

# Regional Greenhouse Gas Initiative

## Auction Proceeds Scoping Document

### *Years 2020-2022*



Source: Port Authority of NY& NJ



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## Executive Summary

The evidence that the climate is changing is undeniable. In its Fifth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC) found that “human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history.”<sup>1</sup> The IPCC found that continued greenhouse gas emissions “will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems.”<sup>2</sup> In absence of action at the federal level, states must take the lead in reducing greenhouse emissions to avoid the most catastrophic impacts of climate change. One of Governor Murphy’s earliest actions was to sign Executive Order No. 7 authorizing the State to rejoin the Regional Greenhouse Gas Initiative (RGGI). Re-entering RGGI will limit carbon dioxide emissions from New Jersey’s power sector, while simultaneously allowing New Jersey to make transformational investments in clean energy to further reduce greenhouse gas emissions.

New Jersey will participate in the first RGGI auction of 2020 and proceeds will be available for investment shortly thereafter. Three state agencies receive auction proceeds, the New Jersey Department of Environmental Protection (NJDEP), the New Jersey Board of Public Utilities (NJBPU) and the New Jersey Economic Development Authority (NJEDA). NJDEP, NJBPU, and NJEDA will focus this initial three-year Strategic Funding Plan and investment of RGGI auction proceeds on two overarching priorities: (1) providing meaningful benefits to communities most affected by pollution and climate change; and (2) catalyzing the electrification of the various modes of transportation in the State. This scoping document seeks to provide residents, businesses and community leaders with a common understanding of the legal and regulatory framework surrounding the distribution of the RGGI auction proceeds and provides example initiatives for how the State could invest those proceeds. Seven example initiatives are explored within this document:

1. Clean Transportation
2. New Jersey Green Bank
3. Community Clean Energy Microgrid
4. Net-Zero Energy Solutions for Waste Management
5. Beneficial Role of New Jersey Forests in the Carbon Cycle
6. Sequester “Blue Carbon” in Coastal Habitats
7. Strengthen Clean Tech Innovation

The three state agencies are seeking feedback from the public not only on the example initiatives described within this scoping document, but also on other areas of investments that could be made with the RGGI proceeds. The workshops will also provide an opportunity to ask questions about the funding process and how the State is approaching the objectives that the funding investments need to further. A series of interactive public workshops are in the process of being scheduled to collect public input from New Jersey’s diverse stakeholders.

### **1. South Workshop, hosted by NJDEP**

November 7, 2019

6:00-9:00pm

Atlantic Cape Community College

Rutgers Life Long Learning Center, Multipurpose Room

### **2. North Workshop, hosted by NJBPU**

November 18, 2019

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<sup>1</sup> IPCC Fifth Assessment Report, Climate Change 2014, Synthesis Report Summary for Policymakers, available at [www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5\\_SYR\\_FINAL\\_SPM.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf) (last accessed September 9, 2019).

<sup>2</sup> see note 1 above

6:00-9:00pm  
New Jersey Institute of Technology  
Campus Center Ballroom A

**3. Central Workshop, hosted by the NJEDA**

TBD

**4. Coastal Workshop, hosted by the NJDEP**

TBD

**5. Webinar**

TBD

The public can also submit feedback via email at [NJRGGI@dep.nj.gov](mailto:NJRGGI@dep.nj.gov). All public feedback will be considered in the development of the 2020 RGGI Strategic Funding Plan. The Plan will be released no later than 30 days after the certification of the results of New Jersey's first auction. The Plan will identify the initiatives each state agency will fund over the next three years, from 2020-2022. New Jersey anticipates investing millions of dollars in RGGI auction proceeds to reduce greenhouse gas emissions, support disproportionately impacted communities, improve air quality and provide a multitude of other environmental, economic and social benefits to residents across the State.

## Introduction

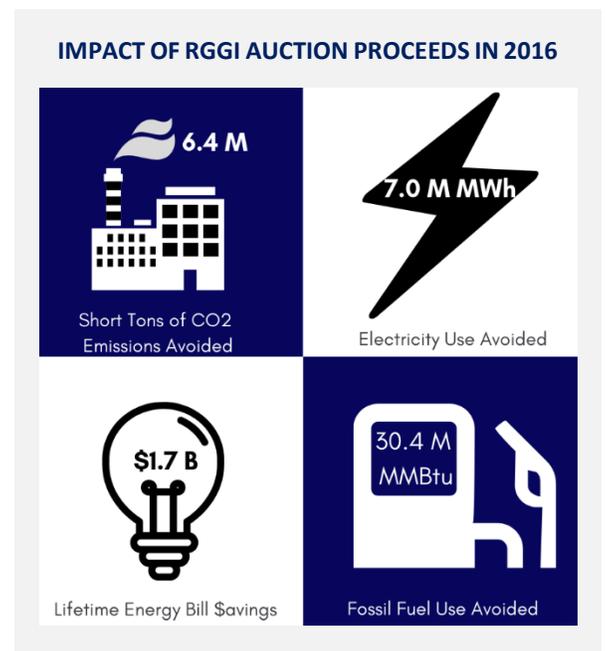
On June 17<sup>th</sup>, 2019, the New Jersey Department of Environmental Protection (NJDEP) adopted rules to participate in the Regional Greenhouse Gas Initiative (RGGI), starting in 2020. New Jersey's participation in RGGI will provide the State with auction proceeds to invest in programs and projects designed to help meet the State's climate, air quality and equity goals. By law, three state agencies (NJDEP, the New Jersey Economic Development Authority (NJEDA), and the New Jersey Board of Public Utilities (NJBP)) are designated to distribute RGGI proceeds. The NJDEP's Global Warming Solutions Fund rule requires these agencies to collectively develop a Strategic Funding Plan (hereafter referred to as the Plan) to guide RGGI investments. **The purpose of this scoping document is to provide stakeholders with a common understanding of the legal and regulatory framework surrounding the distribution of the RGGI auction proceeds to facilitate meaningful public input into agency decision-making early in the process.** This scoping document identifies the specific legal and regulatory requirements underpinning the development of the Plan; funding priorities for the first Plan; examples of potential funding initiatives; and details about upcoming stakeholder engagement events. Note that the examples provided under each initiative are for illustrative purposes. The agencies welcome feedback from the public on the initiatives described below and suggestions for other initiative ideas. A series of public workshops will be held to collect public input. Visit [www.nj.gov/RGGI/](http://www.nj.gov/RGGI/) to register for the public meetings. The public can also submit feedback via email at [NJRGGI@dep.nj.gov](mailto:NJRGGI@dep.nj.gov).

