

October 23<sup>rd</sup>, 2024

Regional Greenhouse Gas Initiative  
90 Church Street  
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New York, NY 10007

Submitted via email to [info@rggi.org](mailto:info@rggi.org)

RE: Comments to RGGI Third Program Review to September 2024 Materials

Dear RGGI Representatives,

Thank you for the opportunity to comment on and provide input to the recently released materials regarding the RGGI Third Program Review and RGGI program in general. TigerGenCo oversees two applicable RGGI facilities located in New Jersey: the Bayonne Energy Center and Red Oak Power. TigerGenCo committed to the progress of the energy transition and is in a late-stage battery energy storage development opportunity and other early-stage energy transition projects including studying the feasibility of hydrogen combustion. We submit these comments considering the dynamically changing power generation environment over the last 20 years and the extreme load growth driven by multi-sector electrification. We also submit these comments recognizing that policy approaches that served needs and economies 10 to 20 years ago may not be the most effective today. Such policies can become outdated, producing unintended negative consequences that outweigh their intended benefits.

### **Power Generation Emissions Reductions Success**

The RGGI states and the nation as a whole have significantly decreased emissions of CO<sub>2</sub> and other pollutants on both a mass and rate basis. According to data from the EPA's Clean Air Markets Program Division (CAMD) for national emissions from 2005 to 2023, the fossil-fueled power sector decreased mass emissions of sulfur dioxide (SO<sub>2</sub>) by over 93%, carbon dioxide (CO<sub>2</sub>) by over 38%, and nitrogen oxides (NO<sub>x</sub>) by over 82%. Co-pollutants like lead, particulate matter (PM<sub>2.5/10</sub>), carbon monoxide (CO), volatile organic compounds (VOCs), mercury (Hg), and hazardous air pollutants (HAPs) have seen similar decreases. Additionally, other greenhouse gases such as methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) have decreased. All while maintaining approximately the same net electricity output from the fossil fueled power generation sector. Several factors have contributed to these substantial emission decreases in the RGGI states:

- **Market-Based Approaches:** Programs like RGGI, the Acid Rain Program (ARP), and the Cross-State Air Pollution Rule (CSAPR) have played a role in driving improvements in power generation technologies, heat rate efficiency, and emissions rates.
- **Retirement of Obsolete Facilities:** Aging coal and oil boiler power generation facilities have been retired, replaced by new combustion turbine power generation facilities that are cleaner and more efficient.
- **Efficiency Improvements:** Existing combustion turbine power generation facilities have implemented efficiency improvement projects.
- **Imports from Non-RGGI States and Canada:** Imports have offset emissions derived from facilities in RGGI states, a phenomenon known as "leakage."

While emissions market-based approaches have contributed to these improvements, the primary drivers have been economic factors outside of regulatory emissions markets and the normal course of replacing and improving obsolete technologies through human ingenuity.

Attachment 1 provides the historical CO<sub>2</sub> emission rates for RGGI states, Non-RGGI states, Florida, and National fossil fueled power generation facilities reporting into EPA's ECMPS. Florida was chosen as an example of a Non-RGGI states in a "corner" of the country that was historically dependent on coal and No.6 oil as primary fuel sources. As seen, the Non-RGGI states, Florida and National average emission rates decreased at a greater rate over time, having a more dramatic negative slope as defined by their trendlines, as compared to the RGGI states. This implies that a similar or even greater decrease in emissions would have occurred in the RGGI states without the RGGI program.

### **Global Context and Unintended Consequences**

As stated above, regionally and nationally, the fossil fuel power generation sector has achieved notable success in minimizing environmental impact while providing cost-effective and reliable energy. This transition began in the late 1990s and early 2000s with the deployment of natural gas-fired combined cycle facilities. However, on a global scale, approximately 1,500 gigawatts (GW) of coal capacity have been commissioned between 2000 and 2023, according to the Global Energy Monitor's Global Coal Plant Tracker. This equates to about 1,500 new heavily polluting coal plants, assuming a nominal plant capacity of 1,000 megawatts (MW) per coal plant.

In 2023 alone, approximately 70 GW of global coal capacity was commissioned, which is roughly three times the capacity needs of either the state of New York or the entire ISO-New England market. The Northeast and Mid-Atlantic regions should not be forced into austerity measures caused by the RGGI program while coal facilities continue to be deployed at significant rates globally. Such measures will have diminishing returns domestically while global emissions continue to rise.

