

# RGGI REGIONAL GREENHOUSE GAS INITIATIVE



# AUCTION PROCEEDS SCOPING DOCUMENT

YEARS 2023 THROUGH 2025



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# Executive Summary

The Intergovernmental Panel on Climate Change's Sixth Assessment Report finds that "global net anthropogenic Greenhouse Gas (GHG) emissions during the last decade (2010-2019) were higher than at any previous time in human history".<sup>1</sup> New Jersey continues to contribute to this phenomenon through its emissions, most notably from the transportation, buildings, and electric generation sectors. However, the human race, and New Jersey itself, is at a crossroads. We have the tools and knowledge to limit global warming. What is needed is concerted, scalable climate action. Recognizing the urgency of the climate crisis and the need for rapid transformative action, New Jersey has developed this *RGGI Auction Proceeds Scoping Document: Years 2023 through 2025* to stakeholder the state's future investments in climate, clean energy, and equity. This Scoping Document builds on the first iteration of the strategic funding plan, the [RGGI Strategic Funding Plan: Years 2020 through 2022](#) and expands upon the investments originally envisioned.

This Scoping Document was collaboratively developed by the New Jersey Department of Environmental Protection, the New Jersey Economic Development Authority, and the New Jersey Board of Public Utilities. These three state agencies are designated by law to distribute RGGI proceeds. The Scoping Document covers the three-year period, from 2023 through 2025, and identifies five initiatives that could potentially be funded by the state's RGGI auction proceeds. This document provides residents, businesses, and community leaders with a common understanding of the legal and regulatory framework surrounding the distribution of the RGGI auction proceeds and summarizes prospective initiatives illustrating how New Jersey could invest 2023-2025 proceeds.

Five initiatives are explored within this document:

- **Initiative One:** Advance Healthy Homes and a Stronger Grid
- **Initiative Two:** Catalyze Clean and Equitable Transportation
- **Initiative Three:** Strengthen New Jersey's Forests
- **Initiative Four:** Promote Blue Carbon in Coastal Habitats
- **Initiative Five:** Phasedown Highly Warming Refrigerants

The three state agencies are seeking feedback from the public not only on the prospective initiatives described within this scoping document, but also on other areas of investments that could be made with the RGGI proceeds. A series of interactive public meetings will be held on April 4<sup>th</sup>, 11<sup>th</sup>, 13<sup>th</sup>, and 18<sup>th</sup> to collect input from New Jersey's diverse stakeholders. These meetings will also provide an opportunity for the public to ask questions about the funding process and how the State is approaching the objectives that the funding investments need to further. Feedback gathered during this public stakeholder process will be utilized to finalize the RGGI Strategic Funding Plan: Years 2023 through 2025. To register for the public meetings please visit our [RGGI Engage webpage](#).

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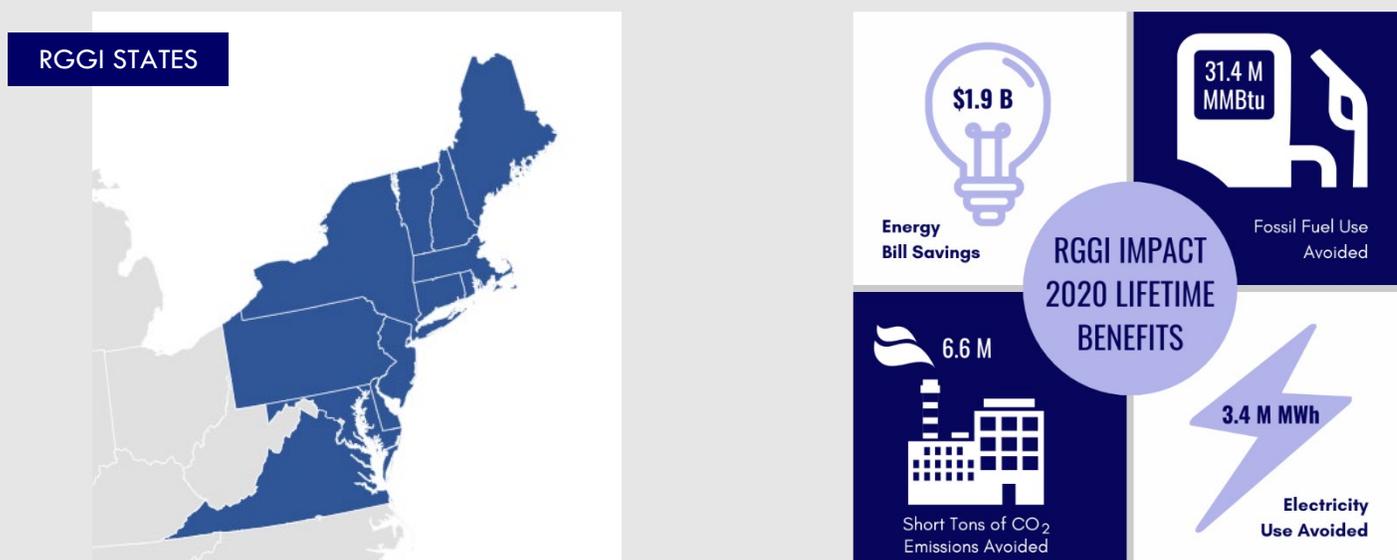
<sup>1</sup> IPCC Sixth Assessment Report, Climate Change 2022: Impacts, Adaptation and Vulnerability; Chapter 1: Point of Departure and Key Concepts, available at [www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC\\_AR6\\_WGII\\_SummaryForPolicymakers.pdf](http://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf) (last accessed August 16, 2022).

# Introduction

New Jersey formally rejoined the Regional Greenhouse Gas Initiative (RGGI) in 2020, becoming the tenth state to join the greenhouse gas cap and investment program. Since then, New Jersey's participation in the program has resulted in the investment of \$260 million dollars of auction proceeds in projects and programs designed to help meet the State's climate, clean energy, and equity goals. These initial investments were guided by the [RGGI Strategic Funding Plan: Years 2020 through 2022](#) (hereafter referred to as the 2020 Plan). As the state embarks upon its fourth year of participation in RGGI, it is required by law to develop a new Strategic Funding Plan, to steer its investments for the next three years. Three state agencies, the New Jersey Department of Environmental Protection (NJDEP), the New Jersey Economic Development Authority (NJEDA), and the New Jersey Board of Public Utilities (NJBPU) are designated to distribute RGGI proceeds. Further, the NJDEP's [Global Warming Solutions Fund Rule](#) requires these agencies to collectively develop a Strategic Funding Plan which is informed by a robust public engagement process. This *RGGI Auction Proceeds Scoping Document: Years 2023 through 2025* (hereafter referred to as the Scoping Document) fulfills this directive in two ways. First, by providing stakeholders with a common understanding of the legal and regulatory framework surrounding the distribution of the RGGI auction proceeds. Second, by outlining preliminary funding concepts for the public to comment on, to facilitate meaningful public input into the agency decision-making early in the process. The feedback collected during the public stakeholder sessions will serve to inform the *RGGI Strategic Funding Plan: Years 2023 through 2025* (hereafter referred to as the 2023 Plan).

## Regional Greenhouse Gas Initiative (RGGI): Source of Auction Proceeds

RGGI is a multi-state market-based program that requires fossil-fuel powerplants with an electricity generating capacity of 25-megawatts or more to purchase carbon dioxide (CO<sub>2</sub>) allowances equal to their annual emissions (1 allowance = 1 ton of carbon dioxide). Twelve states are members of RGGI as of publication of this Scoping Document. Collectively, the RGGI states establish an annual regional limit (cap) on CO<sub>2</sub> emissions from their combined electric power sector.



In 2023, 86 electric generating units at 28 powerplants in New Jersey will participate in RGGI.<sup>2</sup> The NJDEP maintains a [map](#) of the existing RGGI-eligible electric generating units in New Jersey, which provides additional details about the facilities. New Jersey's base annual CO<sub>2</sub> budgets for 2023, 2024 and 2025 are 16.4, 15.8, and 15.3 million tons of CO<sub>2</sub> respectively. New Jersey's auction proceeds are determined by the auction clearing price each quarter. For the upcoming three-year

<sup>2</sup> These numbers are as of publication of this scoping document

cycle, it is estimated that New Jersey can expect to receive over \$329 million dollars.<sup>3</sup> States invest proceeds from the RGGI auction in energy efficiency, renewable energy, direct energy bill assistance and other greenhouse gas reduction strategies. According to the RGGI, Inc. report *The Investment of RGGI Proceeds in 2020*<sup>4</sup> the lifetime impact of RGGI investments made in 2020, included:

- \$1.9 billion in lifetime energy bill savings
- 3.4 million MWh of electricity use avoided
- 31.4 million MMBtu of fossil fuel use avoided
- 6.6 million short tons of CO<sub>2</sub> emissions avoided

