RGGI ADVOCATES COALITION

Acadia Center Advancing the Clean Energy Future

207.236.6470 • acadiacenter.org

RGGI PROGRAM REVIEW COMMENTS

April 2023

From: RGGI Advocates Coalition

Andrew J. McKeon Executive Director RGGI, Inc. 90 Church Street New York, NY 10007 info@rggi.org

Mr. McKeon,

The undersigned organizations (RGGI Advocates Coalition) respectfully submit the following comments in response to the two public meetings held on March 19, 2023.¹ Where they presented their updated framework for the electricity sector analysis. During these meetings they requested feedback from stakeholders regarding their electricity sector modeling. It is vital that equity and environmental justice factors be integrated into the modeling. This letter will focus on both modeling comments and on areas where RGGI's electricity sector analysis can better incorporate equity considerations. We appreciate the RGGI states' efforts to conduct an open and transparent stakeholder process for the Third Program Review. We urge RGGI Inc. to incorporate the following recommendations in the Third Program Review.

Tie the Cap to Statewide Climate Goals and Reduce Pollution

In the Third Program Review, RGGI should set the cap for emissions no higher than the level of emissions allowed under state-level clean energy and GHG reduction laws in each of the relevant years.

The regional RGGI emission cap is the sum of the CO2 allowance budgets implemented by the RGGI participating states. Historically, the RGGI emissions cap has been set independent of specific clean energy goals or economy-wide decarbonization goals mandated by the states. However, the Third Program Review offers an opportunity for RGGI states to better align RGGI's cap with existing decarbonization policies at the state level. The RGGI cap is currently set to decline at a steady annual rate of 2.275 million tons (around 2.5% of current cap) through 2030 and then be held steady thereafter. Including all eleven states currently participating in RGGI auctions, the 2030 cap is 86.9 million tons CO2.²

¹ Please note some of the signatories to this letter are also submitting separate letters as organizations or coalitions.

² RGGI Program Review: Topics for Public Consideration

In the Third Program Review, RGGI should set the cap for emissions no higher than the level of emissions allowed under state-level clean energy and GHG reduction laws in each of the relevant years. In line with the latest science on climate, the RGGI participating states have adopted increasingly aggressive renewable energy portfolio (RPS) standards, clean energy standards (CES), and economy wide GHG reduction targets. An RPS or CES is a regulatory mandate to increase production of energy from renewable or clean resources, including wind and solar. While the exact list of resources that qualify under these policies varies from state to state, it often extends to resources including solar, wind, biomass, hydroelectricity, and nuclear. Such policies are already setting aggressive targets and mandates for the amount of clean energy that states must procure and levels of GHG reductions they must attain.

RGGI States Clean Energy and Economy Wide GHG Reduction Targets Adopted in Law³

State	RPS or Clean Energy Target ⁴	RPS or Clean Energy Target Year	Economy-Wide GHG Reduction Target	GHG Reduction Target Year
Connecticut	100%	2040	80%	2050
Delaware	40%	2035	N/A	N/A
Maine	100%	2050	80%	2050
Maryland	50%	2030	Net Zero	2045
Massachusetts	80%	2050	Net Zero	2050
New Hampshire	25.2%	2025	N/A	N/A
New Jersey	100%5	2035	80%	2050
New York	100%	2040	85% ⁶	2050
Pennsylvania	18%	2021	80% ⁷	2050
Rhode Island	100%	2033	Net Zero	2050
Virginia	100%	2050	Net Zero	2045
Vermont	75%	2032	80%	2050

RGGI should set the regional cap low enough to continue to be a tool by which the states can achieve their decarbonization goals in the electricity sector. Such a level is significantly below the existing cap: overall, the 9-state "state goals cap" would need to decline 95% below 2021 emissions levels in the 9 states by 2050 and the 12-state "state goals cap" would need to decline 89% below 2021 emissions levels in the 12 states by 2050.