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

The Regional Greenhouse Gas Initiative (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). Nine states currently participate in RGGI, with New Jersey slated to enter the first auction of 2020. Collectively, the RGGI states establish an annual regional limit (cap) on CO<sub>2</sub> emissions from their combined electric power sector.

In New Jersey, 102 electric generating units at 36 powerplants will participate in RGGI. In June of 2019, the NJDEP released a map of the existing RGGI-eligible electric generating units in New Jersey, which provides additional details about the facilities.<sup>3</sup> New Jersey's CO<sub>2</sub> budget for 2020 is 18-million tons of CO<sub>2</sub>. New Jersey's auction proceeds will be determined by the auction clearing price each quarter. If the current clearing price holds constant, New Jersey's best estimate for auction proceeds collected in 2020 is \$80 million. 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 2016*<sup>4</sup> the lifetime impact of RGGI investments made in 2016, included:

- \$1.7 billion in lifetime energy bill savings
- 7.0 million MWh of electricity use avoided
- 30.4 million MMBtu of fossil fuel use avoided
- 6.4 million short tons of CO<sub>2</sub> emissions avoided

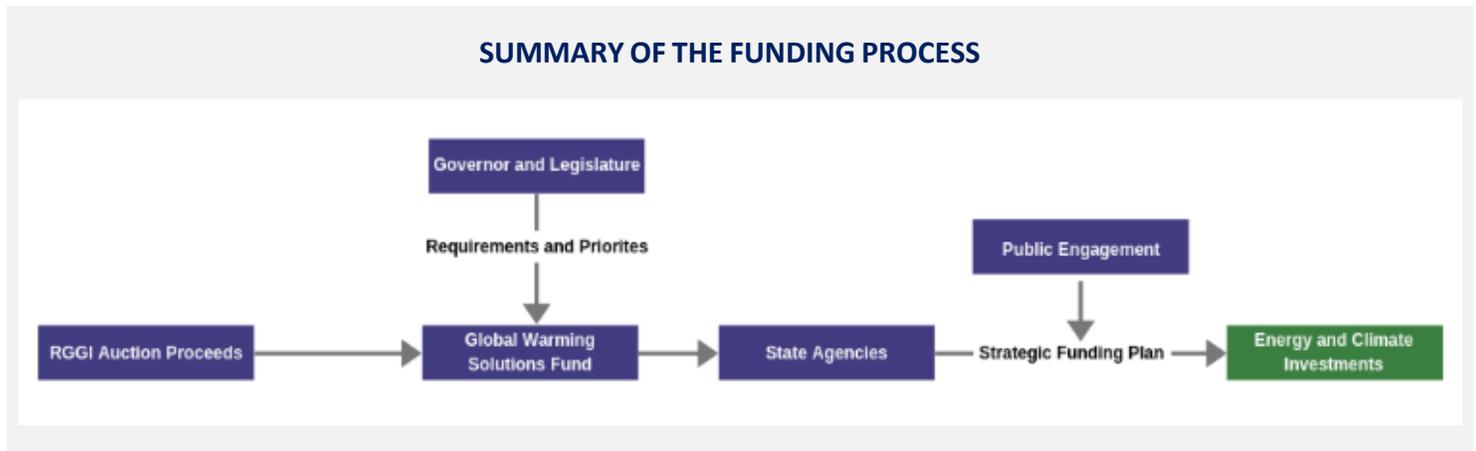


<sup>3</sup> Visit <https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=601fb450bdd14d6790768c811419daf4> to explore the New Jersey RGGI Electric Generating Units map.

<sup>4</sup>RGGI, Inc. (2018). *The Investment of RGGI Proceeds in 2016*. Retrieved from RGGI, Inc. Website: <https://www.rggi.org/investments/proceeds-investments>

## Global Warming Solutions Fund: Legal and Regulatory Framework

In 2008, the Legislature passed P.L. 2008, c. 340, commonly referred to as the Global Warming Solutions Fund Act, which enabled the state to participate in a CO<sub>2</sub> emission trading program and established 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. The Fund is a special, non-lapsing fund credited with moneys received from greenhouse gas emissions allowance trading programs. State agencies receiving moneys from the Fund must abide by the requirements in the Global Warming Solutions Fund Act and the NJDEP's Global Warming Solutions Fund rule. The Global Warming Solutions Fund rule incorporates the key elements of the Global Warming Solutions Fund Act along with directives from Governor Murphy's Executive Order No. 7. It also mandates the creation of the Plan to collaboratively guide energy and climate investments.



### Strategic Funding Plan

To better coordinate the use of the Global Warming Solutions Fund, the three state agencies (NJEDA, NJBPU and NJDEP) receiving moneys must work collaboratively to develop a Strategic Funding Plan. The objective of the Plan is to align investments across the agencies to best meet New Jersey's clean energy and greenhouse gas reduction goals. The Plan will not only allow the agencies to address common goals in the RGGI proceed distribution but will help align spending of the Fund with other state strategic efforts (e.g., the State Economic Development Plan, the Energy Master Plan, Partnership to Plug-in Memorandum of Understanding).

