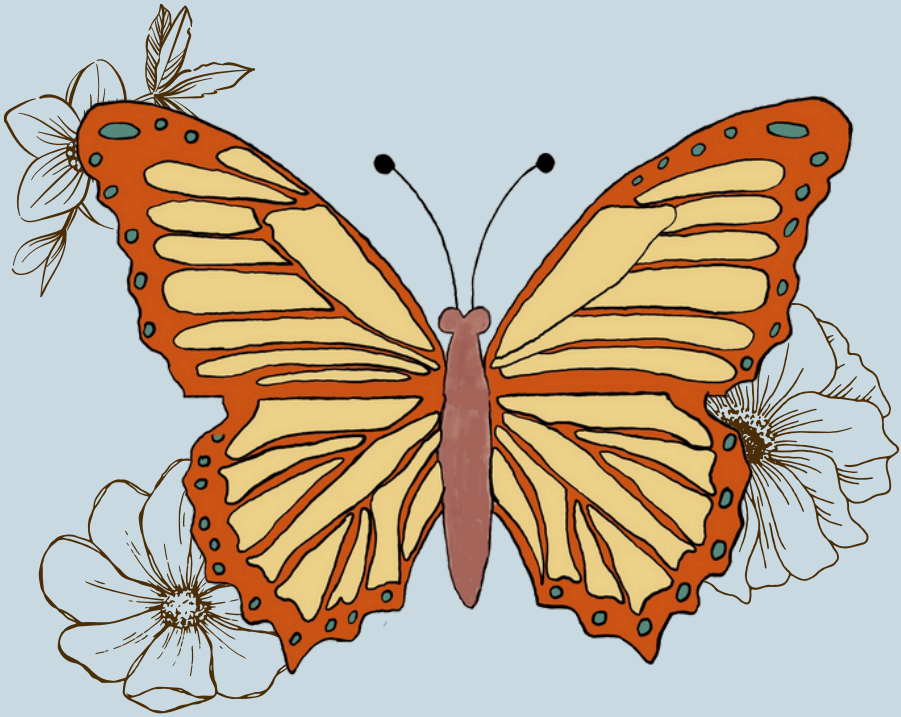
Fostering Environmental Justice in the Ocean State:

Past, Present, & Future Perspectives to Guide a Just & Equitable Transition to a Regenerative Economy



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By: Roots 2Empower & People's Port Authority

Authors:
Nicole DiPaolo
Kanz Giwa
Angel Ramos

Spanish Translation By:
Angel Ramos
Leonardo Arriola Carnicelli

Portuguese Translation by:
Elizabeth Moreira

Designed By:
Nicole DiPaolo

This booklet was created to foster conversations about environmental justice in Rhode Island. Although this history is incomplete, our goal was to provide baseline information about the extractive economy, how it started, and the ways it fuels the relationship crisis between ourselves, each other, and the Earth. We also wanted to provide an update about the work the state and federal governments are doing to address the climate crisis in support of civic engagement and transforming systems of oppression and injustice. If you have any feedback on this book or would like to share your experience with us, please send us an email at contact@roots2empower.org. We look forward to hearing from you and thank you for reading!

At Roots 2Empower

We Believe:

As society transforms to address the intersecting climate, health, and economic crises, marginalized people must be at the table, shaping the solutions.

By centering community-driven strategies that provide direct support for youth, individuals, and families facing systemic barriers and marginalization, our advocacy can create a more just and equitable society for all.

Our Mission:

Roots' mission is to enable economic empowerment for low-income, justice-impacted, and marginalized people in southern New England through civic engagement, workforce training, environmental connection, and public education.

Our Vision:

Our vision is a thriving Southern New England powered by a regenerative economy in which community members meaningfully participate in the decision-making that impacts their lives.

We envision a region where all families have access to the healing power of nature, sustainable energy, dignified housing, and nutritious food without the systemic barriers of racism, poverty, and mass incarceration.

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A Brief Introduction to the Extractive Economy

Each year it becomes more and more evident that the climate is changing. From intensifying heat waves, storms, and other weather events, to extreme fluctuations in temperature, Rhode Islanders are experiencing the effects of climate change firsthand. However, climate change is also a global issue that significantly impacts public health. Some may wonder when it became a problem. What are its causes, how do we fix it, and what impacts should we expect?

To identify the root causes of climate change, we have to go far back in time to when humans stopped living symbiotically with the natural world and began treating the earth as something to commodify for profit. Here in Rhode Island, one of the thirteen original British colonies, that history began when European settlers came here with three motives: God, gold, and glory.

When they arrived, the settlers met a robust thriving indigenous population, of which the Narragansett Tribe was the most powerful. The Europeans brought with them diseases that they had been exposed to over thousands of years as a result of the domestication of animals and a culture of domination that believed people were separate from the Earth that sustained them. This mindset was foreign to the Narragansett who, for millennia, lived in harmony with the natural world and saw the Earth as a mother, sustaining all life.

Applying their dominator mindset, the settlers began to extract land from the Narragansett, setting the region on a trajectory of exploitation.

The Narragansett Indian Tribe

- **30,000 Years Ago – Establishment in the Region:** Based on archeological evidence and oral history, the Narragansett are descendants of the Aboriginal people of this area.
- **1524 – First European Contact:** Giovanni de Verrazano visited Narragansett Bay and described the Indigenous people's agricultural and hunting lifestyle, organized under powerful kings.
- **Population in the 17th Century:** At the beginning of the 17th century, the Narragansett population ranged from 70,000 to 100,000.
- **1633–34 – First Smallpox Outbreak:** Two years before the arrival of Roger Williams, the Narragansett experienced its first smallpox epidemic where some 700 Narragansett died.
- **1636 – Land Acquisition by Roger Williams:** English colonist Roger Williams claimed to acquire land use rights to Providence from the Narragansett Sachems or chiefs. The arrival of him and his people exacerbated the spread of deadly disease that would wipe out 90% of the Indigenous population.
- **1641 – First Private Property Laws Established:** The colony of Rhode Island passed the Hunting, Property & Harvesting Act establishing the legal concept of private property and restricting indigenous use of their ancestral homelands.

- **1663 – Colony of Rhode Island Charter:** The Charter established the first settlement laws that promoted the native people's conversion to Christianity and made legal their subjugation, invasion, and destruction along with anyone else perceived as an enemy of the Colony.
- **1675 – King Philip's War:** Settlers aggressively expanded colonization efforts with growing towns, animal pens, and grazing pigs and cattle severely impacting native life, destroying their crops, and limiting their access to the forests where they would hunt and gather food for thousands of years. These tensions sparked the King Philip's War which decimated the Indigenous population in RI. Many of the survivors of the war were enslaved.
- **1676 – Indigenous Subjugation:** After gravely weakening the Indigenous population, laws were formally enacted to permit the indentured servitude of Indigenous people.
- **18th Detribalization:** In the 1700s, the Colony of RI passed a series of laws to expand its territory, further oppressing indigenous people including outlawing the practice of indigenous customs.

This early history of colonization gives a new perspective on Rhode Island's past, illuminating how the state's early success was dependent on the extraction of land and labor from the indigenous inhabitants. This culture of domination and extraction intersects with, and was severely expanded upon, by RI's leading role in the enslavement of African people beginning with the arrival of the first enslaved Africans in the Massachusetts Bay Colony in 1650 and the establishment of racial laws that institutionalized slavery into the foundations of our governmental systems.

The Enslavement of Africans in RI

- **~300,000 Years Ago:** Anthropologists estimate humans in our current evolution originated in Africa around 300,000 years ago. Approximately 5,000 years ago, indigenous people in Africa were organized under complex societies engaging in trade and industry.
- **~1650 – First Enslaved Africans Arrive:** The first enslaved Africans were brought to the Massachusetts Bay Colony, at a time when Indigenous people were already being forced into servitude.
- **1696 – First Documented Slave Ship:** The first documented slave ship, the Sea Flower, arrived in Newport, marking the beginning of Rhode Island's lead role in the Transatlantic Slave Trade.
- **1711 – Tax on Slave Imports:** The first law was established to set a tax on human cargo. Throughout the 18th century, RI enacted many laws to enforce social control over enslaved Africans and the surviving Indigenous people.
- **1709 – 1807 Slave Voyages:** Rhode Island merchants sponsored 934 slave voyages to West Africa, carrying over 150,000 enslaved Africans to the West Indies, British, and North America – more than 60% of North American ships. By the early 18th century, enslaved Africans outnumbered white indentured servants 8 to 1.
- **1774 – Prohibiting New Slaves:** Rhode Island enacted a law prohibiting the importation of new enslaved Africans but it was silent as merchants continued their participation.

- **1780 – First Black Civic Institutions:** As formerly enslaved Africans were gradually freed, their first order of business was to establish America's first Black civic institutions to support others in their emancipation. In 1780, a group of African Men assembled in Newport to establish America's first mutual aid society for Africans and later African Americans, the Free African Union Society.
- **1784 – Gradual Abolition:** Just under a decade after the United States was established as an independent nation, Rhode Island passed a law to gradually free enslaved Africans and Indigenous people. At the same time, they passed other laws to further oppress emancipated people such as barring interracial marriage.
- **1787 – Outlawing the Trade of Enslaved Africans:** Rhode Island passed a law making it illegal for any Rhode Islander to be involved in the African slave trade anywhere although slave ships continued to be launched until 1865.