### **Alignment with National Goals**

In the absence of a unified national energy policy, the following points should be considered as guiding principles to lead us through a successful energy transition, taking into account fossil and renewable fuel availability and other regional characteristics:

- **Targeted Electrification:** Deploy residential, commercial, industrial, and transportation sector electrification where it is practical and makes economic and environmental sense.
- **Balanced Energy Mix:** Deploy clean and efficient combined cycle plants alongside wind, solar, and battery storage to maintain a reliable and resilient grid that meets the extreme demand growth of the coming decades, while replacing the aging coal/oil fired boiler and nuclear fleets.
- **Support for Reliability:** Deploy efficient simple cycle units to backstop the intermittency of wind and solar power, ensuring grid stability.
- **Investment in Innovation:** Invest in research and development involving current technological improvements and future-generation technologies that are either not yet invented or not yet commercially viable.

These policies will effectively result in net greenhouse gas emissions reductions, along with reductions in co-pollutants, by offsetting potential increases in power generation-related emissions due to increased electricity demand with decreases in emissions from various sectors switching their energy source from fossil fuel combustion to electricity.

Given the significant projected increase in electricity demand, forecasted to be as much as doubling over the next two decades, a mass-based cap on emissions that limits electricity generation is counterproductive and detrimental to national goals. Instead, a regional or state-specific emissions rate approach can be effective, provided that permitting reform is implemented to update regulatory requirements related to efficiency improvement projects

currently hindered by New Source Review (NSR)/Prevention of Significant Deterioration (PSD) “modification” provisions. These provisions are another set of antiquated regulatory requirements holding back innovation and the energy transition.

### **Comments to September 23 Materials**

Two primary comments on the materials released on September 23<sup>rd</sup> are:

- **Need for Transparency in Modeling:** RGGI should schedule a presentation, both web-based and in-person, to explain the various scenarios modeled, including the assumptions and variables used. This transparency is crucial for stakeholders to understand and evaluate the potential impacts of proposed changes.
- **Inclusion of Leakage in Analysis:** The emissions, generation, and fuel consumption from leakage must be included in the analysis. For example, according to the EIA's 2022 Electricity Profile, New Jersey generated approximately 65,000 gigawatt-hours (GWh) while total retail sales were approximately 74,000 GWh, equating to 9,000 GWh of imported electricity, approximately 12% of the state's needs. Therefore, modeling should include the emissions and fuel use associated with imported electricity. Imports supplied Washington D.C., Delaware, Maryland, and New York with approximately 98%, 54%, 40%, and 12% of each jurisdiction's electricity, respectively. The vast majority of this import supply came from non-RGGI states. Ignoring leakage skews the analysis and underestimates the true environmental impact.

### **Items to Consider During the Third Program Review**

During this Third Program Review, the following factors must be considered when proposing policy improvements to the RGGI program:

- **Extreme Electric Demand Growth:** Brought on by:
  - Multi-Sector Electrification: Specifically, the buildings and transportation sectors.
  - Data Centers: Rapid growth in data computing demand requiring substantial electricity.
  - Reshoring of Manufacturing and Industrial Operations: Increasing domestic production that adds to electricity demand.
- **Technology Limitations:** The regional and national emissions decrease successes over the last 20 years were due to the deployment of combined cycle facilities readily replacing coal and oil boiler facilities. Currently, there is no power generation technology that can be deployed that provides the same environmental benefit and minimized impact, with electric reliability and resiliency, on an economically feasible basis to displace combustion turbine combined cycle technology.
- **Leakage Effects:** The RGGI program has caused a significant amount of leakage. Specifically, less efficient and more polluting facilities in Pennsylvania are exporting power into D.C., Delaware, Maryland, New Jersey, and New York, while clean, efficient combined cycle facilities in those states are idled due to the additional cost of RGGI applied to power price bids. These jurisdictions are importing at rates from 10% to 90% of their needed power supply. This leakage circumvents RGGI's intended purpose of reducing emissions within the region.
- **Realistic Deployment Timelines:** The timeline to develop and deploy renewable power generation technologies is significantly longer and more costly than published politically driven targets and expectations suggest. Overestimating the speed and feasibility of renewable deployment can lead to reliability issues and unmet energy demands.
- **Economic Impact on Ratepayers:** The RGGI cost adds to the electricity bills of ratepayers in RGGI states. The RGGI cost adder can be up to 50% of the cost of wholesale electricity at current natural gas prices, imposing a significant financial burden on consumers.