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

### Initiative Selection, Priority Ranking System and Measurable Benefits

Each state agency that receives an allocation from the Fund must sponsor one or more of the initiatives in the Plan. The NJDEP's rule defines initiatives as "a funding strategy predicted to advance one or more of the objectives<sup>5</sup> 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

<sup>5</sup> See Appendix A: Guidelines for the Objectives

the Global Warming Solutions Fund Rule. For example, as outlined in subsequent sections, an initiative could be “Clean Transportation.”

### 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.

The NJDEP’s Global Warming Solutions Fund Rule identifies six objectives – five culled from the Global Warming Solutions Fund Act and one from Governor Murphy’s Executive Order No. 7 – against which initiatives must be ranked by the state agencies. 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.<sup>6</sup> For example, if the agencies deem objective 6 as critical, any spending associated with that initiative must be predicted to provide measurable and verifiable benefits towards that objective. If, however, the agencies determine that objective 6 is only beneficial, spending could be responsive to that objective, but doesn’t need to be. Every objective must be ranked as critical to at least one initiative in the Plan, but an individual objective may be ranked as critical to more than one initiative. Appendix A outlines the state agencies current guidelines for the objectives, providing insight into how the agencies will interpret the language of the objectives when making their ranking determinations.

Agencies have flexibility in the methods used to measure benefits that will be reported out in subsequent Strategic Funding Plans. However as per the statutory requirement, methods used must 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. 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.

Finally, the 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, resilience planning and management, input from public meetings, state plans and action plans.

### Program Areas, Funding Allocations and Program Requirements

The state agencies receiving moneys from the Global Warming Solutions Fund have legislatively-mandated funding allocations and programmatic areas of focus. Funding is allocated by percentage to each agency and those agencies are required to spend funds within specific programs areas. These agency “funding lanes” set clear boundaries about each

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<sup>6</sup> See Appendix A for further guidance.

agency’s target funding recipients and what 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%
PROGRAM REQUIREMENTS	<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> </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 will be allocated to NJEDA, and must be used to support one or more of the following: end use energy efficiency programs; 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 will be allocated to NJBPU and must be used to reduce electricity demand or reduce electricity costs. NJBPU’s funding should focus on urban areas, including efforts to address the heat island effect and reduce impacts on ratepayers. As further mandated by statute, the eligible recipients of NJBPU’s funding are limited to the low- and moderate-income residential sector.

## Department of Environmental Protection

Twenty percent of the Fund will be allocated to NJDEP and then 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*

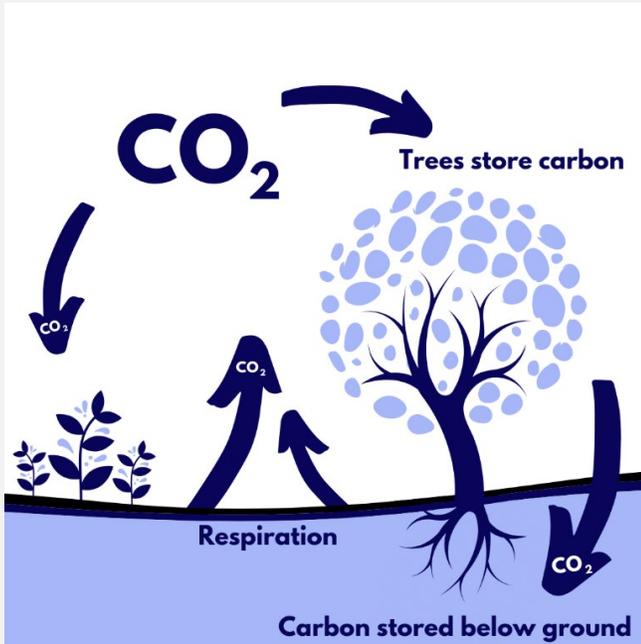
The NJDEP’s remaining 10 percent of the allocation from the Fund must be used to oversee efforts to enhance the stewardship and restoration of the state’s forests and tidal marshes<sup>7</sup>, which provide important opportunities to sequester or reduce greenhouse gases. The percentage of funding allocated to forests versus tidal marshes is not defined in either the Global Warming Solutions Fund Act or NJDEP’s corresponding rule but will be determined in each Plan.

The scope of use for funding allocated for the restoration of forests is further limited by the Forest Stewardship Act, P.L. 2009, Chapter 256. Any RGGI auction proceeds designated by the Plan for forestry-based carbon sequestration would be transferred from the Fund to the Forest Stewardship Incentive Fund. Once in the Forest Stewardship Incentive Fund, those funds would be governed by the guidelines established by the Forest Stewardship Act (i.e., dedicated to working with private property owners to protect and enhance their forest land and to provide for the stewardship and management of state forests). Individual grants can be awarded to local government units, non-profits and private forest land owners to assist in the cost of developing and implementing approved forest stewardship plans.

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<sup>7</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.

## UNDERSTANDING CARBON SEQUESTRATION



*Terrestrial carbon sequestration* refers to the process of capturing carbon dioxide 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).

## Funding Priorities

NJDEP, NJBPU, and NJEDA determined that the focus of this initial three-year Plan should further two overarching priorities: (1) proving meaningful benefits to communities most affected by pollution and climate change; and (2) catalyzing the electrification of the various modes of transportation in the State.

### 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 considering 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.

