail sales to come from renewable sources by 2033. Achieving the RES will involve a combination of utility-scale renewable energy procurements, the expansion of distributed generation such as rooftop solar, and the acquisition of renewable energy certificates (RECs). These efforts may be complemented by state and federal programs designed to lower barriers to renewable energy adoption for households, businesses, and communities though recent federal policy shifts make continued availability of such programs increasingly uncertain.

Transportation

The most significant opportunities to reduce transportation emissions in Rhode Island involve decreasing overall driving and shifting the remaining vehicle fleet toward zero-emission technologies. Expanding mode shift and transit investments – including enhancements to public transit, active transportation infrastructure, and micromobility options – were all specifically modeled in the carbon reduction strategy analysis, with estimated GHG impacts based on reductions in vehicle miles traveled (VMT). At the same time, RI has already adopted the ACCII and ACT rules to accelerate the transition to zero-emission vehicles (ZEVs) across all vehicle classes.[17] However, uncertainty around implementation and enforcement underscores the importance of complementary policies and programs that continue to make EVs more affordable, lower upfront costs, and build the charging infrastructure needed to support widespread adoption. Maintaining and expanding existing initiatives, such as the state-led DRIVE EV rebate program, National Electric Vehicle Infrastructure (NEVI)-funded charger network, and public fleet and bus electrification, were also modeled in the analysis and remain essential components of a clean, equitable, and accessible transportation system for Rhode Island.

The full list of transportation strategies the state is exploring for potential implementation is presented in Table 1 below. Each strategy differs in its equity focus, level of stakeholder interest, and effectiveness in reducing GHG emissions, as illustrated in the accompanying metrics within the

[17] While most strategies represent new or enhanced initiatives, the analysis also included the individual impacts of the ACCII and ACT programs, both of which have already been adopted, but are included due to uncertainties surrounding their implementation.

table. These differences highlight how each strategy could contribute uniquely to the state's transportation and climate goals.

Table 1: Transportation-Focused Near-Term Strategies

Strategy	Equity Focus	Stakeholder Priority	GHG Reduction Impact	2025-2050 GHG Reductions (ktCO2e)
Public Fleet Electrification				200
Travel Pricing Mechanisms				500
NEVI Charger Funding				900
Transit and School Bus Electrification				700
Mode Shifting and Transit				1,000
Maintain and Adjust State EV Incentives				1,700
Advanced Clean Trucks (ACT)				3,700
Advanced Clean Cars II (ACCII)				17,300

Note: A smaller bar in the "Equity Focus" column does not indicate a negative equity impact. Rather, it reflects that the strategy contains a relatively smaller focus on equity considerations than other strategies included in the analysis.

Buildings

Decarbonizing RI's building sector will require a combination of expanded incentive programs and new policy frameworks to drive widespread electrification and efficiency. The state's long-standing energy efficiency programs and the Clean Heat RI heat pump incentive program remain the foundation of this transition, providing critical support for weatherization, equipment upgrades, and energy cost savings. The carbon reduction strategy analysis specifically modeled the GHG impacts of maintaining and adjusting these existing programs, as well as introducing new initiatives such as a potential Building Performance Standard (BPS) and Clean Heat Standard (CHS), which would establish long-term performance and emissions targets for building owners and fuel suppliers. The analysis also modeled complementary strategies like the New England Heat Pump Accelerator and Pre-Weatherization and Whole Home Electrification programs, which expand access to incentives, support workforce training, and promote equitable participation in the clean energy transition. Building decarbonization will also need to balance cost of compliance impacts, staffing and/or technical resources available to property owners and businesses. Together, maintaining existing

programs while exploring new strategies could position RI to achieve meaningful, equitable emissions reductions in the buildings sector.

The full list of building strategies the state is exploring for potential implementation is presented in Table 2 below. Each strategy differs in its equity focus, level of stakeholder interest, and effectiveness in reducing GHG emissions, as illustrated in the accompanying metrics within the table. These differences highlight how each strategy could contribute uniquely to the state's building decarbonization and climate goals.

Table 2: Buildings-Focused Near-Term Strategies

Strategy	Equity Focus	Stakeholder Priority	GHG Reduction Impact	2025-2050 GHG Reductions (ktCO2e)
All Electric New Construction				800
Maintain & Adjust State EE Incentives				1,400
Increased Pre-Weatherization + Whole Home Electrification Incentives				1,900
Government Building Decarbonization				2,100
New England Heat Pump Accelerator				7,800
Building Performance Standard				5,700
Clean Heat Standard				24,500

Note: A smaller bar in the "Equity Focus" column does not indicate a negative equity impact. Rather, it reflects that the strategy contains a relatively smaller focus on equity considerations than other strategies included in the analysis.

Industry and Waste

In RI's industrial and waste sectors, the modeled GHG reduction strategies focus on a combination of targeted standards and sustainable fuel and materials management policies. Establishing large facility emissions standards and renewable fuel blending requirements for off-road equipment can drive near-term reductions in hard-to-abate industrial activities. The team also modeled organic waste diversion strategies, including composting and anaerobic digestion, which reduce methane emissions while generating beneficial byproducts such as compost and biogas.