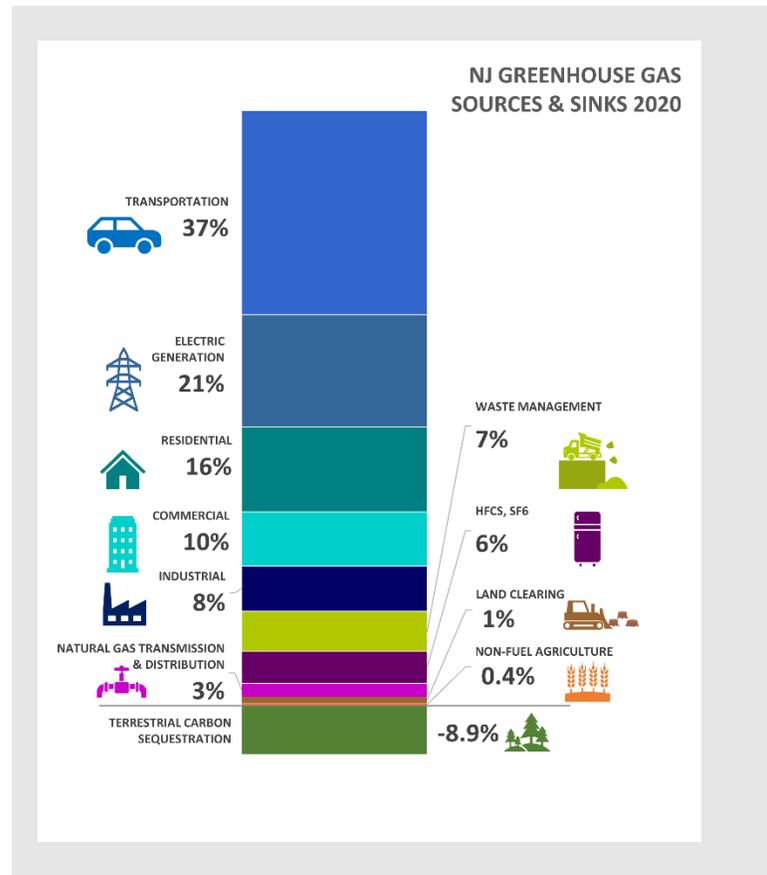
To date, New Jersey has earned approximately \$373 million in revenue due to its first three years of participation in RGGI. As of writing this plan, New Jersey has committed \$260 million in funding initiatives as outlined in the 2020 Plan. Information on selected projects can be found at the [RGGI Climate Investments Dashboard](#). This dashboard is periodically updated as projects are selected and publicly announced. Further, the 2023 Plan will also include a detailed discussion on the outcomes of the 2020 Plan investments.

## New Jersey’s Greenhouse Gas Emission Sources

Investment of RGGI auction proceeds in projects and programs that reduce New Jersey’s greenhouse gas emissions can help the state meet its goals of reducing statewide emissions 80% from a 2006 baseline by 2050 and 30% by 2030. New Jersey’s greenhouse gases are emitted into the atmosphere through a variety of sources and are also taken out of the atmosphere or sequestered through natural processes in the state’s forests and wetlands which are referred to as carbon sinks. The sources of New Jersey’s emissions in 2020 are shown in the chart on the right.

Emissions from New Jersey’s transportation sector make up the largest source of the state’s net total emissions at 37%. Emissions from electric generation are the second largest source (21%), followed by residential (16%) and commercial buildings (10%), and other sources. Emission sources are detailed more extensively in [New Jersey’s GHG Emissions Inventory Report](#).

RGGI auction proceeds could fund projects and programs to reduce greenhouse gas emissions through actions across any of the state’s emissions sectors.



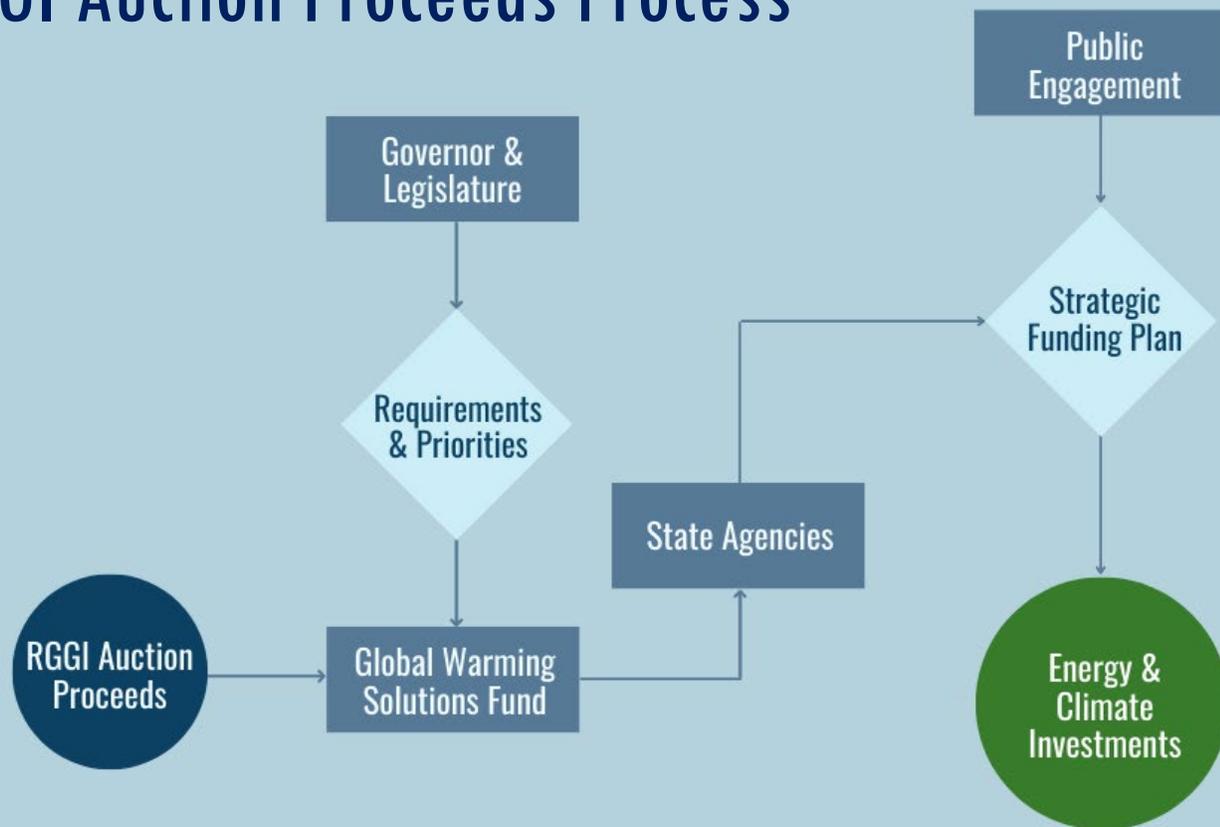
<sup>3</sup> Projected Proceeds 2023-2025: The NJ RGGI Program has estimated projected auction proceeds through the end of 2025 by taking the average of the clearing prices from auctions over the past three years. This average \$8.40 was then multiplied by the allowances for the next three-year period.

<sup>4</sup>RGGI, Inc. (2022). *The Investment of RGGI Proceeds in 2020*. Retrieved from RGGI, Inc. Website: <https://www.rggi.org/investments/proceeds-investments>

# Legal and Regulatory Framework for the Investment of RGGI Proceeds

In 2008, the Legislature passed the Global Warming Solutions Fund Act (P.L. 2008, c. 340), enabling the state to participate in a CO<sub>2</sub> emission trading program and establishing the Global Warming Solutions Fund (hereafter referred to as the Fund). Auction proceeds from the sale of RGGI allowances at quarterly auctions are deposited into the Fund and are available to state agencies for investment. State agencies receiving moneys from the Fund must comply with the requirements of the Global Warming Solutions Fund Act and the NJDEP's Global Warming Solutions Fund Rule. These statutory requirements define specific funding programs areas, allocations, and requirements by each agency, along with mandating the creation of a triennial strategic funding plan to collaboratively guide the agencies investments.

## RGGI Auction Proceeds Process



### Program Areas, Funding Allocations and Program Requirements

The state agencies receiving moneys from the Fund have legislatively mandated funding allocations and programmatic areas of focus. Funding is allocated by percentage to each agency and its investment is dictated by specific “funding lanes”. These lanes set clear boundaries about each agency’s target funding recipients and the types of projects and programs their agency’s proceeds can fund. Projects and programs receiving moneys under a sponsored initiative must align with the distributing agency’s programmatic requirements. However, the agencies have discretion in the level of funding they can devote to specific projects and programs and are not required to fund all the program types prescribed by the Global

Warming Solutions Fund Act. For example, while the Global Warming Solutions Fund Act lists five types of programs that NJEDA could fund, the NJEDA could decide to sponsor initiatives in a given Plan that support only two of those program types and split their funding between those two initiatives.