Forced labor on land stolen from the Indigenous people set the stage for the US as a new nation to take advantage of the technological advancements that made way for the Industrial Revolution. Textile mills that operated machines powered by water and steam transformed RI's economic landscape from small-scale farming and artisan handcrafts to mass-produced products. Subsequent expansion into broader industrial sectors post-Civil War propelled the state into a pivotal role in America's industrial revolution.

Early Industrialization

- **1793 – Slater Mill, Pawtucket:** RI became home to the first successful water-powered cotton mill in the U.S., using cotton produced with labor from enslaved Africans in the South.
- **1809–1860 – Textile Mill Expansion:** The number of textile mills doubled with 300 textile mills in RI, and nearly 30 in Pawtucket, employing families, immigrants, and the land-poor, mostly white women and rarely people of color. This led to a shortage of domestic workers for RI's wealthy class, a role that African-heritage women would later fill.
- **1821 – First Labor Strikes:** Women's power loom weavers led the first strike over working conditions, keeping the mills closed for a week.
- **1830s – Impacts of Industrial Expansion:** RI manufacturing continued to expand becoming one of the most important industrial areas in the US Skilled blacksmiths forged anchors, molded large iron screws, and manufactured canons. Textile manufacturers discharged dyes while leather and metalworking factories discharged heavy metals and toxic compounds and woodworking factories discharged varnish, solvents, and paints.

- **1865–1877 Post-Civil War:** US emerged as an industrial giant, expanding into petroleum refining, steel manufacturing, and electrical power. Railroads expanded at this time with steam power, removing limitations that water power imposed and leading some businesses to move to the south to be closer to raw materials and cheap labor.

Transitioning into the 20th century, RI's industrial landscape underwent major transformations, marked by the rise of jewelry manufacturing in Providence and significant demographic shifts driven by both world wars and economic policies, shaping the state's urban and industrial development over the decades.

20th Century Industrialization

- **Early 1900s – Jewelry Manufacturing:** Providence became the world's largest jewelry manufacturing center with 150 companies using chemical solvents and heavy metals, including cyanide.
- **Early 1900s – Rise of Unions:** The early 1900s saw the rise of unions in Rhode Island, particularly in industries such as jewelry manufacturing. Workers organized to advocate for better wages and working conditions, strengthening the labor movement.
- **1910 – First Great Migration:** As mostly U.S.–born white males who earned higher wages, the skilled trades had more resources to sustain strikes. Factory owners recruited African American workers from the South as strikebreakers and replacements.

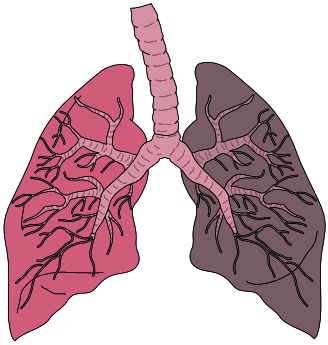
- **1930s – Industrialization and World War II**: New Deal laws aimed at protecting workers during the Great Depression did not cover sectors with predominantly African American workers, leading to the Second Great Migration of black folks to the North for employment.
- **1933 – Home Owners Loan Corporation:** New Deal legislation to prevent foreclosures underwent a process called redlining in which the government determined which neighborhoods were worthy of government investment. Neighborhoods with high percentages of minority (especially African-American) and immigrant communities were often "redlined" or deemed as risky investments and those families were made ineligible for federal assistance.
- **1944 – GI Bill:** One of the most impactful pieces of New Deal legislation was the GI Bill which provided free college and cheap home loans to millions of veterans but excluded Black veterans.
- **1956 – Federal-Aid Highway Act:** Legislation that funded and planned interstate highways across the country displaced residents and businesses, especially in African American communities. The highway drove down transportation costs and caused manufacturers to move to suburban areas and out of state. The highway separated many Rhode Islanders of African descent from the industry that remained, further disenfranchising them and heightening economic disparities.

Between 1960 and 1980, RI's manufacturing industry in traditional industrial cores declined by 20%, but the pollution from its nearly 200-year legacy remains today. To this day, RI's historic industrial centers are majority-minority communities, with a high percentage of the population living under the poverty line, having less than a high school education, speaking English as a second language or not at all, and experiencing health issues related to pollution and environmental challenge.

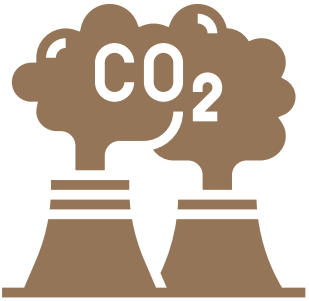
Climate & Environmental Justice

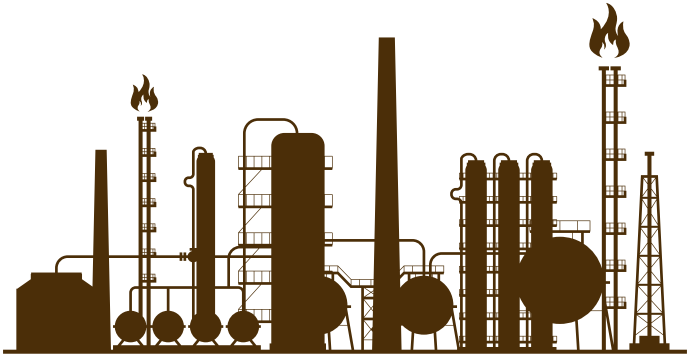
In the previous section, we looked at how the extraction of labor and natural resources led to numerous environmental, economic, and public health inequities and challenges. We refer to these practices as the extractive economy, in which a worldview of domination perceives human life and natural resources as commodities to be extracted, often using exploitative human labor, to monopolize power and wealth.

People's labor, especially of Black, Indigenous, People of Color, and low-wealth white folks, have powered the extractive economy since its inception. The labor of these marginalized groups has often been exploited by heavy-polluting industries that contribute significantly to environmental degradation, driving deforestation, pollution, fossil fuel extraction, and industrial agriculture.



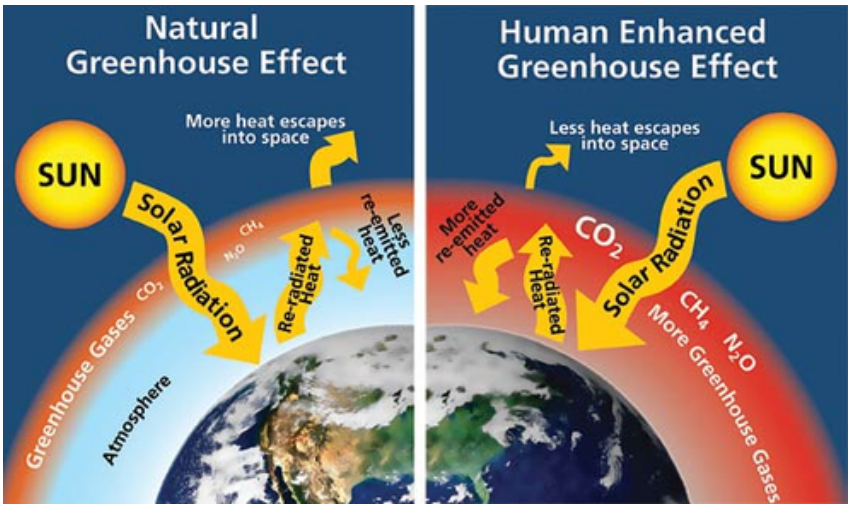
The extractive economy gained a chokehold on the planet when the first corporations began extracting fossil fuels from the earth. Fossil fuels are energy dense because they took millions of years to form as the carbon-rich remains of plants and animals became decomposed, condensed, and heated underground. Containing carbon and hydrogen, fossil fuels such as coal, gas, and oil can be burned for energy and played a major role in the Industrial Revolution. Inventors created engines that used goal to heat water, producing steam and creating pressure that was converted to mechanical energy to power factories, trains, heat homes, smelt iron, and later used in cars and other forms of transportation. With these inventions came mass production, the division of labor, and deskilling of the workforce which heightened economic inequality as working-class people suffered inhumane working conditions with few other options to sustain themselves.





Fossil Fuel Pollution: Greenhouse Gases

Burning fossil fuels like coal, oil, and gas releases gases into the atmosphere such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. Of these, carbon dioxide is released in the greatest quantity. These gases become trapped in the Earth's atmosphere, causing a greenhouse effect, as explained in the illustration below.



Credit: Will Elder, US National Park Service

Due to this effect, carbon dioxide and these other gases are referred to as greenhouse gases. In addition to burning fossil fuels, these gases enter the atmosphere from waste, and decomposing plant materials, agricultural activities, mining, industrial processes, and certain chemical reactions like cement production. It is removed when plants absorb it during photosynthesis.

Certain fluorinated gases, namely hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride are strong synthetic greenhouse gasses used in various household, commercial, and industrial applications. Often substitutes for ozone-depleting substances (chemicals like chlorofluorocarbons, hydrochlorofluorocarbons, and halons

that damage the Earth's ozone layer), these gasses are emitted in smaller amounts but have very high global warming potentials, trapping much more heat than carbon dioxide.