³ Data on state-level GHG reduction goals and RPS/CES goals compiled by Acadia Center based on state law mandating clean energy and/or economy-wide GHG reduction targets achieved by a specific year. In the case of states that have executive orders that are significantly more aggressive than statute (Pennsylvania and New Jersey), those executive orders were also incorporated into the table. Center for Climate and Energy Solutions (C2ES) maintains interactive maps that summarize both state-level GHG reduction targets and RPS/CES targets. https://www.c2es.org/content/state-climate-policy/

https://www.c2es.org/document/renewable-and-alternate-energy-portfolio-standards/

⁴ The specific electricity generation resources that qualify as "renewable" or "clean" and the accounting mechanisms around renewable energy credits vary from state to state. This table is only intended to provide a high-level summary of existing state-level renewable and clean energy policies.

⁵ Executive Order No 315 established New Jersey's target of 100% clean energy by 2035, but the target is not adopted in statute.

⁶ NYSERDA on NY's Climate Act

⁷ Pennsylvania's Executive Order 2019-01 calls for the state to "...strive to achieve a 26 percent reduction of net greenhouse gas emissions statewide by 2025 from 2005 levels, and an 80 percent reduction of net GHG emissions by 2050 from 2005 levels" but the target is not adopted in statute.

Strengthen the Program by Improving the Emissions Containment Reserve, Price Floor, and Cost Containment Reserve.

In the Third Program Review, RGGI should also utilize market mechanisms to better align with state decarbonization policies. Specifically, the program can be strengthened by substantially raising the Cost Containment Reserve trigger price; increasing the Emissions Containment Reserve trigger price; and increasing both the Minimum Reserve Price and its rate of escalation to align more closely with market prices from the most recent years' auctions.

1.1 Cost Containment Reserve (CCR)

In the Third Program Review, the states should aim to substantially raise the CCR trigger price, reduce the size of CCR allowances released into the market and only release CCR allowances if trigger price is met in consecutive auctions.

Since being established in 2014, the CCR has been triggered in three years – 2014, 2015 and 2021. From 2016 to 2020, the CCR was essentially a non-factor, with the clearing price consistently coming in much lower than the CCR trigger price. Over that five-year period, the average clearing price was \$4.83, well short of the average CCR trigger price of \$9.91 over that same period. However, this changed dramatically in December of 2021 when the clearing price rose to \$13.00 and the CCR was triggered. Although the CCR was not triggered in 2022, all four auctions in 2022 came within a dollar of the CCR trigger price, highlighting the potential future significance the CCR has in dictating the total number of emissions allowances available in the market.

Substantially Raise the CCR Trigger Price

In the Third Program Review, the states should substantially raise the CCR trigger price, as a step towards reducing the power sector GHG emissions in line with state-level emissions reduction targets. While the CCR is created as a release valve, keeping allowances prices within a prescribed band, this band is far below both the social cost of carbon and prices for allowances in other market-based programs. The CCR trigger price is currently set well below the social cost of carbon, which is an estimate, in dollars, of the cost of damage created by emitting one ton of CO₂ into the atmosphere. For example, a recent study published in *Nature* estimated the social cost of carbon to be approximately \$168 per short ton of CO₂, over 12 times higher than RGGI's average clearing price of \$13.46 in 2022.9

Other emissions trading systems, most notably the European Union Emission Trading System (EU-ETS) and the joint California-Quebec emissions trading market, have significantly higher carbon prices than RGGI. For example, in 2022, the average EU-ETS carbon price was USD \$79.64 per short ton of CO₂, nearly six times higher than RGGI's 2022 average clearing price. As of February 2023, the EU-ETS had reached an all-time high of USD \$99.05 per short ton. ¹⁰ In 2022, the joint California-Quebec allowance auctions averaged USD \$25.81

⁸ Data on clearing prices and trigger prices from RGGI "Allowance Prices and Volumes" https://www.rggi.org/auctions/auction-results

⁹ Rennert, K., Errickson, F., Prest, B.C. et al. Comprehensive evidence implies a higher social cost of CO2. Nature 610, 687–692 (2022).