SUMMARY OF AGENCY FUNDING LANES			
	EDA	BPU	DEP
PROGRAM AREAS	Commercial, Institutional & Industrial Entities	Low Income & Moderate Income Residential Sector	Local Governments Forest Tidal Marshes
FUNDING ALLOCATION	60%	20%	10% 10%
ELIGIBILITY CRITERIA	<p><b>PROGRAMS TO SUPPORT:</b></p> <ul style="list-style-type: none"> <li>• End-use energy efficiency projects.</li> <li>• New, 'state of the art', efficient electric generation facilities.</li> <li>• Combined heat and power production and other high efficiency electric generation facilities.</li> <li>• Innovative carbon emissions abatement technologies.</li> <li>• Development of qualified offshore wind projects.</li> </ul>	<p><b>PROGRAMS TO:</b></p> <ul style="list-style-type: none"> <li>• Reduce electricity demand.</li> <li>• Reduce costs to electricity customers.</li> <li>• Support state electric vehicle goals.</li> </ul> <p>With a focus on urban areas, and includes efforts to address heat island effect and reduce impacts on ratepayers attributable to the implementation of Global Warming Response Act.</p>	<p><b>PROGRAMS TO:</b></p> <p>Plan, develop and implement measures to reduce greenhouse gas emissions including, but not limited to assistance to conduct and implement:</p> <ul style="list-style-type: none"> <li>• Energy efficiency.</li> <li>• Renewable energy.</li> <li>• Distributed energy programs.</li> <li>• Land use planning (where results are a measurable reduction of greenhouse gas emissions or energy demand).</li> </ul> <p><b>PROGRAMS TO:</b></p> <p>Enhance the stewardship and restoration of State's forests and tidal marshes that provide opportunity to sequester or reduce greenhouse gas emissions.</p>

### Economic Development Authority

Sixty percent of the Fund is allocated to NJEDA, and must be used to support one or more of the following: end use energy efficiency projects; new “state of the art” efficient electric generation facilities; combined heat and power production and other high efficiency electric generation facilities; investment in the development of innovative carbon emissions abatement technologies with significant carbon emissions reduction or avoidance potential; and develop qualified offshore wind projects and manufacturers of equipment associated with those offshore wind projects. As further mandated by statute, the eligible recipients of NJEDA’s funding are limited to Commercial, Institutional and Industrial Entities.

### Board of Public Utilities

Twenty percent of the Fund is allocated to NJBPU and must be used to support one or more of the following: reduce electricity demand; reduce electricity costs; and support state electric vehicles goals. NJBPU’s funding also mandates a focus on urban areas, including efforts to address the heat island effect and reduce impacts on ratepayers. As further dictated by statute, the eligible recipients of NJBPU’s funding are limited to the low- and moderate-income residential sector.

## Department of Environmental Protection

The final 20% of the Fund is allocated to NJDEP and is further split between two programs: local governments and stewardship and restoration of forests and tidal marshes.

### *Local Government*

Ten percent of the NJDEP's allocation from the Fund must be used to support local government efforts to plan, develop, and implement measures that reduce greenhouse gas emissions. These projects and programs can provide technical assistance, grants, or other forms of assistance to conduct and implement energy efficiency, renewable energy, and distributed energy programs; and/or land use planning where the grant or assistance results in a measurable reduction of the emission of greenhouse gases or a measurable reduction in energy demand. Local government is defined in the Global Warming Solutions Fund Rule as one or a cooperating combination of the entities defined as a contracting unit under the Local Public Contracts Law, a board of education under the Public-School Contracts Law, or a county college under the County College Contracts Law. Eligible entities include municipal and county governments, public authorities, public schools, and county colleges.

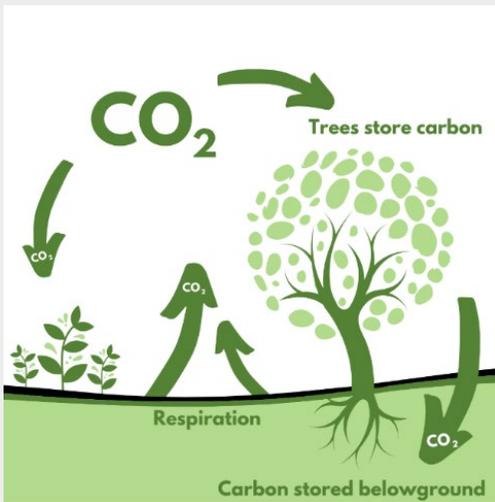
### *Carbon Sequestration in Forests and Tidal Marshes*

The NJDEP's remaining 10% of the allocation from the Fund must be used to oversee efforts to enhance the stewardship and restoration of the state's forests and tidal marshes<sup>5</sup>, which provide important opportunities to sequester or reduce greenhouse gases. The percentage of funding allocated to forests versus tidal marshes is not defined in either the Global Warming Solutions Fund Act or NJDEP's corresponding rule and is at the discretion of the Commissioner.

Projects receiving funding for carbon sequestration fall under two categories: terrestrial carbon sequestration and blue carbon. Blue carbon refers to carbon sequestration in coastal habitats, such as tidal marshes and seagrass meadows. These systems sequester more carbon per unit area than terrestrial forests and the carbon can be stored for millennia. However, these ecosystems are vulnerable to sea-level rise resulting from climate change.

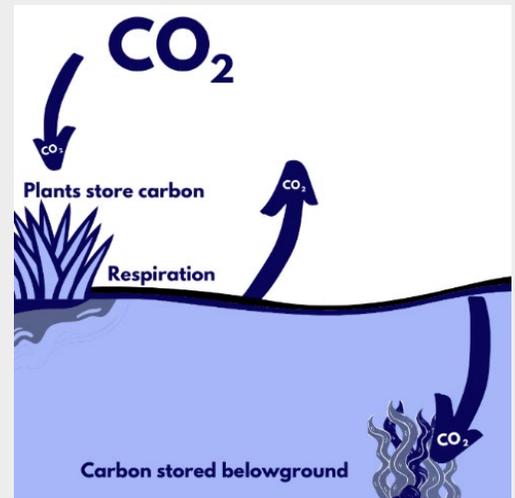
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<sup>5</sup> This is interpreted as all the forests and tidal marshes within New Jersey, not just those that are management and/or owned by the State of New Jersey.



**Terrestrial carbon sequestration** refers to the process of capturing CO<sub>2</sub> from the air by plants through photosynthesis, and storage of that carbon in woody biomass and in plant-derived soil organic carbon. While terrestrial carbon sequestration regularly occurs in nature, there are human actions that can help maintain and enhance the carbon sequestration capacity of land and help mitigate the effects of climate change. Examples of ways to promote terrestrial carbon sequestration include improved land management practices such as using cover crops and reduced tillage on croplands, improved grazing management on grasslands, reforestation (planting trees to replace those harvested for timber), and afforestation (planting trees on land that have been used for other purposes).

**Blue Carbon** refers to organic carbon that is captured and stored by the oceans and coastal ecosystems, particularly by vegetated coastal ecosystems, seagrass meadows, tidal marshes, and mangrove forests. Coastal ecosystems such as tidal marshes and seagrass meadows sequester more carbon per unit area than terrestrial forests and the carbon can be stored for millennia. Examples of ways to promote blue carbon sequestration include funding tidal wetland restoration projects, protecting undeveloped upland areas that will become vulnerable as sea level rises, and funding living shoreline projects to protect, restore, and enhance habitats.



## Strategic Funding Plan Requirements

To better coordinate the use of the Global Warming Solutions Fund, the three state agencies receiving moneys must work collaboratively to develop triennial Strategic Funding Plans. The objective of these plans is to align investments across the agencies to best meet New Jersey's clean energy and greenhouse gas reduction goals. This not only allows the agencies to address common goals via RGGI investments but helps to align spending with other state strategic climate efforts (e.g. the [Global Warming Response Act 80x50 report \(80x50 Report\)](#) and the [2019 Energy Master Plan \(2019 EMP\)](#)).

A new strategic funding plan must be released at a minimum every three years, although the state agencies have the option to revisit this sooner if there is a need. Each plan must identify the initiatives each state agency will sponsor over that three-year period. Additionally, following the release of the 2020 Plan, each subsequent funding plan must summarize project and program spending from the prior strategic funding period.

## Priority Ranking System

The NJDEP's Global Warming Solutions Fund Rule defines an initiative as "a funding strategy predicted to advance one or more of the objectives listed in N.J.A.C. 7:27D-2.2, which the agencies have identified as critical." In layman's terms, initiatives are broad areas of focus that seek to strategically address a well-defined issue or need and advance one or more of the six objectives defined in the Global Warming Solutions Fund Rule. In each strategic funding plan released, the state agencies must rank all initiatives against six core objectives.

## Six Objectives Defined in the Global Warming Solutions Fund Rule

1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;
2. Significant reductions in greenhouse gas emissions, reduction of impacts on ratepayers, and a significant contribution to the achievement of the State's 2050 Global Warming Response Act limit, relative to the cost of the project or program;
3. Reduction in energy use;
4. Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act;
5. Provide co-benefits; and
6. Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.

Specifically, every initiative in the Plan must rank the importance of each objective as either "critical" or "beneficial" where critical means necessary, and beneficial means tending to help, but not necessary. In addition, each of these six objectives must be ranked critical to at least one of the initiatives, and together, the initiatives in the Plan must rank every objective critical. The [Appendix](#) at the end of this document outlines the state agencies' guidelines for the objectives, providing insight into how the agencies will interpret the language of the objectives when making their ranking determinations.

## Initiative Selection

Each state agency that receives an allocation from the Fund must sponsor one or more of the initiatives in the strategic funding plan. Each strategic funding plan must describe the information and materials used to evaluate initiatives. Materials and resources used to evaluate initiatives can include, but are not limited to, the level of greenhouse gas emissions by sector, the level of anticipated funding from CO<sub>2</sub> allowance auctions, existing technology and its market penetration in New Jersey, resilience and mitigation planning and management approaches, input from public engagement and academic research findings.