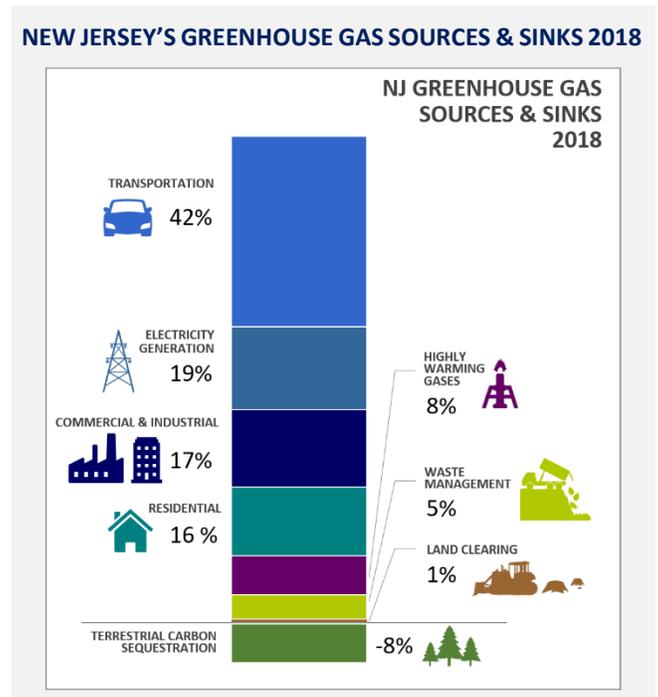
Governor Murphy's Executive Order No. 23 further directs the NJDEP to develop guidance about how all state agencies should incorporate environmental justice considerations into their actions, which would include the disproportionately impacted communities highlighted in EO 7. Environmental justice is 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. The Executive Order No. 23 guidance is under development, but once the guidance is finalized it will be used to make funding determinations. For more information on the Executive Order No. 23 Guidance Development, visit [www.nj.gov/dep/ej/eo23/index.html](http://www.nj.gov/dep/ej/eo23/index.html).

### Electrification of Transportation

Greenhouse gas emissions from transportation have increased nationwide by about 17 percent since 1990 and will continue to rise unless there is substantial reduction in the use of fossil fuels. According to the NJDEP's *2018 Statewide Greenhouse Gas Emissions Inventory*, the transportation sector remains the State's largest source of greenhouse gas emissions, emitting approximately 42 percent of the State's total greenhouse gas emissions. 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 Draft Energy Master Plan focuses on transportation for the first time, making its number one strategy to "reduce energy consumption and emissions from the transportation sector."

In addition to the Draft Energy Master Plan's strong position on transportation sector electrification, Governor Murphy has taken several key steps in the first two years of his Administration to emphasize the critical need for a smooth transition to a low carbon transportation future.

- 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.



Source: New Department of Environmental Protection. 2018 Greenhouse Gas Emissions Inventory (preliminary results).

- On December 18, 2018, New Jersey joined nine other states and the District of Columbia in committing to develop a low carbon transportation policy proposal to cap and reduce emissions from the combustion of transportation fuels by the end of 2019.
- On June 3, 2019, Governor Murphy announced the New Jersey Partnership to Plug-in, a first-of-its-kind, statewide partnership to build out the necessary infrastructure to support electrification of the transportation sector in New Jersey. The Partnership to Plug-in aligns state agency roles through a Memorandum of Understanding (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 US Climate Alliance to work together to support a strong national clean car standard.

Given the contribution of transportation to the State's total greenhouse gas emissions, it's critical that New Jersey invest, to the extent possible, its RGGI proceeds in initiatives focused on reducing those emissions. This is particularly critical in disproportionately impacted communities, which are often located in high-traffic areas and surrounded by commerce distribution centers and routes. Electrification of the transportation sources in these areas will also have the benefit of reducing local air pollution emissions in these communities.

## Example Initiatives

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 and 23, and public feedback collected during the RGGI rule adoption period and the upcoming public workshops. 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: Clean Transportation

Initiative One seeks to accelerate transportation electrification in the State, focusing on programs and projects that will have a beneficial impact on communities disproportionately impacted by the effects of environmental degradation and climate change. These sources include not only modes for transporting people, such as taxis, jitneys and buses, but also other vehicles that regularly operate in or around disproportionately impacted communities or drive through these neighborhoods (e.g., garbage, delivery and drayage trucks). As noted above, the transportation sector is the single largest contributor to statewide greenhouse gas emissions. Transitioning the fuel source of this sector from gasoline and diesel to electricity is necessary to reduce greenhouse gas emissions and will provide co-benefits by reducing criteria air pollutants and air toxics. New Jersey is currently ranked as 16<sup>th</sup> in the nation in terms of zero-emission vehicles sales per capita<sup>8</sup> and by the end of June 2019 there were 26,840 plug-in electric vehicles registered in the state. This initiative focuses investments to provide electric modes of transportation to residents and electrification of other transportation sources that travel through disproportionately impacted communities.

Both the NJDEP and NJEDA could fund programs and projects under this initiative, with NJDEP providing grant support to local governments, and NJEDA providing grants, loans, and other forms of financial enhancements in support of commercial, industrial and institutional establishments.

NJDEP funding could be dedicated to projects and programs such as:

- Local government-operated shuttle buses, school buses, garbage trucks, and fleet vehicles;
- Local government-sponsored ride sharing;
- Locally sponsored electric vehicle Ride and Drive events; and,
- Centralized electric vehicle charging hubs in towns to support EV owners living in multi-unit dwellings as well as ride sharing.

NJEDA could focus its funding on programs and projects that support the deployment of electric medium and medium-heavy duty vehicles in and around disproportionately impacted communities, such as:

- Grants to private jitney companies operating in New Jersey's urban corridor;
- Grant/loan combinations to support deployment by private commercial companies of electric "last-mile" delivery vehicles;
- Funding the deployment by port operators of electric cargo handling equipment (e.g., straddle carriers, gantry cranes) in the Ports of Newark and Elizabeth; and,

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<sup>8</sup> Alliance of Automobile Manufacturers. "Advanced Technology Vehicle Sales Dashboard." August 2019. <https://autoalliance.org/energy-environment/advanced-technology-vehicle-sales-dashboard/>.

- Funding for establishments that regularly use electric medium and medium/heavy duty trucks (e.g., warehouses) to install DC Fast Charging (DCFC) capacity.

*Priority Ranking*

The agencies have ranked four objectives as critical for Initiative One:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon;
- 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 of 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 agencies after the Plan is finalized.