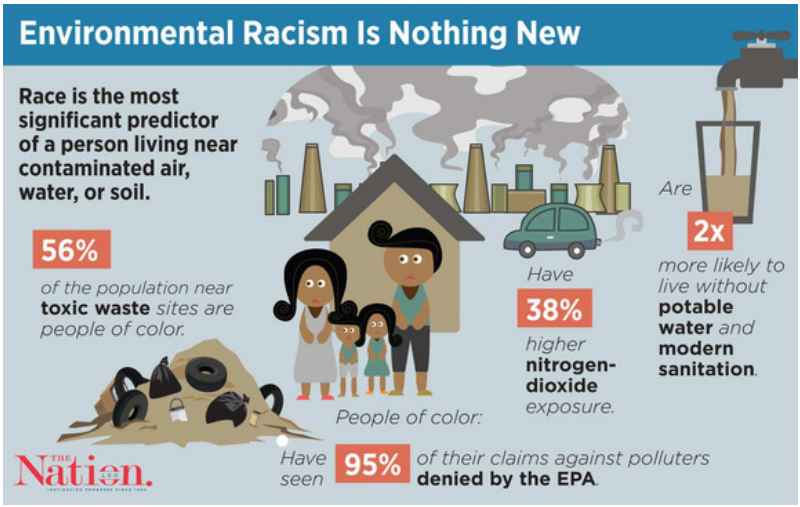
Since preindustrial times, the atmospheric concentration of carbon dioxide has increased by over 40%, methane has increased by more than 150%, and nitrous oxide has increased by approximately 20%. By comparing carbon dioxide levels in the air to those in ice cores, climate scientists estimate that current levels are substantially higher than in at least 800,000 years. As a result, the carbon humans release into the atmosphere will likely remain for thousands of years.

Climate & Community Health

As you can imagine, this pollution poses significant risks to public health both from direct contact and the broader environmental impacts that occur as a result. Greenhouse gas emissions have caused global temperatures to rise and weather patterns to change, affecting air quality while increasing levels of ground-level ozone, and fine particulate matter.

According to a study by the University of Minnesota, Rhode Island has the 6th highest pollution gap between white people and people of color in the entire country. Nationally, people of color experience 38% higher levels of one pollutant, nitrogen dioxide, compared to white people. Breathing in nitrogen dioxide day in and day out comes with a range of negative health impacts: asthma, heart disease, and low birth weights just a few. Asthma prevalence is 40% higher among low-income individuals, and air pollution is linked to 200,000 premature deaths annually. Asthma affects 10% of the Rhode Island population, higher than the national average.

The Environmental Protection Agency (EPA) is also collecting this data. In 2021, the EPA funded the Center for Air, Climate, and Energy Solutions to study racial-ethnic disparities in exposure to particulate air pollution. The study found that across all income levels and regions of the US, African Americans, Hispanics, Asians, and other people of color are disproportionately exposed to a regulated air pollutant called fine particulate matter or PM2.5. Where white people were found to have 60 percent of overall exposure to the 5,000 plus emission source types studied, people of color experience 75 percent overexposure. The public health implications of this research are severe, leading to lung and heart problems, especially in younger people, older people, those with chronic illnesses, and other vulnerable populations.



(Tracy Loeffelholz Dunn / The Nation)

In addition to pollution exposure, climate change increases the likelihood of foodborne illnesses, affects food availability, and heightens the risk of heat-related illnesses as average temperatures rise. And, as depicted in the image below, 56% of the population near toxic waste are people of color and people of color have 38% higher nitrogen dioxide exposure,

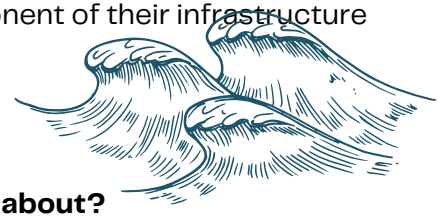
are two times more likely to live without potable water and sanitation, and 95% of their claims against polluters are denied by the EPA. The fact that these environmental hazards are frequently cited in communities of color is known as environmental racism, which refers to any policy, practice, or directive that differentially affects or disadvantages (where intended or unintended) individuals, groups, or communities based on race.

Environmental & Economic Impacts

People of color and low-income communities are disproportionately impacted by the environmental and economic impacts of climate change as well, and Rhode Island is one of the fastest-warming states in the US. Since 1895, Rhode Island's annual mean temperature has risen by about 3.4°F (1.9°C), exceeding the global mean temperature rise. Every year since 1993, temperatures have surpassed the 20th-century average. By mid-century, with global warming surpassing 2°C, Rhode Island's summer and winter temperatures are projected to increase by over 4°F (2.2°C) compared to pre-industrial levels, making future winters as warm as the warmest recent winters and future summers as hot as the coolest recent summers. Additionally, Rhode Island has seen above-average precipitation in 6 of the last 10 years, with winter precipitation expected to increase, resulting in more rain and less snow. Over the past century, the sea level around Newport, RI, has risen by about 11 inches, with projections indicating a rise of 3-5 feet by 2100, significantly affecting the coast during storm surges and high tides that can be 2-4 feet higher. With average global sea level rise having increased by 7 inches since 1900, sea levels in the Northeast have been increasing 3 to 4 times faster than the global average. These changes will negatively impact human health, ecosystems, and the economy.

As air and water temperatures rise, RI's lakes, rivers, and coastal waters will face ecological changes, becoming more susceptible to invasive species and harmful algal blooms. Species migration is already occurring, with American Lobsters moving to cooler waters and Mid-Atlantic species like Black Sea Bass appearing in New England. Rising seas can also drown salt marshes, impacting the fish and wildlife that depend on them. Beaches will also extend landward or disappear if impeded by development, affecting bird and plant habitats and reducing the space available for recreation.

As saltwater mixes with groundwater, drinking water will also be impacted for homes with wells near the shores. Septic systems near the coast could also begin to fail which could lead to coastal pond contamination. Ten out of nineteen of our state's wastewater treatment plants will also be affected by sea level rise and need to be made flood-proof, relocated, repaired, or replaced, add redundancies, or have wet weather bypass systems added. Our infrastructure is also impacted. Coastal roads can also become flooded, impacting evacuation routes and bridges during high tides and storm surges which would leave coastal populations trapped and disconnected from emergency services. To avoid this, structures and roads will need to be raised or relocated. All of these infrastructure updates will come at an expense to taxpayers and therefore the state must ensure climate resilience is a core component of their infrastructure planning.



Which of these impacts are you already experiencing? Which are you most concerned about? Send us an email at contact@roots2empower.org, or write down your thoughts to share in a group discussion.

Environmental Justice in RI

As you can see, all climate impacts relate to environmental justice – whether related to wildlife and ecosystems, infrastructure, or economics. We refer those who experience climate impacts first and worst environmental justice communities or **frontline communities** because they are on the frontlines of these impacts. In large part made possible by the redlining described in the section above, environmental hazards in Rhode Island are largely concentrated in low-income communities of color, resulting in higher incidences of respiratory diseases, cancers, and other health problems.

The Washington Park community in South Providence that borders Allen's Avenue where the Port of Providence is located is one of the most impacted in our state. The Port of Providence is the second-largest deep-water port in New England, facilitating domestic and international trade. Spanning 42 acres, the Port is home to many toxic facilities including National Grid's liquified natural gas (LNG) facility, Sims Metal Management, an asphalt plant, an oil terminal, and chemical processing plants, including Univar USA. The Univar waterfront facility alone has a 14-mile hazard radius that would need to be evacuated in case of an accident at the plant due to the approximately 3 million pounds of toxic chemicals that are stored there. On top of that, RI Recycled Metals has operated in the port for many years without the appropriate permits and has received 204 complaints between 2017 and 2022. The facility has had 2 fires in 2024 alone and 3 fires in the last 3 years. Save The Bay called the scrapyard operation a continued threat to public health and the Narragansett Bay. According to a 2014 study by Austin Becker, a University of Rhode Island assistant professor of coastal planning, the Federal Emergency Management Agency (FEMA) considers Providence to be the "Achilles heel

of the Northeast" because of its location in Narragansett Bay. Becker reported, "For context, before Hurricane Katrina caused $80 billion in damages to the Gulf Coast, FEMA considered New Orleans to be the Achilles heel of that region."

This industrial waterfront site is outside of the Providence hurricane barrier and is one of our region's most exposed areas to rising waters with 3 feet of sea level rise projected to overwhelm most of the port. In addition to these present sources of pollution, the site has previously hosted an Army rifle range, a coal gasification plant, storage facilities for propane and kerosene, and has been used to process and store hazardous substances such as ammonia, toluene, and liquefied natural gas. Despite partial cleanup efforts, the soil remains contaminated with polycyclic aromatic hydrocarbons (PAHs), known to increase the risk of lung, skin, and bladder cancers; total petroleum hydrocarbons (TPH), which can affect the central nervous system and cause adverse effects on the blood, immune system, lungs, skin, and eyes. It also contains volatile organic compounds, including the carcinogens benzene and formaldehyde; and polychlorinated biphenyls, as well as cyanide compounds, asbestos, lead, and arsenic.