## Measurable Benefits

The Global Warming Solutions Fund Act dictates that "the guidelines and the priority ranking system developed pursuant to this section for selecting projects or programs to be awarded grants or other forms of financial assistance from the fund shall include but need not be limited to an evaluation of each eligible project or program as to its predicted ability to:

**(1)** result in a net reduction in greenhouse gas emissions in the State or in greenhouse gas emissions from electricity produced out of the State but consumed in the State or net sequestration of carbon;

**(2)** result in significant reductions in greenhouse gases relative to the cost of the project or program and the reduction of impacts on ratepayers attributable to the implementation of P.L.2007, c.340 (C.26:2C-45 et al.), and the ability of the

project or program to significantly contribute to achievement of the State's 2020 limit and 2050 limit established pursuant to the "Global Warming Response Act," P.L.2007, c.112 (C.26:2C-37 et al.), relative to the cost of the project or program;

**(3)** reduce energy use;

**(4)** provide co-benefits to the State, including but not limited to creating job opportunities, reducing other air pollutants, reducing costs to electricity and natural gas consumers, improving local electric system reliability, and contributing to regional initiatives to reduce greenhouse gas emissions; and

**(5)** be directly responsive to the recommendations when submitted by the department to the Legislature pursuant to section 6 of the "Global Warming Response Act," P.L.2007, c.112 (C.26:2C-42).

The Global Warming Solutions Fund Rules further clarify that “an agency shall not provide funding from the Global Warming Solutions Fund, unless the program or project includes, in its design, a requirement that the critical objectives that are expected to be advanced by the program or project are measurable and verifiable for the duration of the program or project” (N.J.A.C. 7:27D-2.6). The methods used need to be sufficient to allow for an assessment of baselines, quantitative goals and quantities of reductions or sequestration resulting from or expecting to result from the project or program it is measuring. Measurements must also include an estimate of uncertainty associated with the calculations. The method(s) used must incorporate existing, scientifically accepted greenhouse gas emissions accounting protocols and other existing or otherwise readily available information, such as records of fuel or electricity use.

## Public Engagement

The Global Warming Solutions Fund Rule (N.J.A.C. 7:27-D) requires the NJEDA, NJBPU and NJDEP to host at least 4 public meetings: one joint public meeting and one agency-specific public meeting per agency.

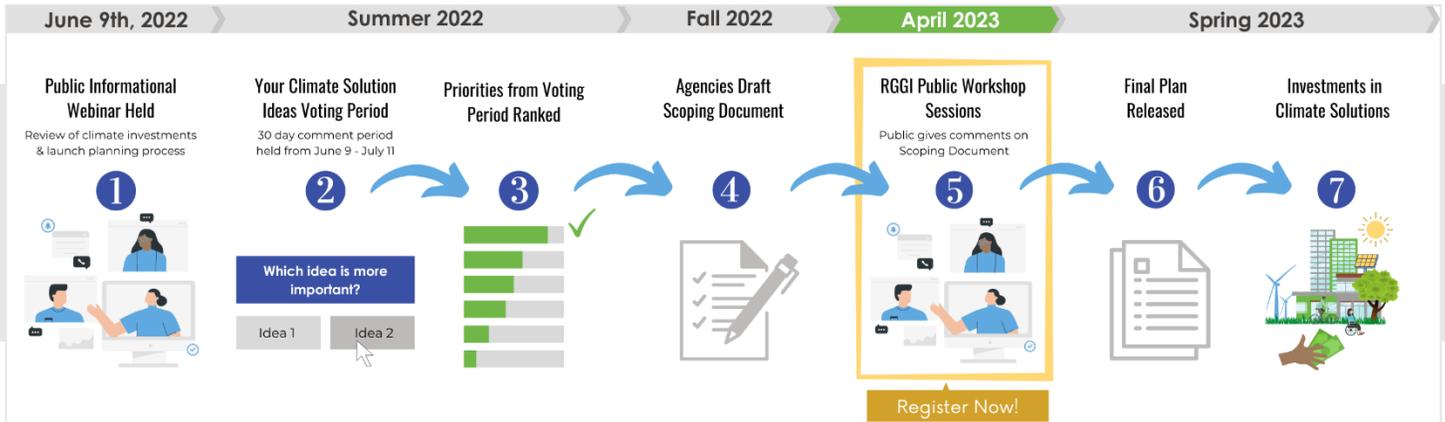
# Public Engagement

This Scoping Document reflects the voices of New Jerseyans across the state who provided input through various outreach channels. Acknowledging the strain that the COVID-19 pandemic has had on conducting in-person public events, the NJDEP, NJEDA, and NJBPU employed a multifaceted approach for gathering meaningful public input. The agencies transitioned to a fully virtual public engagement period, piloting new digital outreach mechanisms. The results from this public engagement period aided the agencies in the development of this Scoping Document.

## Public Engagement Timeline

On June 9<sup>th</sup>, 2022, the three state agencies hosted a webinar to launch a 30-day public comment period to collect public input on funding priorities. This 30-day comment period utilized a variety of virtual tools, including an online voting system with an optional demographic survey; an online comment form on the RGGI Engage Website; a dedicated email account for comment submission; and a robust social media campaign to drive utilization of outreach tools.

Following the release of this Scoping Document, the agencies will hold four public stakeholder meetings, collect more comments through the online form, and conduct outreach using social media, emails, and other communication mechanisms with the goal of gathering public feedback and input on the scoping document before finalizing the 2023 Plan.



## Public Informational Webinar

The agencies held an informational webinar on Zoom on June 9<sup>th</sup> to launch the 30-day public comment period to submit input on the development of the next funding plan. The webinar provided an overview of the state’s involvement in the RGGI program as well as the investments made and planned from the previous strategic funding plan. Attendees were also introduced to the online public engagement tool called “Your Climate Solutions Ideas.” The webinar had over 180 attendees in the live meeting and more than 490 views on YouTube.

## “Your Climate Solution Ideas”

One of the primary mechanisms used to collect public input on initial funding priorities for RGGI proceeds was an online priority ranking tool called “Your Climate Solution Ideas.” This tool was developed by the agencies with support from the NJ Office of Innovation. The tool presented users with two randomly selected climate change solution ideas from a broad list of ideas initially developed by the agencies. Users then selected the option that was more important to them or submitted their own idea. User submitted ideas were added into the list of climate change solutions for other voters to consider (over 150 ideas in total). The tool ranked all the ideas in the system based on the likelihood that a given solution will be favored over any other randomly selected solution in the list using an [algorithm](#).

From June 9<sup>th</sup> through July 11<sup>th</sup>, the public voted on their priority climate change solutions using the tool. Through the “Your Climate Solution Ideas” voting period, over 241,000 votes were collected from approximately 6,000 New Jerseyans across the state. The results of the public’s prioritized ranking of climate solution ideas can be viewed [here](#).

The agencies considered these results, along with other comments received during this initial period for public input as well as broader technology capabilities, total carbon impact, speed to implementation, long term clean energy ecosystem development, and other considerations, when developing the draft funding initiatives outlined in this Scoping Document.

# Funding Priorities

The NJDEP, NJBPU, and NJEDA determined that the focus of this second iteration of the RGGI auction proceeds scoping document should further three overarching funding priorities:

1. Providing meaningful benefits to communities most affected by pollution and climate change;
2. Catalyzing the electrification of the various modes of transportation in the State; and
3. Launching the beneficial electrification and decarbonization of the residential and commercial buildings sector.

## Disproportionately Impacted Communities

Recognizing that New Jersey’s low-income communities and communities of color are disproportionately impacted by the effects of global climate change and other forms of environmental degradation, Governor Murphy’s Executive Order No. 7 directed the NJDEP to make the funding of measures serving these communities a primary consideration when planning the distribution of RGGI proceeds. The NJDEP’s Global Warming Solutions Fund rule elevates this directive as one of the six objectives that the initiatives within the Plan must collectively rank as critical.

Governor Murphy’s Executive Order No. 23 further directed the NJDEP to develop [Furthering the Promise: A Guidance Document for Advancing Environmental Justice Across State Government](#). This guidance document, released in September of 2020, now serves to further inform and influence state agency action. The document relies on the term Environmental justice, which is defined by the U.S. Environmental Protection Agency as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. It also means no one group of people will have a disproportionate share of negative environmental consequences stemming from industrial, governmental, and commercial operations or policies. In New Jersey, communities in need of environmental justice are identified using three criteria, whether the community meets the definition of overburdened community as defined by New Jersey Environmental Justice Law, N.J.S.A. 13:1D-157<sup>6</sup> and whether a community experiences disproportionate environmental and public health stressors and/or has a lack or absence of environmental and public health benefits. Within this guidance document, three principals are highlighted: Cultivate Awareness Consistently, Empower Communities to Participate in Decision-Making Process and Plan for and Embrace Change. These three principals have served as guide stars for the development of this Scoping Document, and for the future development of the 2023 Funding Plan and its subsequent implementation.

## Electrification of Transportation

Greenhouse gas emissions from transportation have increased nationwide by about 17% since 1990 and will continue to rise unless there is substantial reduction in the use of fossil fuels. According to the NJDEP’s *2020 Statewide Greenhouse Gas Emissions Inventory*, the transportation sector remains the State’s largest source of greenhouse gas emissions, emitting approximately 37% of the State’s net total greenhouse gas emissions.<sup>7</sup> Thus, promoting the use of zero emission vehicles is a key component of New Jersey’s efforts to mitigate greenhouse gases. Notably, New Jersey’s 2019 EMP lists “Reducing Energy Consumption and Emissions from the Transportation Sector” as its number one strategy.<sup>8</sup>

In addition to the 2019 EMP’s strong position on transportation sector electrification, Governor Murphy has taken many key steps to emphasize the critical need for a smooth transition to a low carbon transportation future:

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<sup>6</sup> “Overburdened community” means any census block group, as determined in accordance with the most recent United States Census, in which: (1) at least 35 percent of the households qualify as low-income households; (2) at least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or (3) at least 40 percent of the households have limited English proficiency.