- **Inefficiency of CO<sub>2</sub> Reduction Programs:** The effectiveness of CO<sub>2</sub> reduction programs achieved with RGGI proceeds is questionable. Funds may not be utilized in the most efficient manner to achieve meaningful emissions reductions.
- **Market Dynamics and Speculation:** The volume of allowances held and bidding behavior by non-compliance entities can inflate prices and control supply, leading to higher costs without corresponding environmental benefits.
- **Dependence on Unproven Technologies:** Policies and targets are often based on renewable or "future generation" technologies that have not been invented yet or have not been demonstrated on a wide-scale commercial basis. Relying on such technologies introduces significant uncertainty and risk.
- **Regulatory Burdens:** Ensure that states are not increasing the administrative and compliance burdens associated with the RGGI program by duplicating reporting requirements already provided through RGGI's COATS and the EPA's ECMPS processes.

We request a holistic review of the program and a report of findings focused on leakage, impacts to ratepayers, including commercial and industrial customers, and the auction process and participants' share of allowances. This analysis should be carried out by an independent third party overseen by stakeholders of the RGGI program. While simple analyses of the negative effects of the program have been discussed above, a rigorous review is warranted to identify issues, contributing factors, and root causes so that appropriate policies can be implemented. Example of a cursory analysis provided in attachment 2 regarding RGGI's effects on New Jersey using EIA's Electricity Profile data. As seen, New Jersey's retail electric rates increased while the state was participating in RGGI and has significant imports, primarily from less efficient and more polluting facilities in Non-RGGI states. New Jersey actually became a net exporter of electricity when it was not in RGGI fully utilizing its fleet of clean and efficient power generation facilities.

### **Recommendations for Program Improvement**

Considering the above factors, to efficiently implement the progress of the energy transition and minimize regional greenhouse gas emissions and co-pollutants while reducing the economic impact on electric ratepayers, the following recommendations are proposed:

#### **1. Terminate the RGGI Program After the 6th Control Period**

The preferred recommendation is that the RGGI states, in coordination with RGGI, terminate the program after the completion of the 6th control period. This would remove the counterproductive mass-based cap that limits electricity generation at a time when demand is significantly increasing due to electrification efforts. As seen in Attachment 1, the region has already achieved almost the lowest CO<sub>2</sub> emissions rate possible.

#### **2. Alternative Recommendations if Termination Is Not Pursued**

In lieu of terminating the program, the following adjustments are recommended:

- **Limit Non-Compliance Entity Participation:** Immediately incorporate a volume cap offered to non-compliance entities to =<10% of the auction volume. This will reduce speculative trading that inflates allowance prices and adversely impacts ratepayers.
- **Allocation of Allowances:** Provide allowances to applicable power generation entities on an allocation basis similar to existing EPA programs such as CSAPR. This approach can help manage costs and ensure that allowances are distributed based on actual emissions and needs.
- **Adjust the Cap Based on Demand:** Devise a cap based on actual state and regional economic activity and electric demand, along with a representative emissions factor.

This would align the cap with real-world conditions and avoid artificially constraining electricity supply.


- **Implement a Fixed CO<sub>2</sub> Emission Fee:** Replace the auction and cap system with a fixed fee for CO<sub>2</sub> emissions of approximately \$2–\$4 per ton to maintain some level of state greenhouse gas programs. This is similar to the funding approach for the Title V program and provides cost certainty.
- **Address Leakage Through Coordination:** Coordinate with the appropriate Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) to ensure that imported power bears the RGGI cost adder, minimizing the effects of leakage.

The primary goals of these recommendations are to:

- **Ensure Reliable Power Supply:** Allow for clean fossil fuel power generation to meet growing electrification demand so the region does not face an uncertain power supply and potential negative economic consequences.
- **Alleviate Economic Burden on Ratepayers:** Reduce the financial impact caused by RGGI on ratepayers, making energy more affordable for residential, commercial, and industrial consumers.
- **Encourage Economic Growth:** Provide certainty to manufacturing and industrial entities evaluating reshoring opportunities in the region, supporting economic development.
- **Facilitate an Efficient Energy Transition:** Adopt a more effective approach to foster the energy transition and minimize greenhouse gas emissions and co-pollutants regionally and economy-wide.