The fire at the controversial scrapyard was the third in three years and second this year. (Save The Bay)

Solutions to the Climate Crisis

Science has been abundantly clear that if we continue polluting the Earth at the current rate, it may become uninhabitable. Recognizing this, the trade union movement, particularly those who work in extractive industries, established a just transition framework to ensure workers had a seat at the table as we transition to a low-carbon economy. The just transition framework was later expounded on and formalized by frontline communities to provide a model to secure a regenerative economy that transforms not only how we use natural resources but also the underlying worldview.

As the illustration to the right states, the core imperatives of a just transition are: to shift economic control to communities, democratize wealth and the workplace, advance ecological restoration, drive racial justice and social equity, re-localize most production and consumption, and retain and restore cultures and traditions. In the remainder of this booklet, we will outline Rhode Island's aspirations to justly transition to a regenerative economy, where the state is falling short, and how frontline communities are being impacted. However, to truly achieve a just transition, we need a deep democracy, in which community members like you have a voice in governance and maintain economic control.

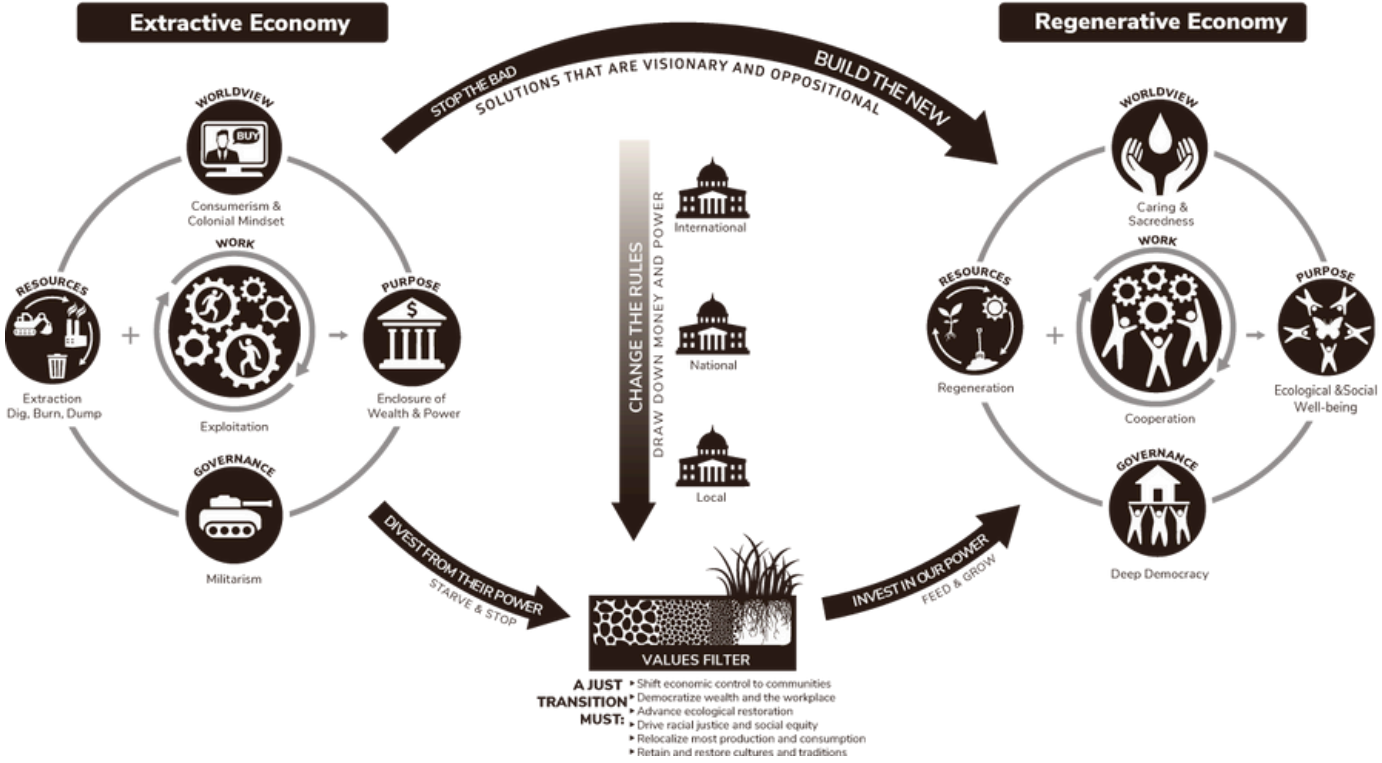
What would you need to be more engaged in governmental processes? What would it look like for communities to have economic control? Share your ideas in a group discussion and/or email them to us at contact@roots2empower.org

Historic Slater Mill, Pawtucket, RI

As home to the nation's first textile mill, Pawtucket and Central Falls face environmental challenges including water and soil pollution from the former Tidewater Coal Manufactured Gas Site, business releasing toxic chemicals including radioactive materials, former landfills, and leaking underground storage tanks. According to the EPA database, Pawtucket alone has seven superfund sites and Central Falls has one within its 1.29 square mile border. On top of that, the City of Pawtucket is attempting to turn Morley Field into a parking lot, the only greenspace in Pawtucket's District 5 also known as the Woodlawn Neighborhood. This environmental justice neighborhood is approximately 74% people of color with 59% of people living at or below the poverty rate and 29% of the population being children. The majority of families in this working-class neighborhood live in multifamily units, often with no backyard. Currently, under the jurisdiction of the National Park Service, the City has a legal requirement to maintain the Field as reasonably open, accessible, and safe for public use. The Conservation Law Foundation has criticized the move, noting concerns related to air quality impacts (due to a drastic increase in traffic for the proposed use of the site), circulation and transportation concerns related to traffic patterns, lack of meaningful community engagement (which has been a clear directive under the Biden Administration, especially when it comes to environmental justice), and incongruence with the State Comprehensive Outdoor Recreation Plan which states that conversations of open space should face the highest burden of proof of net public recreation benefit.

Analysis, Framework and Strategy

JT Framework Design: Wisdom of Frontline communities and leaders
with the support of Movement Generation

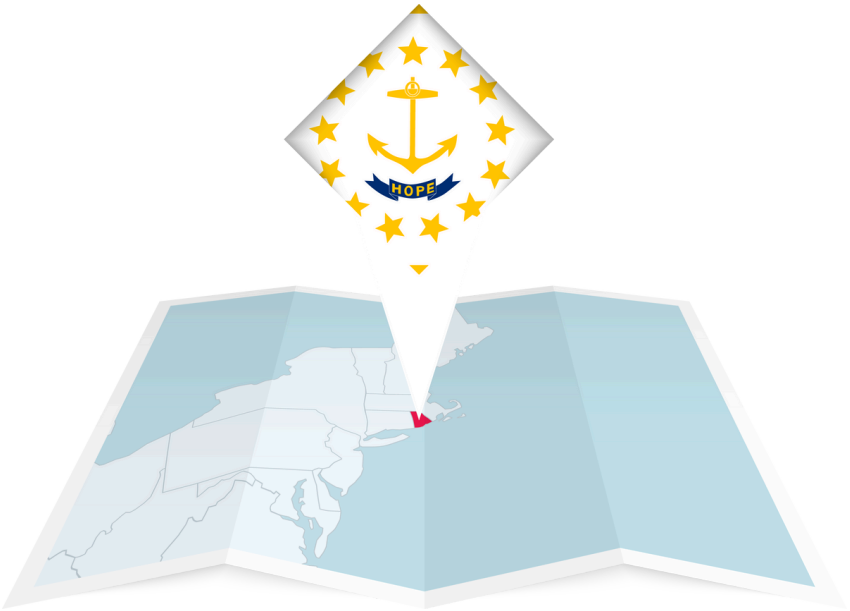


State Leadership

In ways, Rhode Island has been a leader in tackling climate change. However, that doesn't say a great deal when the US is decades late addressing its contributions to the climate crisis, despite being one of the top 3 emitters of greenhouse gas emissions along with China and the European Union. That being said, in 2021 Rhode Island passed one of the strongest climate policies in the nation, An Act on Climate, and was the first state to act a 100% Renewable Energy Standard by 2033. While An Act on Climate has several equity and justice requirements that we outline below, the state has not yet adopted a specific environmental justice policy to ensure environmental justice is embedded in all branches of state government. Further action is needed to ensure environmental justice is a core consideration in all permitting activities and land use management, with strong enforcement mechanisms, and consideration of cumulative impacts.

Act on Climate & EC4 Overview

Rhode Island enacted its first policy to address climate change in 2010 when the legislature passed The Rhode Island Climate Risk Reduction Act (RICCC) to study the projected impacts of climate change in the state and identify potential strategies for sustainability. This was about twenty years after Connecticut became the first state to pass a bill to address global warming in 1990 and the United Nations passed the first global treaty to address climate change in 1992. The UN Framework Convention on Climate Change (UNFCCC) established an annual forum, known as the Conference of the Parties, or COP, for international discussions about stabilizing greenhouse gases, and out of these meetings came the Paris Agreement in 2015, which requires all countries to set emissions-reduction pledges.



Rhode Island furthered its pledge to tackle climate change in 2014 when Governor Lincoln Chaffee signed into law The Resilient Rhode Island Act (RRIA). The RRIA established the Executive Climate Change Council as the entity responsible for guiding the state's climate work and directed them to develop a comprehensive approach to emissions reductions and climate adaptation, addressing potential threats to climate change. Despite the nation-leading ambition, many goals of the RRIA fell to the wayside once Governor Chaffee left office.