<sup>7</sup> NJDEP. (2022). *New Jersey Greenhouse Gas Inventory: 2022 Mid-Cycle Update Report*. Trenton, NJ: State of New Jersey. [https://dep.nj.gov/wp-content/uploads/ghg/2022-ghg-inventory-mcu\\_final.pdf](https://dep.nj.gov/wp-content/uploads/ghg/2022-ghg-inventory-mcu_final.pdf).

<sup>8</sup> NJBPU. (2019). *2019 New Jersey Energy Master Plan, Pathway to 2050*. Trenton, NJ: State of New Jersey

- On May 3, 2018, New Jersey joined eight other states in a Memorandum of Understanding (MOU) committed to coordinated action to ensure the successful implementation of their state zero-emission vehicle (ZEV) programs. As part of the multi-state ZEV task force, New Jersey commits to deploy 330,000 ZEVs by 2025.
- On June 3, 2019, Governor Murphy announced the New Jersey Partnership to Plug-in, a first-of-its-kind, statewide partnership to support electrification of the transportation sector in New Jersey. The Partnership to Plug-in aligns state agency roles through a MOU that requires the goals of the partnership be incorporated into the RGGI Strategic Funding Plan, and directs the agencies to use the RGGI funds, to the extent authorized by law and regulation, to further the MOU goals.
- On July 9, 2019, New Jersey joined 24 other states in a bipartisan statement issued by the United States Climate Alliance to work together to support a strong national clean car standard.
- On January 17, 2020, Governor Murphy signed the Electric Vehicle bill into law, which established near and long-term goals for charging infrastructure and adoption of new electric light-duty vehicles. The bill sets a goal that at least 330,000 light-duty vehicles in New Jersey be plug-in electric vehicles, at least 1,000 Level Two chargers be available for public use, and 15% of all multi-family properties shall be equipped for electric vehicle charging by 2025.
- In April 2021, NJEDA launched its Zero-Emissions Incentive pilot program (NJZIP) which provides vouchers to New Jersey businesses in overburdened communities to purchase medium and heavy-duty electric vehicles.
- In 2021, Governor Murphy signed the Electric Vehicle Charging Law (P.L. 2021, c. 171), which included requirements for chargers and make-ready parking places at new construction; zoning and permitting provisions for new construction; and a model electric vehicle ordinance for municipalities.
- Beginning in 2021, the NJDEP and NJBPU used RGGI proceeds to fund the incremental cost of purchasing medium and heavy-duty electric vehicles.
- Beginning in 2022, the NJBPU established a program that would utilize RGGI proceeds to fund the installation of Direct Current Fast Chargers for community medium- and heavy-duty charging and private fleet charging.

## Decarbonization of Buildings

New Jersey's residential and commercial buildings are responsible for about 26% of the state's greenhouse gas emissions. To achieve the state's goal of reducing greenhouse gas emissions 80% by 2050, emissions from the residential and commercial building sectors must be reduced by 90% to 2.7 MMT CO<sub>2</sub>e by 2050. The 2019 EMP and the 80x50 Report both underscore the importance of decarbonizing the building sector by 2050.

The 2019 EMP and the 80x50 Report identify two key strategies for the state to aggressively pursue building decarbonization:

1. Maximizing the energy efficiency of new and existing buildings; and
2. Transitioning away from fossil heating systems and appliances to electric heating systems and appliances.

In addition to the 2019 EMP and 80x50 Report's recommendations, the State has taken the following additional steps to accelerate the decarbonization of the buildings sector.

- The State is currently engaged in the [Zero Energy Building Codes Collaborative](#), a partnership between the Board of Public Utilities, the Department of Environmental Protection and the Department of Community Affairs. This partnership will further the recommendations of the 2019 EMP and 80x50 Report by establishing a zero-energy building code roadmap. The roadmap will chart a course for advancing zero energy building codes, stretch codes and opportunities for electrification within New Jersey.
- In 2018, Governor Murphy signed the [Clean Energy Act](#) which requires the State to expand renewable energy resources, energy efficiency measures, and increase energy storage capacity. The directives of the Clean Energy Act include a more aggressive [Renewable Portfolio Standard](#), where 35% of the energy sold in the state must come from qualifying clean energy sources by 2025, and 50% by 2030. New Jersey's clean energy commitments are furthered with utility energy efficiency mandates to reduce average annual electrical consumption by at least 2% and reduce average annual natural gas use by at least 0.75%.

- In August 2021, Governor Murphy signed legislation (P.L. 2021, c. 201) establishing the Garden State Commercial Property Assessed Clean Energy (C-PACE) Program to be launched by the New Jersey Economic Development Authority.
- In 2022, the Board of Public Utilities established the Whole-House Pilot Program. The Whole House Pilot Program (“WHPP”) intends to take a “whole house” approach to addressing health and safety concerns and implementing energy efficiency measures in single- and multi-family residences occupied by low- to moderate-income residents. This approach treats the entire house as a single system with interdependent components in order to identify and implement measures that will maximize overall energy efficiency, as well as minimize overall health and safety hazards. Such hazards are often barriers to energy efficiency upgrades in housing, so simultaneously addressing them in this pilot will expand access to energy efficiency offerings.
- In 2022, the Governor’s Office of Climate Action and the Green Economy and the New Jersey Board of Public Utilities launched the Statewide Clean Buildings Workgroup. The Working Group will serve as a cross-sector collaboration of stakeholders and experts in industry, government, building science, organized labor, environmental justice, and workforce development that will inform pathways to greener, cleaner buildings in New Jersey.
- In February 2023, Governor Murphy signed [Executive Order 316](#) which sets a target to install zero-carbon-emission space heating and cooling systems in 400,000 homes and 20,000 commercial properties and make 10% of all low-to-moderate income (LMI) properties electrification-ready by 2030.

# Potential Funding Initiatives (2023 through 2025)

The NJEDA, NJBPU and NJDEP need to consider a portfolio of initiatives based on the funding priorities discussed above, the legislative mandates of the Global Warming Solutions Act, the directives of Executive Order Nos. 7, 23, and 316 and public feedback collected during the preliminary public stakeholder engagement process conducted over the summer of 2022. The following are examples of initiatives that meet the agency-specific requirements, have at least one objective ranked critical, and are supported by data and research showing programs and projects under these initiatives would benefit the state's efforts to meet its clean energy and greenhouse gas reduction goals. The agencies are providing these examples to promote meaningful dialogue on what could be funded by the various agency's spending of their portion of the RGGI proceeds. While these examples are provided to stimulate meaningful public input, it is important to note that one or more of them may also end up being part of the final portfolio of initiatives agreed to by the agencies. The agencies welcome feedback from the public on the initiatives described below as well as suggestions for other initiatives.

## Initiative One: Advance Healthy Homes and a Stronger Grid

The goal of this initiative is to support projects and programs that facilitate energy efficiency, healthy homes and building decarbonization. The climate crisis requires a strategic approach that continues to decarbonize the grid while simultaneously investing in our communities to reduce energy consumption, energy burden, and overall emissions from the building sector. The State's strategy includes developing energy efficiency standards, such as benchmarking building performance and establishing minimum efficiency requirements, and investing in workforce readiness to build, install, repair, and maintain technologies critical to meet decarbonization goals.

Both the NJBPU and NJEDA could fund programs (NJBPU) and projects (NJBPU and NJEDA) under this initiative. NJBPU could focus on funding existing and new energy efficiency and building decarbonization programs and NJEDA with providing grants, loans, and other forms of financial incentives in support of commercial, industrial, and institutional establishments in clean energy projects and research.

### Projects and Programs

NJBPU funding could be dedicated to projects and programs that:

- Develop building electrification programs to reduce energy utilization, such as heat pump installation in low-to-moderate income residential properties;
- Implement the [Whole Home Pilot Program](#); and
- Continue to build upon existing energy efficiency programs, including benchmarking.

NJEDA funding could be dedicated to projects that:

- Implement grid resiliency projects which reduce electrical outages in overburdened communities;
- Finance beneficial electrification, renewable energy, distributed energy resources, or energy efficiency projects in commercial buildings; and
- Provide innovation grant funding for research, development and piloting of new renewable technologies, equipment, materials, or software, such as the Clean Tech Seed Grant Program.

### *Initial Public Input*

Projects and programs funded under an initiative focusing on grid resilience and building decarbonization are responsive to the initial public input the agencies received during the 30-day comment period in June-July 2022, in which the public ranked seven grid, renewable energy, and energy efficiency related ideas in the top 20 out of 151 options.<sup>9</sup>

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<sup>9</sup> New Jersey Department of Environmental Protection; New Jersey Board of Public Utilities; New Jersey Economic Development Authority. (2022). *Your Climate Solution Ideas Results*, can be viewed at <https://www.nj.gov/rggi/docs/rggi-aoi-results.pdf>.