We appreciate your consideration of these comments and look forward to working with RGGI stakeholders during this Third Program Review process to develop policies that balance environmental objectives with economic and electric reliability considerations.

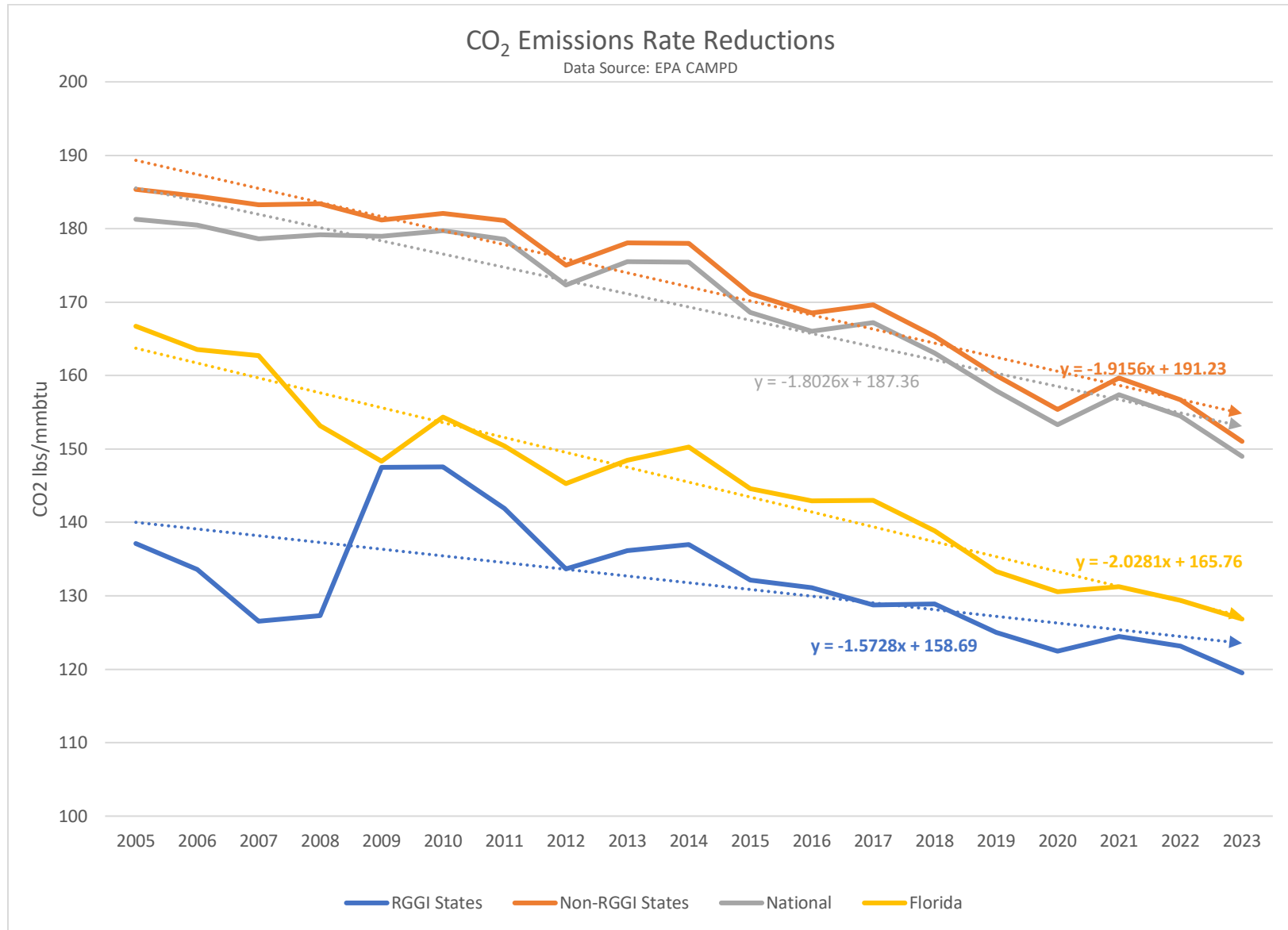
Sincerely,



Matt Lydon  
VP of Compliance

Cc: via email to representatives of PJM, NJBPU, NJEDA, NJDEP, and related stakeholders.

**Attachment 1:**



**Attachment 2:**