Finally, in 2021, An Act on Climate was passed, for the first time establishing the following legally binding greenhouse gas (GHG) reduction targets in the state:

- 45% below 1990 levels by 2030
- 80% below 1990 levels by 2040
- Net-zero emissions by 2050

To oversee the Act on Climate, ensuring all state agencies include climate considerations in their operations and policies to achieve these emissions reduction targets, the legislation establishes and re-establishes two advisory bodies: the Executive Climate Change Coordinating Council (EC4) Science and Technical Advisory Board (STAB). The EC4 STAB provides scientific and technical expertise, and the EC4 Advisory Board consists of state agency heads and offers broader guidance and recommendations. The EC4 is responsible for submitting a plan no later than December 31, 2025, and every 5 years thereafter, to the governor and general assembly that includes strategies, programs, and actions to meet the greenhouse gas emissions reduction targets listed above. The law also requires that the plan will have an opportunity for public comment and include strategies for an equitable transition to climate compliance for environmental justice populations while redressing past environmental and public health equities. The law also states that the plan must include "a process where the interests of and people from populations most vulnerable to the effects of climate change and at risk of pollution, displacement, energy burden, and cost influence such plan."

To ensure an equitable transition, the law also requires that the plan:

- Identifies support for workers to address inequity by creating quality and family-sustaining clean energy jobs and provide for the development of programs that directly recruit, train, and retain those underrepresented in the workforce, including women, people of color, Indigenous people, veterans, formerly incarcerated people, and people living with disabilities;
- Address recommendations to reduce health impacts associated with climate change and protect the populations most vulnerable to the effects of climate change and at risk of pollution, displacement, energy burden, and cost;

- Transparency, public reporting, and public involvement every step of the way, including through the creation of an online public dashboard to track emissions reductions and sources of energy annually.

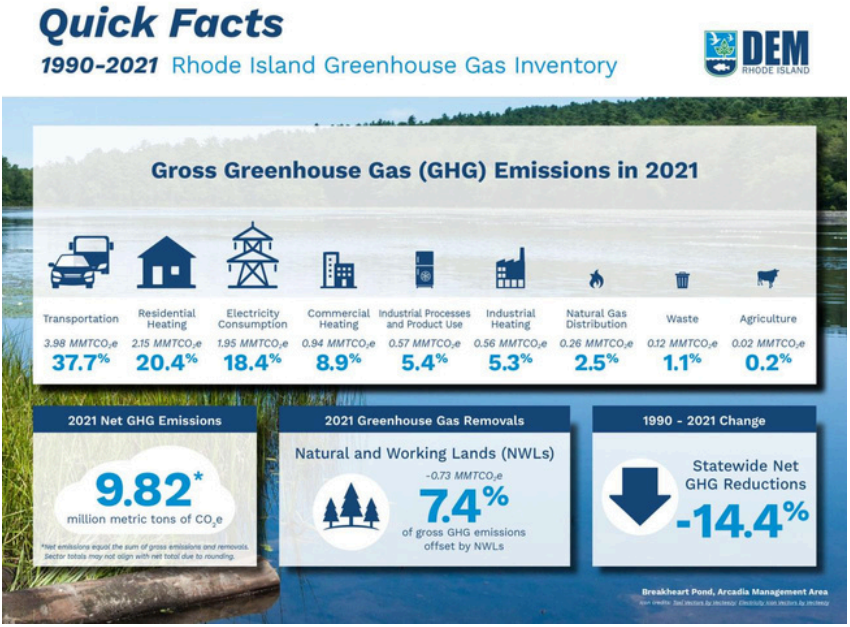
The law also establishes an EC4 advisory board with 14 members – 6 appointed by the governor, 4 representatives of city or town government, 1 from a city with a population over 50,000, one from a town with a population less than 50,000, 1 from an organization representing or serving low-income and/or minority communities, and one member of the public with expertise in, and representing the interests of, environmental justice. If the state does not meet its targets and comply with the Act, the people of Rhode Island would be able to seek nonmonetary action in Providence Superior Court for compliance.

The policy also encourages the government to work with other New England states to explore areas of mutual interest to achieve common goals. In addition, it sets a precedent that the state will work with municipalities to support the development of sustainable and resilient communities. To support this work, the law encourages the state to identify and leverage federal, state, and private funding opportunities for emissions reductions and climate change preparedness and adaptation. And, the climate plan must entail an assessment of infrastructure vulnerability and natural systems, to make for efficient long-term planning, as was noted above as a core component of reducing the costs of climate impacts.

Now that you know about the Act on Climate, will you participate in public comment periods on the 5 year plan, starting with 2025? What support would you need in order to participate, such as translation, community meetings like this to break down the information, or stipends? Share in a group discussion and/or email us at contact@roots2empower.org

Status of Emissions in Rhode Island

To assess statewide progress toward emissions reductions, the EC4 uses the Rhode Island Greenhouse Gas Inventory managed by the Department of Environmental Management (DEM). To create this inventory, DEM gathers data from the federal Environmental Protection Agency's (EPA) State Inventory Tool (SIT) which contains the latest state-level fuel consumption data from the Energy Information Administration (EIA) State Energy Data System (SEDS). DEM also uses data from our grid operator, ISO New England, to estimate emissions from electricity consumption and gathers data from intra-departmental sources including the Division of Agriculture and Forest Environment and the Office of Water Resources.



Based on these sources, in 2021 Rhode Island's total emissions of carbon dioxide were reported to be 9.82 million metric tons. These emissions primarily stem from three key sources: transportation (37.7% of the total emissions), electricity consumption (18.4%), and residential heating (20.4%). These sectors represent key sectors where efforts to reduce emissions can have a substantial impact on Rhode Island's overall carbon footprint. Transportation emissions arise from everyday activities such as commuting and travel, highlighting the impact of personal vehicle usage on the environment. Electricity consumption powers homes and businesses, encompassing everything from lighting to appliances, emphasizing the need for energy efficiency and renewable energy adoption. Residential heating, essential in Rhode Island's climate, relies heavily on fossil fuels, necessitating improvements in insulation and heating systems to curb emissions.

Based on more recent data from the EPA, emissions from Rhode Island's major power plants increased by more than a million short tons last year with four out of five natural gas facilities reporting an emissions increase between 52% and 72%. This is attributed to heightened activity in the regional grid, including dirtier (coal and oil) power plant closures in other states. However, this isn't likely to impact our emissions reduction mandates since DEM calculates electricity emissions based on consumption rather than production.

Conversely, between 2019 and 2020, transportation emissions declined by 11.6%, and residential heating emissions declined by 8.5%. Although this data shows a reduction from previous years, this was a difference largely due to the COVID-19 pandemic that significantly reduced the number of cars on the road, and the number of businesses in operation using electricity. Also, since 2020 was a significantly warmer year than 2019, a reduction in energy consumption for heat.

Although RI exceeded the 2020 benchmark of a 25% reduction below 1990 levels by 2020, that was an extremely low benchmark given the ultimate goal of net zero by 2050, especially given these anomalies in 2020. In addition, RI's inventory isn't accurately accounting the global warming potential (GWP) of methane emissions. Methane emissions, originating from sources like energy production, agriculture, landfills, and wastewater, have significant human impacts due to their potent greenhouse effect. Over a 20-year timeframe, methane is 82 times more effective than CO2 at trapping heat in the atmosphere, accelerating global warming, and intensifying climate change impacts such as more frequent and severe weather events, rising sea levels, and disruptions to ecosystems and agriculture. Beyond climate effects, methane emissions often accompany other pollutants, contributing to poor air quality and respiratory issues, particularly affecting communities near emission sources. Addressing methane emissions is critical for mitigating these impacts and plays a crucial role in global efforts to combat climate change and improve public health and environmental quality. Given methane's short atmospheric lifetime of about 12 years, adopting a 20-year GWP (Global Warming Potential) would provide a more accurate picture of its immediate effects.

Credit: REDROCK

Pawtucket Power Associates, LP natural gas powerplant began operations in 1991. It was sold to other operators and retired in 2021.

Measuring methane emissions presents numerous challenges, including technical difficulties like detecting low concentrations, dealing with spatial and temporal variability (variations in emissions across different locations and over time), and distinguishing between point sources (specific, identifiable sources such as leaks in pipelines) and diffuse sources (widespread sources such as agricultural fields). Equipment requires regular calibration and maintenance, and keeping up with technological advancements can be costly. Methodological issues involve the lack of standardized measurement methods, uncertainties in emission factors, and reliance on indirect estimation methods. Regulatory challenges include inconsistent reporting requirements and the slow adoption of the more immediate 20-year GWP value for methane's impact. Environmental and social obstacles involve accessing remote or hazardous emission sources and ensuring cooperation from communities and industries. Public health concerns and equity considerations further complicate efforts. Addressing these challenges requires improved technology, standardized methodologies, supportive regulations, and collaboration among various stakeholders to ensure accurate measurement and effective mitigation of methane emissions.

Rhode Island Photograph Collection, Providence Public Library

Manchester Street Generating Station was first constructed as a coal-burning powerplant in 1903 and was partly converted to fuel oil in 1940. In 1996 it was converted to natural gas.