### Priority Ranking

Agencies have ranked five objectives as critical for Initiative One:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon;
- Significant reductions in greenhouse gas emissions, reduction of impacts on ratepayers, and a significant contribution to the achievement of the State’s 2050 Global Warming Response Act limit, relative to the cost of the project or program;
- Be directly responsive to the recommendations submitted by the NJDEP to the Legislature pursuant to the Global Warming Response Act;
- Provide co-benefits; and
- Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.

These objectives would be used to rank all projects and programs applying for funding from the agencies sponsoring this initiative. Agencies may also include agency-specific criteria for selecting projects and programs. Details about satisfying the critical objectives and additional criteria will be provided in grant and financial aid guidelines released by each agency after the 2023 Plan is finalized.

### Agency Sponsorship

The NJBPU could dedicate all or a portion of its 20% of the Fund allocated to the low- and moderate-income residential sector to this initiative. The NJEDA could dedicate all or a portion of its 60% of the Fund allocated to industrial, commercial, and institutional entities to this initiative.

INITIATIVE 1: ADVANCE HEALTHY HOMES & A STRONGER GRID	
Priority Rankings	
Objectives	Initiative 1
1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;	C
2. Significant reductions in greenhouse gas emissions, reduction of impacts on ratepayers, and a significant contribution to the achievement of the State’s 2050 Global Warming Response Act limit, relative to the cost of the project or program;	C
3. Reduction in energy use;	
4. Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act;	C
5. Provide co-benefits; and	C
6. Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.	C
<b>Agency Sponsorship</b>  	

## Initiative Two: Catalyze Clean and Equitable Transportation

This initiative seeks to continue the work started in the prior strategic funding plan by accelerating transportation electrification with a focus on reducing emissions from transportation sources in overburdened communities. As of December 2022, there were 91,515 registered electric vehicles in the state with 1,000 charging locations, most with multiple stations or ports available for use. This represents 1% of the progress necessary to meet emission reduction goals (as identified in the 80x50 report) for transportation.

As noted in the 2020 Plan, the largest source of emissions within the transportation sector are passenger cars. However, emissions from medium- and heavy-duty vehicles especially impact New Jersey's overburdened communities. These sources include modes for transporting people, such as jitneys and buses, as well as cargo and freight-moving vehicles and other equipment that regularly operate on roads in or around disproportionately impacted communities (e.g., sanitation, delivery and drayage trucks) and off-road equipment in these same areas (e.g., cargo moving equipment at ports and airports). Continued light-, medium-, and heavy-duty incentives; and expanded charging incentives are all necessary to continue to build momentum in this space. Prioritizing RGGI proceeds for this initiative will help ensure system-level approaches that are expedient, efficient, and effective means to achieving transportation equity.

### Projects and Programs

NJDEP funding could be dedicated to projects and programs that:

- Electrify vehicles owned by local government or that provide services to local residents, such as garbage trucks, school buses, and municipal fleet vehicles;
- Fund charging hubs to serve residents in multi-unit dwellings, some of which are employed by ride hailing services; and
- Fund ride sharing/ride hailing programs including charging hubs.

NJEDA funding could be dedicated to projects and programs to:

- Turn the NJ Zero Emissions Incentive Program (NJ ZIP) into a multi-year program;
- Finance vehicle and charging infrastructure at commercial and institutional properties;
- Support technology innovation or pilot grant support, such as Hydrogen Fuel Cell development, battery recycling, or vehicle to grid pilots; and
- Fund public transit electrification.

NJBPU funding could be dedicated to projects and programs that:

- Fund vehicle charging infrastructure; and
- Promote light and medium-and-heavy duty electric vehicle adoption.

### *Initial Public Input*

Transportation related projects and programs are responsive to the initial public input the agencies received during the 30-day comment period in June-July 2022, in which the public ranked 3 transportation related ideas in the top 20 out of 151 options.

*Priority Ranking*

Agencies have ranked five objectives as critical for Initiative Two:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon;
- Reduction in energy use;
- Be directly responsive to the recommendations submitted by the NJDEP to the Legislature pursuant to the Global Warming Response Act;
- Provide co-benefits; and
- Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.

These objectives would be used to rank all projects and programs applying for funding from the agencies sponsoring this initiative. Agencies may also include agency-specific criteria for selecting projects and programs. Details about satisfying the critical objectives and additional criteria will be provided in grant and financial aid guidelines released by each agency after the 2023 Plan is finalized.

*Agency Sponsorship*

The NJDEP could dedicate all or a portion of its 10% of the Fund allocated to local governments to this initiative. The NJEDA could dedicate all or a portion of its 60% of the Fund allocated to industrial, commercial and institutional entities to this initiative. The NJBPU could dedicate all or a portion of its 20% of the Fund allocated to the low-income and moderate-income residential sector.

INITIATIVE 2: CATALYZE CLEAN, EQUITABLE TRANSPORTATION	
<i>Priority Rankings</i>	
Objectives	Initiative 2
1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;	C
2. Significant reductions in greenhouse gas emissions, reduction of impacts on ratepayers, and a significant contribution to the achievement of the State's 2050 Global Warming Response Act limit, relative to the cost of the project or program;	
3. Reduction in energy use;	C
4. Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act;	C
5. Provide co-benefits; and	C
6. Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.	C
<b>Agency Sponsorship</b>   	

## Initiative Three: Strengthen New Jersey’s Forests

Initiative Three seeks to expand on the carbon sequestration initiative from the 2020 Strategic Funding Plan. Collectively, the State’s natural resources sequester the equivalent of 8.1 million metric tons CO<sub>2</sub>, approximately 8% of the State’s total greenhouse gas emissions. While terrestrial carbon sequestration regularly occurs in nature, there are human actions that can enhance or impede the carbon sequestration capacity of land and its ability to mitigate the effects of climate change. Changes in our land use can contribute to changes in carbon storage, causing the release of greenhouse gases. In order to meet the State’s 2050 greenhouse gas limit of an 80% reduction in emissions, the State needs to, at a minimum, maintain and increase the amount of carbon sequestered in the State’s natural sinks by managing them to promote, protect, and maintain their beneficial role in the carbon cycle.

### Projects and Programs

NJDEP funding could be dedicated to projects and programs to:

- Fund on-the-ground implementation of projects that create, restore, and enhance New Jersey’s carbon sinks, such as forests, and urban trees via the Natural Climate Solutions Grant Program<sup>10</sup>;
- Support urban and community forestry in overburdened communities;
- Promote the stewardship, conservation, and management of privately held forests; and
- Improve the reforestation and management of forests on public property.

### Initial Public Input

Projects and programs focusing on terrestrial carbon sequestration are responsive to the initial public input the agencies received during the 30-day comment period in June-July 2022. The public ranked five terrestrial carbon sequestration concepts in the top 20 out of 151 ideas.<sup>11</sup>

### Priority Ranking

The agencies have ranked three objectives as critical for this initiative:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon;
- Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act; and
- Provide co-benefits.

These objectives would be used to rank all projects and programs applying for funding from the agencies sponsoring this initiative. Agencies may also include agency-specific criteria for selecting projects and programs. Details about satisfying the critical objectives and additional criteria will be provided in grant and financial aid guidelines released by each agency after the Plan is finalized.

### Agency Sponsorship

The NJDEP could dedicate a portion of its 10% of RGGI proceeds that is allocated for Tidal Marshes and Forests, towards funding this terrestrial carbon sequestration initiative.

INITIATIVE 3: STRENGTHEN NEW JERSEY FORESTS	
Priority Rankings	
Objectives	Initiative 3
1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;	C
2. Significant reductions in greenhouse gas emissions, reduction of impacts on ratepayers, and a significant contribution to the achievement of the State’s 2050 Global Warming Response Act limit, relative to the cost of the project or program;	
3. Reduction in energy use;	
4. Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act;	C
5. Provide co-benefits; and	C
6. Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.	
<b>Agency Sponsorship</b> 	

<sup>10</sup> NJ DEP launched this [grant program](#) in May 2022 using RGGI proceeds from 2020-2022 as per the 2020-22 NJ RGGI Strategic Funding Plan. Under this proposed initiative this grant program would continue.

<sup>11</sup> New Jersey Department of Environmental Protection; New Jersey Board of Public Utilities; New Jersey Economic Development Authority. (2022). *Your Climate Solution Ideas Results*, can be viewed at <https://www.nj.gov/rggi/docs/rggi-aoi-results.pdf>.

## Initiative Four: Promote Blue Carbon in Coastal Habitats

This initiative seeks to promote, protect, and maintain the beneficial role of New Jersey's tidal marshes in the carbon cycle. Blue Carbon ecosystems, such as salt marshes, tidal wetlands, and seagrass beds are particularly important in the fight against climate change.<sup>12</sup> "Blue carbon" is the carbon stored by the soils and plants in these marine systems. Coastal ecosystems such as tidal marshes and seagrass meadows sequester more carbon per unit area than terrestrial forests and the carbon can be stored for millennia.<sup>13</sup> Although salt marshes cover only a small percentage of the United States, it has been estimated that they account for 21% of the carbon sequestered by ecosystems.<sup>14</sup> New Jersey has an estimated 191,178 acres of Blue Carbon resources.<sup>15</sup> However, as these ecosystems are degraded and lost, their carbon sink capacity declines, and existing stored carbon can be released, resulting in emissions of CO<sub>2</sub> that contribute to climate change. Modeling shows that between 9 and 19% of the State's existing salt marshes could be lost by 2050 due to sea level rise.<sup>16</sup> Furthermore, 67% of New Jersey's shoreline is ranked for vulnerability to erosion as high or very high.<sup>17</sup> As the soil erodes in these systems, the carbon stored in sediments can be exposed to oxygen and released back into the atmosphere as carbon dioxide.<sup>18</sup> To meet the state's 2050 goal of 80% reduction in greenhouse gases below 2006 levels, these valuable natural features must be restored and protected.