¹⁰ Data on historic European Trading System (EU-ETS) carbon prices from Trading Economics "EU Carbon Permits" https://tradingeconomics.com/commodity/carbon

per short ton of CO_2 , nearly twice as high as RGGI's in the same year.¹¹ Although these trading systems apply to a much larger swath of the economy than RGGI, their price levels are informative as prices that markets will bear, without resorting to a mechanism like the CCR.

Reduce The Size of CCR Allowances Released

The CCR works by releasing additional allowances into the market when a certain trigger price is met. However, as the program has grown and become more established, it becomes clearer that the size of the CCR allowances released should be reduced. Since there is more predictability in the market there should not arise the need to provide additional allowances. Therefore, In the Third Program Review, the states should update the CCR to releasing less than 10% of the regional cap. Less than the 10% allowance release should be sufficient to maintain market stability without excessively inflating allowance prices.

Only Release CCR Allowances If Trigger Price Is Met in Consecutive Auctions

In the Third Program Review, the states should aim to update the CCR trigger so that CCR allowances are only released if the trigger price is met in consecutive auctions. This would prevent sudden surges in allowances that could lead to market instability. Requiring multiple consecutive auctions to trigger the release of CCR allowances would ensure that it is not a one-time event, but rather a trend of high allowance prices. This would also give the market time to adjust and allow firms to respond with investments in clean energy and efficiency measures. By implementing these changes to the CCR mechanism, RGGI Inc. can ensure that the program continues to achieve its emissions reduction goals while maintaining stable and predictable allowance prices.

1.2 Emissions Containment Reserve (ECR)

In the Third Program Review, the states should aim to increase the ECR trigger price and aim for New Hampshire and Maine to plan to participate.

The ECR is essentially the inverse of the CCR – taking allowances off the market if prices fall too low. This market mechanism is an important tool for ensuring that the RGGI program stays within its emissions cap while maintaining a competitive market. First implemented in the March 2021 auction, the ECR has yet to be triggered.

In the Third Program Review, the states should increase the ECR trigger price to reflect the aggressive emission reductions the states need to achieve. The ECR trigger price, which is currently \$6.87 per ton, will only rise to \$11.03 in 2030, a figure far below the average market price of \$13.46 in 2022. In each of the four auctions in 2022, the market price has been at least twice the ECR trigger price and therefore has been rendered almost irrelevant Increase quantity of ECR allowances.

¹¹ Data on California- Québec emissions trading market carbon prices from California Air Resources Board California Cap-and-Trade Program Summary of California-Québec Joint Auction Settlement Prices and Results https://ww2.arb.ca.gov/sites/default/files/2020-08/results_summary.pdf

Unlike the CCR, the ECR is not applicable to all states – Maine and New Hampshire are not participating in the ECR. Currently, only nine out of the ten RGGI participating states have implemented the ECR, with Maine and New Hampshire being the only exceptions. This creates an unfair advantage for the two states, as they are allowed to participate in the RGGI program without being required to take part in the ECR mechanism. This sets a bad precedent for the RGGI program, as it undermines the effectiveness and integrity of the emissions cap. To address this issue, RGGI states should aim have all participating states implement the ECR mechanism. By doing so, RGGI can ensure that all states are contributing equally to the collective effort of reducing carbon emissions. Furthermore, the adoption of ECR by all participating states would increase the effectiveness of the RGGI program, as it would improve the program's ability to respond to market fluctuations in emissions. By requiring the adoption of ECR, RGGI can ensure that the emissions cap is being upheld and that the program is contributing to the larger goal of mitigating climate change.

1.3 Price Reserve

In the Third Program Review, the states should increase the minimum reserve price.

While the minimum reserve price was a very significant factor in setting market prices in the early years of RGGI, in recent years, the auction clearing price has been so far above the reserve price to render it irrelevant. For example, in 2022, the clearing price was, on average, \$11.02 higher than the reserve price. ¹² Part of the divergence between the two numbers can be explained by the small rate of increase the minimum reserve price has been subject to compared to the sharply increasing market clearing prices. For instance, in 2022, the average clearing price was over six times higher than the average clearing price in 2010, but over that same 12-year period the reserve price only increased 30%.