*Agency Sponsorship*

The NJDEP could dedicate all or a portion of its 10 percent of the Fund allocated to local governments pursuant to this initiative. The NJEDA could dedicate all or a portion of its 60 percent of the Fund allocated to industrial, commercial and institutions to this initiative.

INITIATIVE ONE CLEAN TRANSPORTATION: PRIORITY RANKING	
Objectives	Initiative 1 Clean Transportation
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.	C

## Initiative Two: New Jersey Green Bank

Initiative Two seeks to increase the pace of clean energy investment through the creation of the New Jersey Green Bank. RGGI funding would be used by the NJEDA to capitalize a Green Bank to provide direct loans, or financial enhancements to support private lending. Lending would focus on the deployment of existing, tested technologies. Projects and programs funded by the Bank could include clean/renewable energy generation, energy storage, energy efficiency and power management. The Bank would amplify the impact of state funds through co-financing arrangements with private lenders, accelerating the pace at which these lenders embrace new project types, business models and transaction structures. Funding would be made available to New Jersey-based commercial and industrial companies, as well as institutions (e.g., non-profits). According to the NJDEP’s 2018 Statewide Greenhouse Gas Emissions Inventory, the commercial and industrial sectors combined account for 17 percent of New Jersey’s greenhouse gas emissions. Emissions from the industrial sector have sharply declined since 1990, decreasing from 19.8 MMT CO2e to 7.2 MMT CO2e in 2018. However, emissions from the commercial sector have held steady at 10.7 MMT CO2e in 1990 to 9.4 MMT CO2e in 2018. Increasing efficiency at these facilities is needed to achieve New Jersey’s greenhouse gas reduction goals.

Under this initiative moneys from the Global Warming Solutions Fund could be dedicated to:

- Provide loan guarantees to private lenders who extend credit to fund energy efficiency and power management measures by small to medium-sized businesses;
- Take funding positions in a capital stack, financing clean energy and/or energy storage project(s);
- Purchase, securitize and resell private loans, funding purchases of electric trucks on longer-than-customary truck financing terms; and,
- Provide administrative support to parties participating in Commercial Property Assessed Clean Energy (C-PACE) programs.

Over time, the Green Bank could also assist the State in meeting fiscal/budgetary objectives, enabling government grant support for clean energy initiatives to be replaced by government loans and, ultimately commercial loans.

### Priority Ranking

Agencies ranked one objective as critical for Initiative Two:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon.

This objective 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 agencies after the Plan is finalized.

### Agency Sponsorship

NJEDA could dedicate all or a portion of its 60 percent of the Fund allocated to the Commercial, Industrial and Institutional sectors.

INITIATIVE TWO NEW JERSEY GREEN BANK PRIORITY RANKING	
<b>Objectives</b>	<b>Initiative 2</b> New Jersey Green Bank
1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;	<b>C</b>
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 Three: Community Clean Energy Grid

Initiative Three seeks to reduce electricity consumption by low and moderate income (LMI) households through the development and implementation of a Community Clean Energy Microgrid (CCEM) program. The CCEM could be developed and implemented as a coordinated and comprehensive energy program for all LMI single family and multi-family building customers in a holistic neighborhood approach.<sup>9</sup>

The CCEM program would be designed to replace a majority of the grid-supplied electricity with clean renewable electricity that is constructed, generated, and operated directly within communities disproportionately impacted by the effects of environmental degradation and climate change. The CCEM would include solar as a community solar facility and other clean distributive energy resources (DER) such as batteries that would provide a majority of the electricity used by low income customers. The LMI customers of the CCEM project would have their electric bills offset by the clean renewable electricity produced by the CCEM. The addition of DER battery storage could allow the CCEM to operate independent of the grid during emergencies when the grid is down, improving energy resiliency in the community. In addition, the CCEM could also include Level 2 electric vehicle public charging stations, which could operate in conjunction with the CCEM battery storage to reduce peak electricity usage. The CCEM could provide financial assistance for the procurement of shared plug-in energy vehicles for neighborhood use.

The CCEM would include deep energy efficiency upgrades for each LMI customer and LMI multifamily housing within a neighborhood. A part of these energy efficiency upgrades could, where appropriate, focus on the replacement of inefficient heating and cooling systems with highly efficient cold weather heat pumps, advancing the Energy Master Plan goal to begin the transition to building electrification and reducing customers' bills.

The CCEM program would be directly available to all low-income families within the neighborhood community, with the opportunity to opt-out, and could also be offered to moderate income households and small businesses within the neighborhood community. Funding for the CCEM could be provided to local governments including public housing authorities or non-governmental agencies that provide energy efficiency and other community services and Community Action Agencies that implement Community Action Programs.<sup>10</sup> The program could include a workforce development component to design, build and operate the CCEM project, including an apprenticeship training program focused on energy management of the CCEM within the local distribution system. The initial trained workforce could also develop subsequent CCEM projects.

The CCEM would reduce electricity demand for low- and moderate-income customers by providing deep energy efficiency upgrades and by developing clean and renewable electricity locally within the neighborhood communities. The project would reduce the cost of electricity to the CCEM customers and to a lesser degree to all electric customers by reducing the summer and winter peaks for electricity. Additionally, this initiative could generate revenue in the PJM Demand Response energy market.

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<sup>9</sup> A single-family building is defined as including up to 4-unit buildings and multi-family buildings is defined as including both low, medium and high-rise buildings that could be master metered or individually metered.

<sup>10</sup> Community Action Agencies are non-profit entities funded largely by federal and other government grants to promote self-sufficiency in low-income communities. Community Action Agencies implement Community Action Programs, which can include such programs as the Community Services Block Grant, Head Start, the Weatherization Assistance Program (WAP), and Low-Income Home Energy Assistance Program (LIHEAP).

### Priority Ranking

Agencies ranked six objectives as critical for Initiative Three:

- 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;
- 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 agencies after the Plan is finalized.