The full list of industry and waste strategies the state is exploring for potential implementation is presented in Table 3 below. Each strategy differs in its equity focus, level of stakeholder interest, and effectiveness in reducing GHG emissions, as illustrated in the accompanying metrics within the

table. These differences highlight how each strategy could contribute uniquely to the state's pollution reduction and climate goals.

Table 3: Industry and Waste-Focused Near-Term Strategies

Strategy	Equity Focus	Stakeholder Priority	GHG Reduction Impact	2025-2050 GHG Reductions (ktCO2e)
Large Facility Emissions Standards				500
Off Road Fleet Renewable Fuel Blending Requirements				1,400
Organic Waste Diversion				1,500

Note: A smaller bar in the "Equity Focus" column does not indicate a negative equity impact. Rather, it reflects that the strategy contains a relatively smaller focus on equity considerations than other strategies included in the analysis.

Further details on all strategies can be found in the body of the report and Appendix.

Summary of Key Findings

The key findings below capture major takeaways from the Climate Action Strategy, outlining critical insights to inform Rhode Island's next steps toward achieving its climate goals.

1. Current state laws and policies are projected to meet RI's 2030 target, but uncertainties remain
    - Under current state laws and policies, the RES, State Energy Efficiency Program, DRIVE EV Rebate Program, Clean Heat Rhode Island Program, and ACCII/ACT regulations are the largest drivers of emissions reductions.
2. There are many near-term GHG reduction strategies RI can pursue to stay on track for climate goals
3. RI stakeholders are calling for implementation of programs and near-term action to ensure RI meets the 2030 target
    - Under current state laws and policies, the RES, State Energy Efficiency Program, DRIVE EV Rebate Program, Clean Heat Rhode Island Program, and ACCII/ACT regulations are the largest drivers of emissions reductions.
4. Meeting climate goals will shift the way Rhode Islanders use technology and energy
    - Reaching the Act on Climate targets will require an increase in EV and heat pump adoption over the next five years and beyond.
    - Rhode Island's energy system is expected to transition from direct fossil fuel use toward increased electricity demand
5. Economy-wide decarbonization entails costs, but the projected societal benefits of reducing GHG emissions are projected to outweigh the costs

6. Decarbonized technologies vary in cost – some, like EV charging, are often cheaper, while others may require support to be competitive in the near future
7. Climate action is projected to deliver public health benefits for RI
8. Rhode Island's clean energy economy will add thousands of new jobs by 2035
    - Realizing the clean energy workforce potential will require targeted, short-term reskilling; clearer, more visible career pathways; and coordinated efforts to connect transferable skills to high-quality, accessible clean energy employment opportunities.
9. The RI Climate Action Strategy can advance equity if the risks and barriers are considered and addressed

Conclusions

Rhode Island's 2025 Strategy will provide options for implementation for reducing emissions while advancing equity, affordability, and a just transition for workers and environmental justice populations. Many actions, programs, laws and regulations have already been put in place to advance the state's climate goals including the Renewable Energy Standard, State Energy Efficiency Program, Advance Clean Cars II & Advanced Clean Trucks, Clean Heat Rhode Island, Electric Vehicle and Electric Bicycle Rebate Programs, Biodiesel Heating Oil Act, Regional Greenhouse Gas Initiative, and investments in offshore wind, all of which are key to advancing progress. Rhode Island has met the first GHG reduction targets set by the Act on Climate for 2020 and is on track to meet its second target for 2030 thanks to these efforts. The 2025 Climate Action Strategy will guide the state's next steps to ensure Rhode Island continues to meet the Act on Climate targets.

The federal government has spent much of 2025 eliminating climate programs, cutting clean energy and transportation funding, and proposing roll backs to environmental regulations and offshore wind project permits. 2026 will likely result in additional uncertainty for Rhode Island. However, despite the abrupt pauses, cuts and terminations to federal grants/programs/policies (e.g. Solar for All, residential solar tax credits, EV tax credits) which have led to interruptions and a great deal of uncertainty for numerous key initiatives in Rhode Island, many of which took place in the middle of the technical analysis and writing of this Strategy, Rhode Island forges ahead.

As was highlighted in the RI 2022 Climate Update, discussions of identifying and allocating resources to support ongoing and new decarbonization efforts will continue. The decarbonization and transition of our economy must be done carefully, and deliberately with affordability in mind, to meet the goals set forth in the Act on Climate. This will require both internal and external expertise and support for action across all of government. However, it is important to emphasize that acting on climate change cannot be championed by state government alone. Businesses, municipalities, non-profit leaders and residents will continue to be called up to prioritize action towards the goals of the Act on Climate. The EC4 looks forward to working with the Governor's Office and state legislative leaders beginning in 2026 to advance the priorities identified in this Strategy.