Missing the Mark: Why RI failed to meet emissions reductions in 2022 and 2023

Navigating Rhode Island's climate targets has been filled with challenges and obstacles, resulting in unmet goals in 2022 and 2023. The state has faced significant issues, including inadequate funding, insufficient staffing, and a lack of detailed planning in key sectors such as energy storage and demand management.

Energy storage involves capturing energy produced at one time for use at a later time, helping to balance supply and demand, and ensuring a reliable energy supply even when renewable sources like wind and solar are not producing power. Demand management involves strategies to adjust consumer demand for energy through various methods, such as incentives for reducing usage during peak times or implementing Time-of-Use rates. Time-of-Use rates charge higher rates during periods of high demand and lower rates during off-peak times, encouraging consumers to shift their usage to times when the grid is less stressed.

On the transportation side, the state urgently needed to adopt the Advanced Clean Cars II (ACCII) and Advanced Clean Trucks (ACT) standards to promote electric mobility, which was finally passed in May 2023. ACCII standards are regulations aimed at increasing the number of zero-emission vehicles, such as electric cars, on the road. Similarly, ACT standards require manufacturers to sell a certain percentage of zero-emission trucks, thereby reducing greenhouse gas emissions from heavy-duty vehicles. Additionally, there was a critical need for incentives to support electric vehicle adoption and funding for the Transit Master Plan and Bike Mobility Plan.

In the thermal sector, Rhode Island had not yet adopted statewide Building Performance standards, updated its building energy code, or implemented a clean heat standard. Building Performance standards are regulations that set minimum energy efficiency requirements for new and existing buildings, ensuring they use less energy and produce fewer emissions. Updating the building energy code involves revising regulations to improve energy efficiency in new constructions and major renovations. A clean heat standard would require heating systems to use cleaner, more efficient energy sources, such as heat pumps, instead of fossil fuels.

In 2023, the Office of Energy Resources continued to struggle with insufficient staff and funding to implement necessary climate standards. There was a pressing need to establish standards for reducing emissions from existing buildings and to allocate funding towards building decarbonization policies. While Rhode Island was in the process of adopting the ACCII and ACT standards, they had not yet been fully implemented. As of the end of the 2024 legislative session, a building decarbonization policy still hasn't been passed, but the EC4 has been directed to create a report on how to implement benchmarking and building performance standards.

To address these shortcomings and accelerate progress, several steps are being taken. Efforts are underway to increase funding and staffing for the Office of Energy Resources to support the implementation of climate initiatives. In the electric sector, plans are being revised to include specific strategies for energy storage, demand management, and the introduction of Time-of-Use rates. In the transportation sector, the adoption of ACCII and ACT standards is being accelerated, and incentives for electric mobility are being increased. Additionally, funding is being identified and allocated for the Transit Master Plan and Bike Mobility Plan. In the thermal sector, statewide Building

Performance standards are being adopted, the state's building energy code is being updated, and a clean heat standard is being implemented.

Community Engagement

As ambitious as these efforts are, increased community engagement is necessary to drive an equitable transition. As stated in An Act on Climate, the climate plan must redress past environmental and public health inequities, which as we've outlined, run deep. Rhode Island environmental justice communities are still being impacted by historic injustices referenced at the beginning of this booklet. The communities impacted by the 1950s highway project that divided communities of color are still majority-minority, overwhelmingly low-income, and have high rates of respiratory illnesses due to exposure to the harmful emissions from transportation, contributing to adverse health outcomes and environmental injustices. Environmental racism has resulted in contaminated land and water in our state's urban core for over a century. Although historically, Rhode Island's climate planning process has suffered from a lack of meaningful community engagement, leading to insufficient input from those most affected by climate change, Roots2Empower is working to change that with community climate conversations. Through circulating this information, convening community members, and removing economic barriers to participation by providing stipends, we hope to change this trajectory. Still, the government has more work to ensure transparency and provide regular updates on climate action in ways that are accessible to the community.

Legacies of environmental injustice serve as a stark reminder of the importance of equitable urban planning and environmental justice. The state must make a consistent and long-term effort to rebuild trust among the communities that have for generations been impacted by environmental hazards, their neighborhoods sacrificed for the profit of the few, and the convenience of the collective. To make meaningful progress in redressing past injustices and building a more inclusive and sustainable future, the state must center community input and decision-making in their planning and prioritize initiatives that address their specific needs.

What environmental hazards would you have the state prioritize addressing? How would you have them address it? What support might they provide you to mitigate harm from ongoing exposure to pollution in the air, land, and water? Discuss with your group and/or email us at contact@roots2empower.org

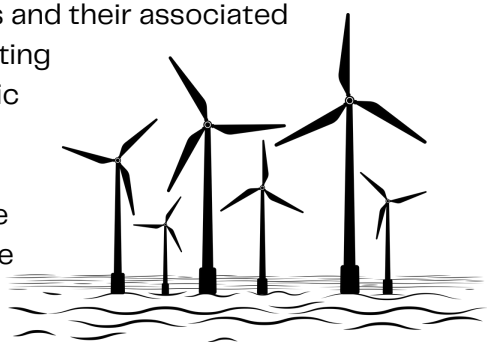
Clean Energy's Role in Reducing Pollution and Improving Public Health

One of the biggest drivers of decarbonization will be clean energy, so building equity into the foundation of this new industry is imperative. Not only is clean energy needed to reduce pollution from the combined 47.7% of RI's emissions related to residential heating, electricity consumption, and commercial heating – it is also needed to fuel the transition to electric vehicles that will significantly increase the demand for clean energy. As explained earlier, our energy systems have historically been powered by burning fossil fuels which come with grave health and environmental impacts. Carbon-free sources of energy like wind, solar, geothermal, and hydroelectric power are pivotal in cutting down greenhouse gas emissions related to fossil energy.

Unlike fossil fuels that release carbon dioxide and other harmful gasses when burned, renewable energy sources generate electricity without combustion. Solar panels harness sunlight, wind turbines capture wind energy, and hydroelectric plants use flowing water to produce power, all without emitting greenhouse gasses. Moreover, advancements in technology have made solar panels and wind turbines highly efficient, maximizing energy output while minimizing environmental impact. Additionally, clean energy plays a crucial role in combating rising temperatures associated with climate change that exacerbate extreme weather events such as heatwaves, hurricanes, and wildfires. These events also threaten public health through heat-related illnesses, injuries, and mental health impacts, as well as indirect effects such as food and waterborne diseases. By reducing greenhouse gas emissions and thus slowing climate change, clean energy helps to lessen the frequency and severity of these extreme events, thereby safeguarding public health and promoting overall well-being in communities worldwide.

RI prioritizes measuring public health impacts in its climate and clean energy initiatives. As part of its Act on Climate efforts, the state conducts health impact assessments, collects data on air quality and health outcomes, and collaborates to ensure clean energy policies promote health equity. These measures aim to mitigate climate change effects and improve overall community well-being.

Beyond environmental and health benefits, clean energy also offers significant economic advantages. The transition to renewable energy sources creates a wide range of job opportunities in sectors such as manufacturing, installation, maintenance, and research and development. These jobs span across various skill levels, providing employment and career growth potential for many. Additionally, as the technology for renewable energy continues to improve and scale, the cost of clean energy is decreasing, which can lead to lower energy prices for consumers over time. This economic shift not only stimulates job creation but also supports economic resilience by reducing dependency on volatile fossil fuel markets. By investing in clean energy, we foster a robust, sustainable economy that benefits everyone. In navigating this transition, Rhode Island must ensure that clean energy initiatives prioritize health equity and economic justice. This includes actively engaging communities most affected by environmental injustices, ensuring access to clean energy technologies and their associated health benefits. By integrating public health and economic mobility considerations into its climate strategies, Rhode Island can promote a sustainable and equitable future for all residents, enhancing both environmental resilience and community well-being.



Economic Factors

Economic Opportunities & Jobs

As Rhode Island accelerates its transition to a regenerative economy, there is a concerted effort to prioritize hiring historically excluded populations in the clean energy sector. This transition has already created thousands of new jobs in clean transportation, renewable energy, renewable and efficient heating and cooling, and energy efficiency and the state anticipates it will create thousands more. The skilled labor required for this transition creates opportunities in various sectors such as:

- **Construction and Installation:** Building solar farms, wind turbines, and energy-efficient buildings. On the residential side, installing energy-efficient heating and cooling products like heat pumps.
- **Operations and Maintenance:** Operating and maintaining clean energy technology such as solar and wind farms, battery storage, and electric vehicle infrastructure.
- **Manufacturing:** Manufacturing components for clean energy technologies such as solar panels, wind turbines, electric vehicles, and energy-efficient appliances.
- **Research and Development:** Innovation and development of new clean energy technologies.
- **Engineering:** Electrical, mechanical, environmental, and civil engineering design and optimize renewable energy systems, develop mechanical components and assess environmental impacts
- **Computer Science:** Optimizing energy systems, analyzing data, securing infrastructure, and enhancing system performance through software development, data analysis, cybersecurity, and AI/machine learning.
- **Project Management:** Overseeing project development and coordinating permitting, construction, and other aspects of project development.