### Projects and Programs

NJDEP funding under this initiative could be dedicated to projects and programs to:

- Fund on-the-ground implementation of projects that create, restore, and enhance New Jersey's carbon sinks, such as salt marshes and seagrass beds via the Natural Climate Solutions Grant Program;
- Fund wetland and forest restoration in areas where NJDEP has bought out homes damaged or destroyed in major flood events, leveraging funds from Blue Acres program, Federal NOAA grants, and other blue carbon grant funding sources;
- Encourage coastal habitat conservation and restoration;
- Protect undeveloped upland areas (land lying higher than where tidal flooding occurs) that will become salt marshes as sea level rises; and
- Inventory and prioritize tidal wetlands and marsh migration areas for land conservation through purchase and/or easement.

### *Initial Public Input*

Projects and programs focusing on blue carbon and tidal wetlands restoration are responsive to the initial public input the agencies received during the 30-day comment period in June-July 2022. The public ranked three blue carbon ideas in the top 20 out of 151 ideas.<sup>19</sup>

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<sup>12</sup> Howard, J. H. (2014). Coastal Blue Carbon: Methods for assessing carbon stocks and emissions factors in mangroves, tidal salt marshes, and seagrasses. Conservation International, Intergovernmental Oceanographic Commission of UNESCO, International Union for Conservation of Nature.: Arlington, Virginia, USA.

<sup>13</sup> Pidgeon, E. (2009). Carbon Sequestration by Coastal Marine Habitats: Important Missing Sinks. In D. G. Laffoley, The Management of Natural Coastal Carbon Sinks. IUCN, Gland.

<sup>14</sup> Nellemann, Christian, and Emily Corcoran, eds. Blue carbon: the role of healthy oceans in binding carbon: a rapid response assessment. UNEP/Earthprint, 2009.

<sup>15</sup> Based on land cover calculations completed by the NJDEP Bureau of GIS, January 2020.

<sup>16</sup> Lathrop, R. (2019). Documentation for the New Jersey Coastal Marsh Change Maps (2019 Version) which can be viewed through <https://www.njfloodmapper.org/>

<sup>17</sup> New Jersey Department of Environmental Protection. New Jersey Coastal management Program Section 309 Assessment & Strategy 2016-2020.

<sup>18</sup> Lovelock, Catherine; Fourqurean, James; and Morris, James. (2017). Modeled CO<sub>2</sub> Emissions from Coastal Wetland Transitions to Other Land Uses: Tidal Marshes, Mangrove Forests, and Seagrass Beds. *Frontiers in Marine Science*.

<sup>19</sup> New Jersey Department of Environmental Protection; New Jersey Board of Public Utilities; New Jersey Economic Development Authority. (2022). *Your Climate Solution Ideas Results*, can be viewed at <https://www.nj.gov/rggi/docs/rggi-aoi-results.pdf>.

*Priority Ranking*

The agencies have ranked three objectives as critical for this Initiative:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon;
- Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act; and
- Provide co-benefits.

These objectives would be used to rank all projects and programs applying for funding from the agencies sponsoring this initiative. Agencies may also include agency-specific criteria for selecting projects and programs. Details about satisfying the critical objectives and additional criteria will be provided in grant and financial aid guidelines released by each agency after the Plan is finalized.

*Agency Sponsorship*

The NJDEP could dedicate a portion of its 10% of RGGI proceeds that is allocated for Tidal Marshes and Forests, towards funding this blue carbon sequestration initiative.

INITIATIVE 4: PROMOTE BLUE CARBON IN COASTAL HABITATS	
<i>Priority Rankings</i>	
Objectives	Initiative 4
1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;	C
2. Significant reductions in greenhouse gas emissions, reduction of impacts on ratepayers, and a significant contribution to the achievement of the State's 2050 Global Warming Response Act limit, relative to the cost of the project or program;	
3. Reduction in energy use;	
4. Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act;	C
5. Provide co-benefits; and	C
6. Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.	
<b>Agency Sponsorship</b>	

## Initiative Five: Phasedown Highly Warming Refrigerants

The goal of this initiative would be to fund projects and programs that create measurable reductions in highly warming greenhouse gas emissions, primarily through fluorinated gas reduction activities. Highly warming gases have a greater ability to trap heat in the atmosphere on a pound for pound basis than CO<sub>2</sub>. Highly warming gases (like Hydrofluorocarbons (HFCs)) are the fastest-growing source of GHG emissions in New Jersey.<sup>20</sup> Commercial refrigeration is the single largest source of HFCs in the state, followed by stationary air conditioning systems.<sup>21</sup> Emissions from New Jersey's HFCs accounted for approximately 6% of the state's net total emissions in 2020.<sup>22</sup>

Program(s) under this initiative will incentivize the replacement of high-Global Warming Potential<sup>23</sup> (GWP) refrigerants in commercial-grade refrigeration and chiller systems with lower-GWP refrigerants. An incentive program would offer the potential to overcome two of the main barriers of widespread adoption of low-GWP refrigerant technologies:<sup>24</sup>

1. Higher upfront costs to replacement and retrofits; and
2. Lack of familiarity with low-GWP refrigeration.

Incentive programs can be targeted to support specific entities in the food storage, distribution, and retail market that face additional barriers to accessing upgraded, low-emission technologies. Funding could support refrigerant replacement in local government, public school and public authority buildings located in overburdened communities as well as systems in retail food establishments, grocery stores, and medical and commercial offices in overburdened communities. Newer, lower-GWP systems have the potential to provide energy cost savings to system owners.

Since many new refrigeration appliances sold today utilize HFCs and will have an average product lifetime of about 15-20 years, New Jersey faces a window of opportunity to avoid the HFCs from new purchased units by incentivizing the replacement and retrofit of older systems with those that use low and ultra-low-GWP refrigerants.<sup>25</sup> On June 6th 2022, the NJDEP adopted new rules that require facilities with a refrigeration system and/or chillers requiring 50 pounds or more of a high-GWP refrigerant to register their facility and report their usage to the NJDEP.<sup>26</sup> Using data from the new rule, future incentive programs could target the largest high-GWP refrigeration and chiller systems in the state for repair, retrofit, and replacement.

## Projects and Programs

NJDEP and NJEDA funding could be dedicated to projects and programs that:

- Fund the incremental costs of:
  - Ultra-low GWP commercial refrigeration systems or chillers at new facilities;
  - Replacing high-GWP commercial refrigeration systems or chillers with ultra-low GWP refrigerants in projects located in overburdened communities; and
  - Retrofitting existing high-GWP commercial refrigeration systems or chillers located in overburdened communities with lower-GWP refrigerants.
- Fund leak repair of commercial-grade refrigeration systems and other HFC-emitting systems in overburdened justice communities.

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<sup>20</sup> Velders, G. J. M., Solomon, S., and Daniel, J. S. 2014. Growth of climate change commitments from HFC banks and emissions, *Atmos. Chem. Phys.*, 14, 4563–4572, <https://doi.org/10.5194/acp-14-4563-2014>, 2014.

<sup>21</sup> NJDEP 2022. "Figure 20. 2019 HFC emissions profile (GWP<sub>20</sub>)". *GHG Emissions Inventory Report 2019*, 30.

<sup>22</sup> NJDEP 2022. *New Jersey Greenhouse Gas Inventory, 2022 Mid-Cycle Update Report*.

<sup>23</sup> The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO<sub>2</sub>).

<sup>24</sup> California Air Resource Board (2017). *Short-Lived Climate Pollutant Reduction Strategy*, p92.

<sup>25</sup> California Air Resource Board (2017). *Short-Lived Climate Pollutant Reduction Strategy*, 93.

<sup>26</sup> [N.J.A.C. 7:27E](#) – Subchapter 2 REGISTRATION AND REPORTING FOR REFRIGERATION SYSTEMS.

### Initial Public Input

Projects and programs focusing on highly warming gas and HFC reduction are responsive to the initial public input the agencies received during the 30-day comment period in June-July 2022. The public ranked an idea about HFC reduction favorably among climate solution ideas considered in the buildings sector.<sup>27</sup>

### Agency Sponsorship

The NJDEP could dedicate a portion of its 10% of RGGI proceeds allocated to local government to fund this initiative. The NJEDA could dedicate a portion of its 60% of RGGI proceeds allocation to support projects and programs under this initiative that encourage adoption of ultra-low GWP systems at commercial, industrial, and institutional facilities.

### Priority Ranking

Agencies have ranked four objectives as critical for this Initiative:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon;
- Reduction in energy use;
- Provide co-benefits; and
- Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.

INITIATIVE 5: PHASEDOWN HIGHLY WARMING REFRIGERANTS	
Priority Rankings	
Objectives	Initiative 5
1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;	C
2. Significant reductions in greenhouse gas emissions, reduction of impacts on ratepayers, and a significant contribution to the achievement of the State's 2050 Global Warming Response Act limit, relative to the cost of the project or program;	
3. Reduction in energy use;	C
4. Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act;	C
5. Provide co-benefits; and	C
6. Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.	C

Agency Sponsorship  

<sup>27</sup> New Jersey Department of Environmental Protection; New Jersey Board of Public Utilities; New Jersey Economic Development Authority. (2022). *Your Climate Solution Ideas Results*, can be viewed at <https://www.nj.gov/rggi/docs/rggi-aoi-results.pdf>.