### Agency Sponsorship

The NJBPU could sponsor this initiative, utilizing its 20 percent of the Fund allocated to the low income and moderate-income residential sector. Funding could be coordinated with existing NJBPU Clean Energy programs, including Comfort Partners Direct Install, Smartstart, DER Energy Storage incentives, electric vehicle rebates, Community Solar and the Multifamily Program and the New Jersey Department of Community Affairs (NJDCA) Weatherization Assistance Programs. In addition, funding could be coordinated with the NJBPU’s energy assistance Universal Service Fund (USF) program and the NJDCA Low Income Heating Energy Assistance Program (LIHEAP).

INITIATIVE THREE COMMUNITY CLEAN ENERGY MICROGRID PRIORITY RANKING	
Objectives	Initiative 3 Community Clean Energy Microgrid
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;	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

## Initiative Four: Net-Zero Energy Solutions for Waste Management

Initiative Four seeks to reduce emissions from waste disposal. Funding would be provided to facilities for net-zero energy use through the implementation of proven technologies and best practices in the areas of energy conservation, demand reduction and enhanced production. Waste management is the largest source of non-energy emissions in the State, accounting for 5.3 MMT CO<sub>2</sub>e of the total 97 MMT CO<sub>2</sub>e in 2018. About 65-70 percent of the emissions are from methane, which, according to the United Nations Framework Convention on Climate Change, has a global warming potential approximately 28 times greater than CO<sub>2</sub> over a 100-year time period.<sup>11</sup> Additionally, co-benefits would be achieved by avoidance of oxides of nitrogen (NO<sub>x</sub>) and CO<sub>2</sub> emissions from flaring.

Under this initiative moneys from the Global Warming Solutions Fund could be dedicated to projects and programs to:

- Maximize the use of source separated organic waste for energy production and encourage the use of biogas for electricity production or natural gas pipeline injections; and,
- Encourage local municipalities to partner with waste facilities to collect organic waste from larger generators for use in energy production.

### Priority Ranking

Agencies ranked five objectives as critical for Initiative Four:

- 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 of 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 agencies.

### Agency Sponsorship

NJDEP could dedicate all or a portion of its 10 percent of the Fund for local governments to this initiative.

INITIATIVE FOUR NET-ZERO ENERGY SOLUTIONS FOR WASTE MANAGEMENT PRIORITY RANKING	
<b>Objectives</b>	<b>Initiative 4</b> Net-Zero Energy Solutions for Waste Management
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

<sup>11</sup> 5<sup>th</sup> IPCC report, [https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29\\_1.pdf](https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf)

## Initiative Five: Beneficial Role of New Jersey Forests in the Carbon Cycle

Initiative Five seeks to promote, protect and maintain the beneficial role of New Jersey forests in the carbon cycle. According to the NJDEP's 2018 Greenhouse Gas Inventory "it is estimated that the State's land sector (forests and associated land cover) sequestered the equivalent of 8.1 million metric tons CO<sub>2</sub>", approximately 8 percent of the State's total greenhouse gas emissions. The state's natural features sequester more carbon than is generated by the waste sector. New Jersey's forests alone sequester 4 MMT of carbon each year. To meet the State's 2050 goal of 80 percent reduction in greenhouse gases below 2006 levels, natural features that sequester carbon must be promoted, protected, and maintained. Forests play a critical role in the carbon cycle as existing stocks of sequestered carbon and by continually removing and storing additional carbon from the atmosphere. Additionally, urban and community forests contribute to demand side energy reductions, avoided emissions, and are among the top five in carbon gain potential for natural climate solutions in New Jersey.<sup>12</sup>

Under this initiative, moneys from the Global Warming Solutions Fund could be dedicated to projects and programs that meet the mandates outlined under the Forest Stewardship Act at P.L. 2009, Chapter 256, C.13:1L-33 and:

- Provide technical and financial assistance to local governments to implement urban and community forestry projects; including but not limited to increasing canopy coverage, reducing urban heat island effect, and strategic tree planting to reduce heating and cooling costs with a focus on projects in communities which have been disproportionately impacted by the effects of environmental degradation and climate change;
- Identify areas where natural carbon sequestration processes are working well and implement a strategy to maintain and enhance those benefits long term;
- Designate areas appropriate for forest restoration/reforestation through natural regeneration and the planting of trees;
- Steward and manage forests through ecological- and conservation-based forest management to promote, protect, and maintain the beneficial role of New Jersey's forests in the carbon cycle;
- Evaluate and foster forest conditions such as structure, density, fuel loads, and species composition to defend the existing forest carbon pool against catastrophic carbon release caused by forest pests, diseases, and wildfire;
- Keep forestland as forest to protect carbon pools from losses due to land conversion; and,
- Enhance the Forest Stewardship Program through grants and technical assistance providing for increased private woodland owners participation.

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<sup>12</sup> U.S. Climate Alliance. Natural and Working Lands Learning Lab, New Jersey Team Summary of Findings and Recommendations. (July 2018)

*Priority Ranking*

Agencies have ranked three objectives as critical for Initiative Five:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon;
- Be directly responsive to the recommendations submitted by the NJDEP 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 its 10 percent of the Fund allocated to Forest and Tidal Marshes, to this initiative. In this example, the Plan would establish the funding split between forestry and marshland restoration programs. Any percentage allocated to the forest initiative would be governed by the mandates outlined under the Forest Stewardship Act at P.L. 2009, Chapter 256, C.13:1L-33 and the projects and programs will need to report on how they satisfied the critical objectives for this initiative in the next Strategic Funding Plan.

INITIATIVE 5 BENEFICIAL ROLE OF NEW JERSEY FORESTS IN THE CARBON CYCLE PRIORITY RANKING	
<b>Objectives</b>	<b>Initiative 5</b> Beneficial Role of New Jersey Forests in the Carbon Cycle
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.	