Would you be interested in jobs in any of these sectors? Which ones? What transferable skills would you bring to the field? Let us know by emailing us at: contact@roots2empower.org

Current free and low-cost job training for clean technology:

Many nonprofits and the state support free and low-cost job training in the clean energy and sustainability sectors.

Building Futures offers a 5-week pre-apprenticeship program providing hands-on training and certifications in building and construction trades. To be eligible you must be 18 years or older, have a high school diploma or GED, driver's license, authorized to work in the U.S., and can pass a drug test. Learn more: www.bfri.org

Groundwork RI Job Training focuses on career pathways in the environmental sector, offering certifications and skills for jobs in hazardous materials handling/cleanup and sustainable urban landscaping. To be eligible you must be a legal U.S. resident and a high school diploma or equivalent is recommended. You may be eligible for free training based on your income or if you're a displaced worker.
Learn more: https://groundworkri.org/adult-job-training/

RI Clean Energy Internship Program managed by the Office of Energy Resources and RI Commerce provides internship opportunities in the clean energy industry for students currently enrolled in an undergraduate or graduate degree program. The program is 12 weeks and its goal is to enable students to gain significant career opportunities and support greater diversity in the clean energy workforce.
Learn more: https://refinternships.commerceri.com/clean-energy-internship-program/

Real Jobs Rhode Island, managed by the RI Department of Labor & Training offers business-led workforce development programs. Services include workforce solutions including placing new employees into job openings and upskilling current employees.
For more information, contact: dlt.realjobs@dlt.ri.gov

Community College of Rhode Island (CCRI) offers clean energy certificate programs, including Renewable Energy and Offshore Wind. The duration of programs can be as little as a half day to two days, to provide foundational knowledge and skills for careers in clean energy. Financial aid is available to reduce costs.
Learn more:
https://www.ccri.edu/workforce/workforce/renewableenergy/

Do you find these programs supportive or of interest? If yes, why? If not, do you have any ideas for programs that would be of interest or additions that could be made to these to increase accessibility?
Email us at contact@roots2empower.org

Support for Increasing Access to Clean Technology

Transitioning to clean energy and improving energy efficiency are crucial steps towards a sustainable future. Programs like Rhode Island's Clean Heat RI are instrumental in making these advancements accessible to all households, promoting both environmental and economic benefits. By offering substantial rebates and financial support, the program encourages the adoption of modern, energy-efficient heating systems, helping reduce greenhouse gas emissions and lowering energy costs for residents. Rhode Island also offers a rebate of up to $3,000 for purchasing or leasing a new or used electric vehicle. Learn more about the electric vehicle program at: https://drive.ri.gov/ev-programs/drive-plus

Clean Heat RI

Rhode Island's Clean Heat RI program, managed by the RI Office of Energy Resources, offers rebates to encourage the transition from gas, oil, or propane heating systems to more energy-efficient alternatives like heat pumps. A heat pump is a system that transfers heat between indoor and outdoor environments to provide heating and cooling. In winter, it extracts heat from outdoor air to warm indoor spaces, and in summer, it removes heat from indoors to cool them. This method is efficient because it moves heat rather than creating it through combustion, making it a cleaner and more energy-efficient option compared to traditional heating systems.

Under Rhode Island's Clean Heat RI program, households using gas, oil, or propane for heating can receive a rebate of $1,000 per ton when switching to a qualifying heat pump system. Typical installation costs range from $5,000 to $15,000. Heat pumps offer long-term savings on energy bills and lower greenhouse gas emissions by using electricity more efficiently than traditional heating methods. The rebate incentivizes the adoption of cleaner, more efficient heating technology, contributing to environmental sustainability.

Low-Income Household Subsidies under the program provide more extensive financial support. Low-income households on oil, propane, or electric resistance heating can qualify for a 100% subsidy that covers the entire cost of converting to a heat pump. Additionally, they can receive up to $3,000 to upgrade electrical wiring necessary for heat pump installation.

For more specific eligibility criteria and application details, it's recommended to contact the RI Office of Energy Resources directly or visit their official website: https://cleanheatri.com/resources/incentives/

If you're a member of a low-income household, visit your local CAP for support. More information is included on the pages to follow or find yours by visiting: www.ricommunityaction.org

Rhode Island Energy's Electric Heating and Cooling Rebates

In addition to the state incentives, Rhode Island Energy also offers incentives for converting to heat pumps that you can combine with the state incentives. If you heat with gas, oil, or propane, you can receive between $150–$350 per ton of heat. If you heat with electric resistance baseboard heating, you can qualify for $1,250 per ton. There is also an enhanced rebate for low-income customers on electric-resistance heat that covers 100% of the cost of transitioning to a heat pump.

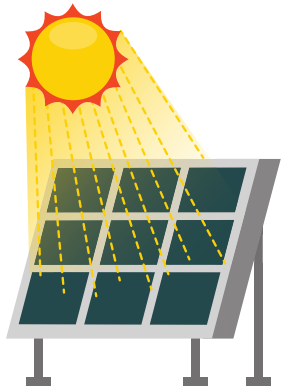
This upgrade is designed to reduce energy costs and environmental impact by utilizing electricity more efficiently. To qualify for these rebates, homes must have full insulation and the installation must be performed by an approved contractor. This ensures that the system operates safely and efficiently. Some installations may require integrated controls to optimize the heat pump's efficiency in different weather conditions and ensure consistent comfort indoors. Equipment must be installed by a program-approved contractor. To access these rebates, Rhode Island residents must have a no-cost EnergyWise Home Energy Assessment conducted by Rhode Island Energy. This assessment helps identify any additional weatherization improvements needed to maximize the efficiency of the new heat pump system, ensuring long-term energy savings and comfort.

For more details and to initiate the rebate process, homeowners are encouraged to contact Rhode Island Energy directly at 888-633-7947. https://www.rienergy.com/RI-Home/Energy-Saving-Programs/Heat-Pump-Incentives

Rhode Island Affordable Solar Access Program

The ASAP program, administered by the Rhode Island Commerce Corporation Renewable Energy Fund and supported by the Rhode Island Office of Energy Resources, aims to provide low-cost solar solutions to qualifying homes in environmental justice areas. These areas, which face significant pollution, include parts of Woonsocket, Central Falls, Pawtucket, Providence, Cranston, West Warwick, East Providence, Warren, Middletown, and Newport. Eligibility is based on income, with households earning less than or equal to 80% of the Rhode Island median income qualifying ($35,674 for a single person, $68,605 for a family of four).

The program is limited to 1–4 unit homes in these designated areas, with roofs in good condition, and solar systems that meet performance requirements. Key features include no minimum credit score, no down payment, community support, included maintenance and warranties, guaranteed first-year savings, no-cost energy efficiency services, and assured kWh performance with a money-back guarantee. The kWh performance with a money-back guarantee means that the ASAP program ensures that the solar systems installed meet specified energy production targets. If the solar system fails to produce the guaranteed amount of kilowatt-hours (kWh) of electricity over a certain period, the program provides a refund or compensation to the homeowner. This guarantee gives homeowners confidence that their solar investment will deliver the expected energy savings and benefits, providing assurance and protection against underperformance.



For more information, visit:
https://www.posigen.com/rhodeislandasap

COMING SOON!

Many more incentives are coming soon thanks to the Inflation Reduction Act that was signed into federal law in 2021. For more information about the incentives to come, you can visit Rewiring America's website at: https://homes.rewiringamerica.org/calculator

We understand that while these programs have immense health and environmental benefits, it can still feel difficult to access the benefits due to the economic challenges and systemic barriers our communities often face. We want to know – do these programs make clean energy and energy efficiency more accessible to you and your family? Why or why not? Do you have any ideas for how they might be improved to be made more accessible? We would love to hear from you. Please send us an email at contact@roots2empower.org and share your experience.

Economic Impacts of Clean Energy

Although clean energy can be more expensive, the current energy market is extremely volatile with geopolitical tensions greatly influencing the cost of energy. Currently, our power prices are extremely high due to Russia's invasion of Ukraine which significantly reduced the amount of liquefied natural gas (LNG) available in the global market, causing extreme spikes in energy prices.

According to a new report prepared by Synapse Energy Economics, Inc. for the Sierra Club, in 2030 deploying 9,000 megawatts (MW) of offshore wind energy in New England could have significant economic benefits:

- **Cost Savings:** Offshore wind energy could potentially reduce New England electricity customers' bills by approximately $630 million annually, which translates to savings of $2.79 per month for an average customer.
- **Public Health Benefits:** Clean energy can provide $362 million in annual public health benefits by reducing pollution-related health issues.
- **Natural Gas Expenditure:** The shift to clean energy could halve New England's spending on natural gas from $3 billion to approximately $1.57 billion.
- **Market Prices:** Adding 9,000 MW of offshore wind by 2030 is expected to reduce market clearing prices by an average of $31 per MWh, or 50%, by 2030.
- **Reliability:** Increasing offshore wind generation reduces reliance on costly natural gas generators, leading to price suppression in electricity markets. This shift also mitigates the risk of winter electricity blackouts by offsetting high-cost and polluting sources of energy during cold snaps, a benefit shared with solar power, energy efficiency measures, and demand response strategies.