# Priority Rankings Summary

As discussed above in the “Introduction, Initiative Selection, Priority Ranking System and Measurable Benefits” section, each initiative must rank the six objectives identified in the Global Warming Solutions Fund Act. Every objective must be ranked critical by at least one initiative, and each initiative must have at least one objective ranked as critical. The six example initiatives in this scoping document have met this requirement, collectively ranking all six objectives as critical.

## Objectives

1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;
2. Significant reductions in greenhouse gas emissions, reduction of impacts on ratepayers, and a significant contribution to the achievement of the State’s 2050 Global Warming Response Act limit, relative to the cost of the project or program;
3. Reduction in energy use;
4. Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act;
5. Provide co-benefits; and
6. Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.

	Initiative 1 Healthy Homes & Stronger Grid	Initiative 2 Transportation	Initiative 3 Forests	Initiative 4 Blue Carbon	Initiative 5 Highly Warming Refrigerants
1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;	C	C	C	C	C
2. Significant reductions in greenhouse gas emissions, reduction of impacts on ratepayers, and a significant contribution to the achievement of the State’s 2050 Global Warming Response Act limit, relative to the cost of the project or program;	C				
3. Reduction in energy use;		C			C
4. Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act;	C	C	C	C	C
5. Provide co-benefits; and	C	C	C	C	C
6. Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.	C	C			C
<b>Agency Sponsorship</b>					

# Next Steps

Following the release of this Scoping Document, the agencies will hold four public stakeholder meetings on April 4<sup>th</sup>, 11<sup>th</sup>, 13<sup>th</sup>, and 18<sup>th</sup>, with the goal of collecting feedback on the proposed initiatives. To register for a public stakeholder meeting and provide feedback please visit <https://www.nj.gov/rggi/engage.html>. Following the collection and consideration of public feedback the agencies will publish the 2023 Plan in the Spring of 2023.

## Public Meeting Schedule

The agencies are holding public meetings on the following dates to collect public feedback on the proposed draft initiatives:

### Meeting 1: Tuesday, April 4<sup>th</sup> (10-11:30AM) – Clean Transportation | Webinar

The NJEDA will be hosting an online webinar focused on:

**Initiative Two:** Catalyze Clean & Equitable Transportation

### Meeting 2: Tuesday, April 11<sup>th</sup> (6:30-8PM) – All Funding Initiatives | In-person + Webinar

The NJDEP, NJBPU, and NJEDA will jointly host a hybrid (in-person and simultaneously online) meeting at NJIT that will cover **all proposed funding initiatives**.

In-Person Location: *New Jersey Institute of Technology, Campus Center Atrium in Newark, NJ*

To attend the meeting virtually visit <https://www.nj.gov/rggi/engage.html> for registration information.

### Meeting 2: Thursday, April 13<sup>th</sup> (10AM-11:30AM) – Buildings, Grid, and Refrigerants | Webinar

The NJBPU will be hosting an online webinar focused on:

**Initiative One:** Advance Healthy Homes and a Stronger Grid

**Initiative Five:** Phasedown Highly Warming Refrigerants

### Meeting 3: Tuesday, April 18<sup>th</sup> (10AM-11:30AM) – Carbon Sequestration | Webinar

The NJDEP will be hosting an online webinar focused on:

**Initiative Three:** Strengthen New Jersey's Forests

**Initiative Four:** Promote Blue Carbon in Coastal Habitats

## Additional Engagement Options

The agencies welcome feedback from the public on the initiatives described in this Scoping Document and suggestions for other initiative ideas. Aside from participating in public outreach events, the public can also submit feedback on the scoping document and proposed initiatives via an **online scoping document feedback survey** that will be available at <https://www.nj.gov/rggi/engage.html>.

The public may also submit questions, comments, or feedback via email at [NJRGGI@dep.nj.gov](mailto:NJRGGI@dep.nj.gov).

# Appendix

Every Initiative in the Strategic Funding Plan must rank the importance of each objective as either critical or beneficial where critical means necessary and beneficial means tending to help, but not necessary. If the agencies rank an objective as critical to their sponsored initiative, any spending associated with that initiative must be predicted to provide measurable and verifiable benefits towards furthering that objective. To provide further clarity about what “critical” means for each objective, the agencies have developed the following working guidelines:

## **1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;**

In accordance with N.J.S.A. 26:2C-37 (the Global Warming Response Act), greenhouse gases are carbon dioxide, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and any other gas or substance determined by the Department of Environmental Protection to be a significant contributor to global warming.

A net reduction in greenhouse gas emissions is when the balance of greenhouse gas emissions is less due to the implementation of a project or program funded under a selected Initiative. In absence of the project or program occurring, overall greenhouse gas emissions would have been greater. Similarly, a net sequestration of carbon is when the balance of carbon stored/captured is greater due to the implementation of a project or program funded under a selected initiative.

## **2. Significant reductions in greenhouse gas emissions, reduction of impacts on ratepayers, and a significant contribution to the achievement of the State’s 2050 Global Warming Response Act limit, relative to the cost of the project or program;**

This Objective weighs various benefits (e.g., reduction in greenhouse gas emissions or ratepayer impacts) against the relative cost of the program to determine cost-effectiveness. Cost-effectiveness is defined as the total cost (including administrative costs and the amount of cost share (if applicable) of a project or program funded under a selected initiative divided by the specific benefits (either carbon dioxide equivalent (or CO<sub>2</sub>e<sup>28</sup>) emissions avoided or ratepayer savings) over the effective lifetime of a project or program funded under a selected initiative.

A reduction in impacts on ratepayers is defined as avoided or reduced cost of utility (gas or electric) relative to the cost of a project or program funded under a selected initiative.

A program or project implemented under an Initiative that has a “significant contribution to the achievement of the State’s limit of greenhouse gas reductions of 80% below 2006 levels by 2050” would need to result in a net greenhouse gas emission reduction that is large enough to affect the state’s greenhouse gas inventory relative to cost. Since reaching the 2050 goal will require a fundamental shift in the way the State produces and uses energy, the relative contribution of individual programs and projects would be compared to other each other as a factor for selection to receive funding.

## **3. Reduction in energy use;**

A reduction in energy use is defined as a decrease in the number of British Thermal Units (BTUs) or Megawatt-hours (Mwh) consumed by a project or program funded under a selected Initiative, with the outcome of transitioning away from carbon-intensive energy sources.

Any activity that requires energy to produce work (e.g. moving a car from point A to point B, or thermal heating) can be measured using two attributes:

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<sup>28</sup> CO<sub>2</sub>e is a standard unit for measuring carbon footprint, by expressing the impact of various greenhouse gases on the climate. It describes, for a given mixture and amount of greenhouse gases, the amount of CO<sub>2</sub> that would have the same global warming ability, when measured over a specified period (e.g., 100 years).

1. Carbon intensity of the fuel used to create energy, a measure of how much carbon per unit volume of the fuel required. When combusted, the fuel releases its carbon content as CO<sub>2</sub>; and,
2. Energy intensity, a measure of energy efficiency, of the activity to produce a given unit of work (e.g. kWh required to run the dishwasher once or miles per gallons).

In absence of the project or program occurring, energy use would have been greater.

**4. Be directly responsive to the recommendations submitted by the Department to the Legislature pursuant to the Global Warming Response Act;**

The project or program funded under a selected Initiative fulfills one of the recommendations or related actions outlined in [New Jersey's 2020 Global Warming Response Act 80x50 Report](#).

**5. Provide co-benefits; and**

Co-benefits are defined as social, economic and/or environmental benefits that will be realized due to the implementation of the project or program funded under a selected Initiative beyond the primary benefit of greenhouse gases reduced, energy saved or increase in carbon sequestration. Co-benefits include, but are not limited to, creating job opportunities, reducing criteria air pollutants and/or air toxics, water quality and stormwater protection, reducing cost to electricity and natural gas consumers, improving local electric system reliability and contributing to regional initiatives to reduce greenhouse gas emissions.

**6. Be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.**

The background document to the NJDEP's Global Warming Solutions Fund rulemaking proposal highlighted Executive Order No. 7's directive as a key Objective for directing RGGI proceeds; however, the rulemaking did not contain a definition or method for identification of the communities referred to in the Objective. Instead, the background pointed to the ongoing effort under [Executive Order No.23](#) which calls for all Executive branch departments and agencies to integrate environmental justice considerations into government decision-making. To support this effort NJDEP released [Furthering the Promise: A Guidance Document for Advancing Environmental Justice Across State Government](#) in September of 2020. This guidance document can be used by the state agencies to assist in identifying New Jersey's most overburdened communities, a term defined by the New Jersey Environmental Justice Law, N.J.S.A. 13:1D-157. NJDEP also released an interactive mapping tool, [EJMAP](#), which allows users to view overburdened communities and the environmental and public health stressors impacting these communities. The tool is primarily designed to assist NJDEP in implementing the Environmental Justice Law but has broad applicability for use by all executive branch departments and agencies in growing the State's understanding of where communities disproportionately impacted by environmental degradation and climate change are so that agencies can define solutions that deliver justice.