## Initiative Six: Sequester “Blue Carbon” in Coastal Habitats

Initiative Six seeks to promote, protect and maintain the beneficial role of New Jersey tidal marshes in the carbon cycle. Blue carbon is the stored carbon in 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. The carbon is stored in the soil and plants of these coastal habitats. Although salt marshes cover only a small percentage of the United States, it has been estimated that they account for 21 percent of the carbon sequestered by ecosystems.<sup>13</sup> New Jersey’s tidal marshes sequester over 2.4 MMT of carbon each year. However, as these ecosystems are degraded, their carbon sink capacity is diminished and as these ecosystems are lost the stored carbon is released, resulting in emissions of CO<sub>2</sub> that contribute to climate change. To meet the state’s 2050 goal of 80 percent reduction in greenhouse gases below 2006 levels, natural features that sequester carbon must be promoted, protected, and maintained. Tidal marshes and sea grass play a critical role in the carbon cycle as existing stocks of sequestered carbon and by continually removing and storing additional carbon from the atmosphere. According to the NJDEP’s *2018 Statewide Greenhouse Gas Emissions Inventory*, the state’s natural features sequester approximately 8 percent of the State’s total greenhouse gas emissions. As mentioned in initiative six, above, the state’s natural features sequester more carbon than is generated by the waste sector.

In addition to sequestering carbon, tidal wetlands buffer coastal communities from storms, filter water and provide habitat for recreationally and commercially important fishes and birds. Thus, tidal wetlands provide many important co-benefits.

Under this initiative moneys from the Global Warming Solutions Fund could be dedicated to projects and programs that:

- Enhance and restore tidal salt marshes;
- Protect and rebuild eroding salt marsh edge with living shorelines;
- Remove tidal restrictions to increase salt water flow into a tidal wetland;
- Preserve upland areas that are expected to become salt marshes as sea levels rise;
- Restore and protect seagrass habitat; and,
- Re-work closed solid waste landfills on tidal salt marshes to create new public access and water front parks with restored tidal salt marsh systems as a component.

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<sup>13</sup> Nellemann, Christian, and Emily Corcoran, eds. *Blue carbon: the role of healthy oceans in binding carbon: a rapid response assessment*. UNEP/Earthprint, 2009.

*Priority Ranking*

Agencies have ranked three objectives as critical for Initiative Six:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon;
- Be directly responsive to the recommendations submitted by the NJDEP 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 all or a portion of its 10 percent of the Fund allocated to Forest and Tidal Marshes to this initiative. In this example, the Plan would establish the funding split between forestry and marshland restoration programs.

<b>INITIATIVE SIX</b> <b>SEQUESTER “CARBON BLUE” IN COASTAL HABITATS</b> <b>PRIORITY RANKING</b>	
<b>Objectives</b>  1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;	<b>Initiative 6</b> Sequester “Blue Carbon” in Coastal Habitats <span style="background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">C</span>
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;	<span style="background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">C</span>
5. Provide co-benefits; and	<span style="background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">C</span>
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 Seven: Strengthen Clean Tech Innovation

Under this initiative, NJEDA could provide funding and in-kind assistance to strengthen clean tech innovation in the state through support for the innovation ecosystem (e.g., incubators, proof of concept centers, research databases, etc.), the funding of individual early-stage clean tech companies and entrepreneurs, and support for basic research. System-level support could build on the state's many existing strengths in the field and encourage stronger cooperation among ecosystem participants. Support for individual businesses could take the form of grants, loans, equity investments, or in-kind resources such as free access to research and development facilities. This initiative could align closely with Governor Murphy's innovation agenda and the state's Energy Master Plan. It could also capitalize on the foundation of excellence in clean tech innovation that already exists in our research universities and major corporate research and development centers, and at the Rutgers EcoComplex in Bordentown.

Areas of focus could include technology innovation in renewable energy generation, including offshore wind, energy storage, energy efficiency and carbon capture and sequestration. The initiative could also align with the RGGI clean transportation priority by funding companies engaged in the development of innovative, mobility use-case, energy storage and electric drive train technologies.

Under this initiative moneys from the Global Warming Solutions Fund could be dedicated to:

- Matching grants, loans or equity capital to clean tech companies in New Jersey that obtain funding from outside investors;
- Business accelerator program to support company and technology scale-up;
- Creation of a proof of concept and prototyping center or incubator;
- Provide research and development grants to universities and corporations to support development or purchase critical testing equipment; and,
- Grant funding to help support pilot projects utilizing new technologies that have not yet reached the stage of full market acceptance and commercialization.

*Priority Ranking*

Agencies have ranked three objectives as critical for Initiative Seven:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon;
- Be directly responsive to the recommendations submitted by the NJDEP 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 Economic Development Authority could dedicate all or a portion of its 60% of the Fund allocated to the Commercial, Industrial and Institutional sectors.

INITIATIVE SEVEN STRENGTHEN CLEAN TECH INNOVATION PRIORITY RANKING	
<b>Objectives</b>	<b>Initiative 7</b> Strengthen Clean Tech Innovation
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.	

## Priority Ranking Summary

As discussed above in “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 seven example initiatives in this scoping document have met this requirement, collectively ranking all six objectives as critical.