In the Third Program Review, the states should increase the minimum reserve price and establish a more ambitious rate of increase closely aligned with market prices in the most recent years' auctions. This reform will ensure that prices will stay more consistent and RGGI states will still have the proceeds necessary to encourage stable investments in renewable electricity and energy efficiency, to grow these resources and contribute to overall decarbonization.

¹² Data on clearing prices and reserve prices from RGGI "Allowance Prices and Volumes" https://www.rggi.org/auctions/auction-results

Environmental justice and equity considerations

The Program Review offers another important opportunity for the RGGI states to make a detailed assessment of how RGGI funds are being invested in communities and work to make those investments more equitable, both through RGGI itself and through accompanying state laws. It is important for the Third Program Review to incorporate the voices of communities, both through public comment opportunities and concerted community outreach.

Equitable Investment

RGGI states employ different definitions of communities that have been disproportionately burdened by the fossil fuel economy and are targeted for policies to improve environmental conditions, including: environmental justice communities, low-to-moderate income communities, disproportionately affected communities, distressed communities, and overburdened communities. Ideally, in the Third Program Review, the states would arrive at a common definition of EJ community and set a minimum allocation of proceeds for investment in EJ communities. Even if states maintain differing definitions, they could agree on common concepts such as how to identify and define the populations targeted for direct investment, relative to current trends. In the Third Program Review, the states should be able to arrive at both a shared commitment to levels of investment in these communities, and a standardized way to collect information on how allowance revenues are spent. Being able to track the impacts of RGGI in these targeted communities in a consistent manner is necessary even if the exact set of communities varies between states. Doing so would allow RGGI to report on spending at a regional level with the granularity of data necessary to identify whether proceeds are equitably invested in the communities targeted by the states.

To create our recommendation regarding the appropriate minimum allocation of proceeds for investment in EJ communities, Acadia Center looked to the stakeholder comments of the Northeast Regional members of the Climate Justice Alliance to RGGI of December 3, 2021. Specifically, that group of advocates recommended that:

"For RGGI to come close to being equitable, the level of investment should be at least proportional to the percentage of the population that meets the definition of "overburdened and underserved" in each state. To ensure that investments actually reach the populations most in need of this funding, we request that the model rule specify that a minimum of 40%-50% of investments, not benefits from those investments, be allocated to our communities. This 40% mandate is in line with state and federal precedent. While RGGI revenue investments are decided by the individual participating states, there should be regional guidance to ensure there is equity across the region". 13

Establishing a requirement that a minimum of 40%-50% of RGGI proceeds be invested in EJ communities is crucial in promoting equity. This value should not change even if other RGGI funds are raided, in order to prioritize the needs of EJ communities who are disproportionately impacted by climate change. By investing a consistent percentage of funds in these communities, we can help address environmental injustice and promote a more equitable transition to a low-carbon economy.

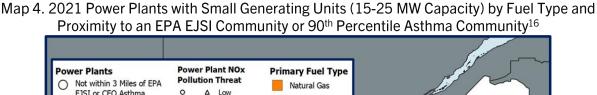
¹³ Northeast Environmental Justice and Climate Justice Region Wide Stakeholder Comments to RGGI, December 3, 2021, p. 6, available at: https://www.rggi.org/sites/default/files/Uploads/Program-Review/2021_Comments/Session2/CJA_Public_Comment_2021-12-03.pdf

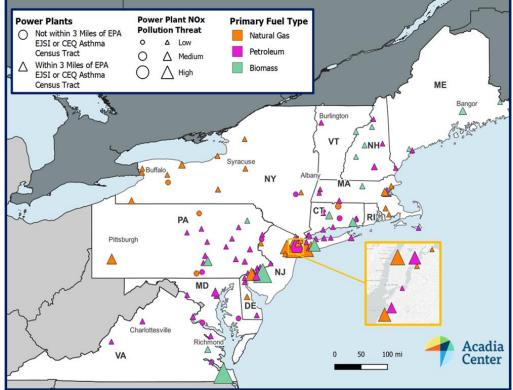
Lower the Threshold Capacity for RGGI Regulation

Lower the capacity that triggers RGGI regulation to include all generating units of 15 MW or higher, and potentially even lower for co-located units, as has been recommended by the Climate Justice Alliance groups.