It will take investment to get our electrical infrastructure ready to handle the influx of clean energy and get the proper storage and management systems in place. However, once we do, clean energy has the potential to significantly reduce and stabilize energy prices for the long term. Between 2019 and 2021 the price of natural gas has more than doubled and the price of crude oil has risen by a third. That is a high price to pay for energy sources that degrade human health and the environment while contributing to billions of dollars of damages every year due to climate-related disasters. Furthermore, efforts to make homes and businesses more energy efficient can save customers hundreds of dollars a year, simply by using less energy.

What are your thoughts about the costs and benefits of clean energy? Do you think it's worth it to pay more in the short term in order to access the long-term cost savings and environmental and health benefits? Share in a group discussion and/or email us at contact@roots2empower.org

Support for Low-Income Households

Between 10.8% and 12.9% of Rhode Islanders live below the poverty line, compared to the federal poverty rate of 11.5%. To address the economic disparities that people in our state face, several programs in Rhode Island provide crucial support to vulnerable populations, addressing utility costs, food security, and career opportunities in public service. These programs, such as LIHEAP for heating and cooling assistance, SNAP for food security, and initiatives by community action programs like the George Wiley Center and BVCAP, offer essential relief and pathways to economic stability. By supporting these efforts, Rhode Island aims to bridge the gap toward a sustainable and equitable energy future while ensuring immediate relief for those in need.

George Wiley Center

The George Wiley Center is a grassroots agency that organizes members of the low-income community to advocate for systematic changes aimed at alleviating problems associated with poverty. They are committed to forming cooperative alliances with church, business, labor and community groups and to bringing those directly impacted by poverty into leadership roles as community change agents. Their agency holds open (free & public) membership meetings in numerous locations around Rhode Island.

Learn more: www.GeorgeWileyCenter.org

Blackstone Valley Community Action Program

The Blackstone Valley Community Action Program (BVCAP) is a non-profit organization and part of the national Community Action Programs network. It aims to help low- to moderate-income individuals become self-reliant and responsible citizens. Funded by federal, state, and local grants, BVCAP serves over 12,000 families annually in Pawtucket, Central Falls, Cumberland, Lincoln, and Woonsocket. Its staff of over fifty people mirrors the community's ethnic diversity, allowing for culturally and linguistically sensitive support. To get in touch with them you can email them at help@bvcap.org or visit their offices at 32 Goff Ave (401-723-4520) and 210 West Ave in Pawtucket RI from M-F, 8:30 am - 4:00 pm. (401-475-5071) | www.bvcap.org

Community Action Partnership of Providence

The Community Action Partnership of Providence (CAPP), founded in November 2012, is a leading social service provider in Providence, Rhode Island. It aims to improve the lives of low-to-moderate income individuals and families in

Providence County by offering human service programs. CAPP works to reduce poverty and empower community members to achieve self-sufficiency through culturally competent services. The organization focuses on creating economic and educational opportunities, mobilizing resources to eliminate poverty, and educating the public on poverty and community revitalization.
518 Hartford Avenue Providence, RI 02909
(401-273-2000) | www.cappri.org

LIHEAP (Low Income Home Energy Assistance Program)

LIHEAP provides financial assistance for heating during the cold months and cooling during extreme heat. Eligibility is based on meeting 60% of Rhode Island's Median Income Levels. Households do not need to be on public assistance, have an unpaid heating bill, and can either rent or own their home.
The application process for the program administered by DHS involves local Community Action Program (CAP) agencies. Key points include:

- Applications are typically accepted from September through May.
- New applicants should apply in person.
- CAP agencies offer safe, convenient intake locations and can arrange for older adults or disabled individuals to apply at an intake site.
- Previous recipients of heating assistance benefits will usually receive application renewal forms by mail. Applicants should update their address with their CAP agency if necessary.

https://dhs.ri.gov/programs-and-services/energy-assistance-programs/low-income-home-energy-assistance-program-liheap-1

SNAP / EBT

The Supplemental Nutrition Assistance Program (SNAP), also known as EBT (Electronic Benefits Transfer), helps individuals and families maintain access to food, preventing malnutrition and related health issues.

Eligibility and benefit amounts for SNAP are based on income, expenses, resources, and the number of people in the household. There are two income levels: households without an older adult (age 60 or older) or someone with a disability may qualify if their income is less than 185 percent of the Federal Poverty Level (FPL), while those with an older adult or someone with a disability may qualify if their income is less than 200 percent of the FPL. Most households must meet a net income test of 100 percent FPL, but households with an elderly or disabled member may have higher gross incomes if they meet the net requirement. Households of one or two people may qualify by meeting the gross but not the net income test. Applications can be submitted online, by paper, by phone, or in person when lobbies reopen. Applicants must meet eligibility requirements, provide required documentation, and have an interview with DHS staff. A verification checklist is available for reference.

https://dhs.ri.gov/programs-and-services/supplemental-nutrition-assistance-program-snap/supplemental-nutrition-0

SUN Bucks

SUN Bucks is a benefit program for families with school-age children who were income-eligible for free or reduced-price meals during the 2023-2024 school year, providing a $120 benefit per child.

Households may be eligible for SUN Bucks if they meet any of the following criteria: receiving SNAP, Rhode Island Works, or Medicaid benefits with income at or below 185% of the federal poverty level and a child aged 6-18; having a child attending a school participating in the National School Lunch or School Breakfast Program and meeting eligibility for free or reduced-price meals; or submitting a SUN Bucks application with household income at or below 185% of the Federal Poverty Level. School-age children (ages 6-18) who receive SNAP, RI Works, or Medicaid and are income-eligible will automatically receive SUN Bucks benefits in the summer, as will families who applied for school meal benefits and were deemed eligible. Other families who meet the income criteria can complete a SUN Bucks application online or by paper to determine eligibility. The application and further details are available online.

https://dhs.ri.gov/programs-and-services/supplemental-nutrition-assistance-program-snap/supplemental-nutrition-10

What's Next?

Plans and Policies for Reducing Carbon Emissions from Buildings

To meet the state's climate targets moving forward, comprehensive building decarbonization policies are essential. This includes establishing a standard for reducing emissions from existing buildings and securing adequate funding to implement these policies. Building decarbonization is crucial in the global effort to combat climate change, particularly in urban environments. Here are key plans and policies aimed at reducing carbon emissions from buildings:

- **Stricter Building Codes:** Implementing more rigorous building codes to enhance energy efficiency and performance in new and existing buildings.
- **Encouraging Solar Panels:** Incentivizing the installation of solar panels on buildings to harness renewable energy.
- **Green Building Certification:** Promoting or requiring certifications like LEED (Leadership in Energy and Environmental Design) and BREEAM (Building Research Establishment Environmental Assessment Method) to ensure buildings meet high environmental standards.
- **Carbon Taxes:** Implementing carbon taxes to encourage building owners to reduce their carbon footprint.
- **Public Education:** Educating the public and building owners about the financial and environmental benefits of reducing carbon emissions.

Benefits of Building Decarbonization

- **Reduced Carbon Footprint:** Decreasing the carbon emissions associated with buildings.
- **Energy Cost Savings:** Lower energy consumption can lead to significant cost reductions for building owners and tenants.
- **Improved Air Quality:** Energy-efficient buildings often have better ventilation and air filtration, leading to healthier indoor environments.
- **Job Creation:** Growth in the green building sector can generate new jobs in construction, technology, and maintenance.

Challenges of Building Decarbonization

- **High Initial Costs:** Installing renewable energy systems and implementing energy-efficient technologies can be expensive.
- **Integration Difficulties:** Retrofitting existing buildings with new technologies can be complex and challenging.
- **Policy Consistency:** Ensuring that policies are consistently applied and maintained over time can be difficult.

Other Areas for State Action to Achieve Climate Goals

As Rhode Island strives to meet its ambitious climate goals, focusing on various sectors is essential to achieve meaningful reductions in greenhouse gas emissions and foster sustainability. Here are key areas where state action can make a significant impact:

Transportation

- **Public Transit Improvements:** Investing in and expanding public transportation options to reduce reliance on private cars.
- **Active Transportation:** Encouraging walking, biking, and other forms of active transportation through infrastructure improvements.
- **Electrification of Vehicles:** Promoting electric vehicles (EVs) and developing EV infrastructure.

Clean Energy:

- **Renewable Energy Sources:** Investing in wind, solar, and hydroelectric power to replace fossil fuels.
- **Energy Storage:** Developing energy storage solutions to ensure a stable supply of renewable energy.
- **Grid Modernization:** Upgrading the electrical grid to handle increased renewable energy inputs and improve efficiency.

Agriculture:

- **Sustainable Practices:** Promoting sustainable farming practices that reduce emissions and improve soil health.
- **Carbon Sequestration:** Encouraging practices that enhance the ability of soil and vegetation to capture and store carbon.

Waste Management:

- **Recycling Programs:** Expanding recycling programs to reduce waste and emissions from landfills.
- **Composting:** Encouraging composting of organic waste to reduce methane emissions.
- **Waste-to-Energy:** Developing waste-to-energy facilities to convert waste into usable energy.

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People's Port Authority –
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Pawtucket Central Falls Health Equity Zone
www.lisc.org/rhode-island/our-work/health/pawtucket-central-falls-health-equity-zone/

Movement Education Outdoors –
https://meoutdoorsri.com/

Racial & Environmental Justice Committee –
https://sites.google.com/rejc401.com/rejc401/

George Wiley Center –
https://www.georgewileycenter.org/

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