**PRIORITY RANKING SUMMARY TABLE**

Objectives	Initiative 1 Clean Transportation	Initiative 2 New Jersey Green Bank	Initiative 3 Community Clean Energy Microgrid	Initiative 4 Net-Zero Energy Solutions for Waste Management	Initiative 5 Beneficial Role of New Jersey Forests in the Carbon Cycle	Initiative 6 Sequester “Blue Carbon” in Coastal Habitats	Initiative 7 Strengthen Clean Tech Innovation
1. A net reduction in greenhouse gas emissions or a net sequestration of carbon;	C C	C	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	C	C
5. Provide co-benefits; and	C C		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	C			

Key

NJBPU	NJEDA	NJDEP Local Govt.	NJDEP Marsh/Forest
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## Public Engagement

The Global Warming Solutions Fund Rule requires the NJEDA, NJBPU and NJDEP to host at least one joint public meeting and each agency to host a least one agency-specific public meeting. To increase the diversity of input from the stakeholders, the agencies have decided to conduct all four public meetings jointly – with each agency hosting one of those meetings. These meetings will occur at different locations around the state to enable robust discourse with the public. The public meetings will be in run as workshops with round table discussions to facilitate information exchange. In addition, the agencies will conclude the public input period with a webinar. The 2-hour webinar will follow a slightly different format, by summarizing feedback gathered at the four in-person events, along with collecting additional public input. For more information about the public workshops visit: <http://www.nj.gov/RGGI/>

### Public Workshop Schedule

#### PUBLIC WORKSHOP SCHEDULE

##### **South Workshop, hosted by NJDEP**

**November 7, 2019**

6:00 – 9:00pm

Atlantic Cape Community College

Rutgers Life Long Learning Center, Multipurpose Room

##### **Coastal Workshop, hosted by the NJDEP**

**TBD**

##### **Webinar**

**TBD**

##### **North Workshop, hosted by NJBPU**

**November 18, 2019**

6:00 – 9:00pm

New Jersey Institute of Technology

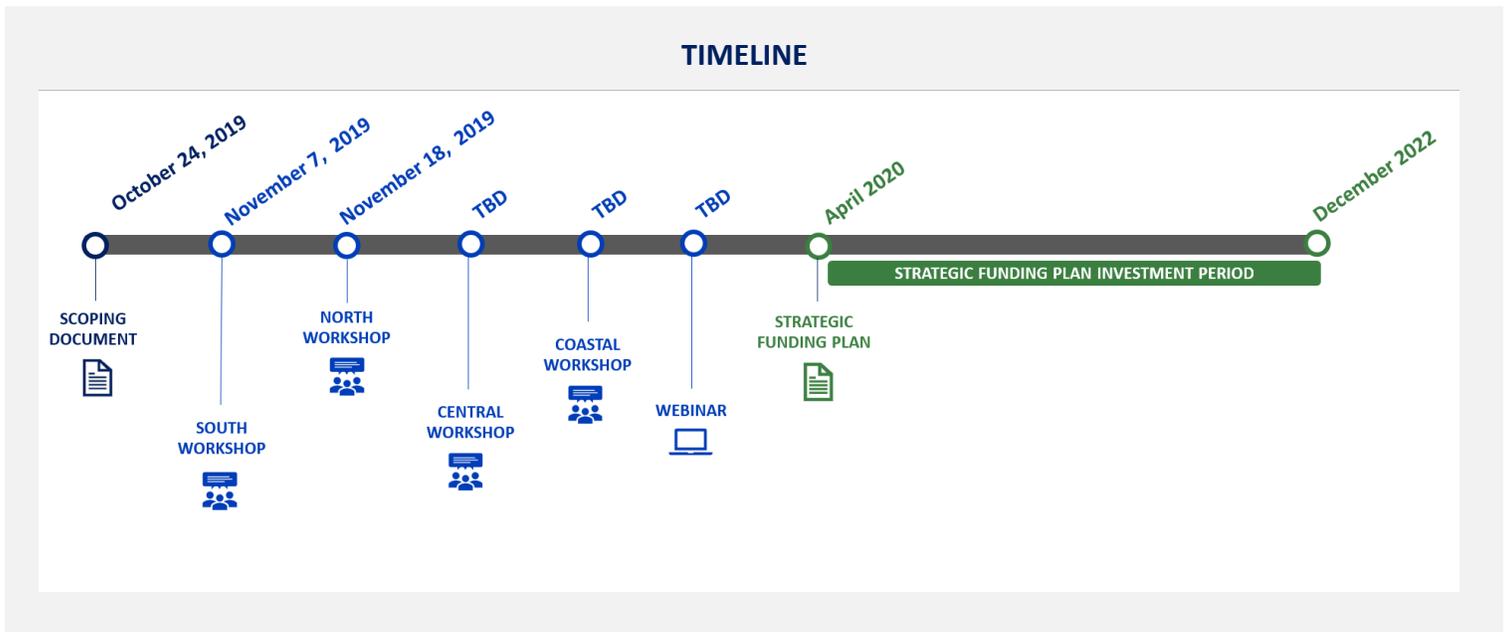
Campus Center, Ballroom A

##### **Central Workshop, hosted by NJEDA**

**TBD**

## Timeline

The timeline below depicts the major milestones in the development of the Plan and the investment period it will cover. As previously noted, the Plan will govern how the state uses the RGGI auction proceeds over a three-year time period. Subsequently, a new funding plan will be developed for the next investment period.



## Appendix A: Guidelines for the Objectives

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>14</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 percent 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.

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<sup>14</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).

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:

- 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 Recommendation Report](#) (December 2009).

**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 to develop guidance on Environmental Justice issues for all Executive branch departments and agencies to consider and follow when implementing their rules. The [E.O 23 Draft Guidance Document](#) was released in late 2018 for comment. That draft guidance looks to a number of criteria, such as the significant presence of residents of low-income and minority status, as primary indicators of disproportionately-impacted communities. The draft guidance also listed a number of secondary indicators that might point to a community's disproportionate vulnerability to environmental or health stressors, such as elevated asthma rates; a high proportion of vulnerable populations such as infants, small children and the elderly; a high concentration of facilities that discharge pollutants to air or water; high concentration of sites that have been contaminated with hazardous substances; or widespread educational or English language limitations that present obstacles to the community's ability to be well-represented in government or private sector decision-making.

Once this guidance is final, it will be used to determine critical evaluations on this Objective for this funding plan. If an Initiative ranks this Objective as critical, projects and programs funded under that Initiative must be located in these communities or must directly benefit these communities.