"We recommend that RGGI Inc. lower the overall nameplate capacity threshold to 15 MW, and lower the threshold for co-located units to 10 MW. This change will bring a significant number of generating units into the RGGI program." ¹¹⁴

Acadia Center found that 240 generating units at 115 power plants could be brought under the RGGI cap that fall under the between 15-25 Mwh threshold. Such a change could have a potentially significant impact on health, as 91% of these smaller generating units are located within a 3-mile radius of an EPA's Environmental Justice Screening and Mapping Tool (EJScreen) Socioeconomic Indicators or a high asthma census tract exceeding the 90th national percentile. This could also generate an estimated \$25.9 million in RGGI proceeds (using 2021 prices).¹⁵





¹⁴ Ibid, 5

¹⁵ See Acadia Center's RGGI Report, for more details

¹⁶ Map developed based on Acadia Center analysis of multiple data sources: Power plant location and NOx emissions data from EIA and EPA's Clean Air Market Data, EJ socioeconomic indicator data from EPA EJScreen, asthma prevalence data from CEQ's CEJST, and population data from U.S. Census. See <u>Acadia Center's RGGI Report</u>, Appendix 1 Methodology for more details

Air quality

RGGI Inc. should prioritize air quality monitoring to improve public health and address environmental justice concerns. The Third Model Rule process represents an opportunity for states to work collaboratively to secure better data and address disparities in air quality, particularly in pollution hot spots and environmental justice communities. We recommend that the RGGI states incorporate air quality monitoring into their program review, states should increase funding and enforcement of air quality monitoring, targeting accelerated decreases in emissions at power plants that pose the largest respiratory health risk to these communities. Additionally, there should be a focus on identifying and monitoring air pollution hotspots, exploring how regional cooperation and individual state powers can further regulate air quality and power plants. Increased funding for and enforcement of air quality monitoring, especially in environmental justice communities and areas with high incidence of asthma within 3 miles of RGGI plants, is critical in securing better data and addressing air quality issues. Overall, these recommendations aim to prioritize public health and environmental justice concerns in the context of RGGI's work.

Inclusive process

To effectively address the concerns of impacted communities, it is necessary to have more dedicated outreach and engagement. Ideally by establishing a requirement that members of EJ communities have meaningful participation in decisions regarding programs for investment. Engagement should result in changes to climate policies that meet the needs of these communities. It is essential for RGGI Inc. and participating states to prioritize the needs of impacted communities and incorporate their input into policies. Comments from overburdened and underserved communities must be given equal weight as comments about emissions reduction and revenue generation. Repeated marginalization must be addressed to fully engage these communities in regional processes. Accessible public data is key to an inclusive and equitable process. We urge RGGI Inc. to transparently track whether programs identified as providing EJ community investments are meeting their quantitative metrics and adjust programs as necessary to ensure the minimum percentage investment is achieved.

The undersigned organizations will continue to advocate for RGGI and prioritize EJ/frontline communities in the Northeast and advise RGGI Inc. to make binding commitments to prioritize their concerns with community leadership.

We appreciate the time and consideration you have given to this issue. We are hopeful to continue our participation in discussions regarding RGGI and collaborating to further enhance the effectiveness of the RGGI Program. If you have any remarks or inquiries stemming from this letter, kindly get in touch with Paola Moncada Tamayo at ptamayo@acadiacenter.org.

Sincerely,

RGGI Advocates Coalition

Paola Moncada Tamayo, Acadia Center
John Carlson, Ceres
Rosemary Wessel, Program Director, No Fracked Gas in Mass
Jane Winn, Executive Director, Berkshire Environmental Action Team
Pat McDonnell, President and CEO, Citizens for Pennsylvania's Future
Amanda Barker, Green Energy Consumers Alliance
Susannah Hatch, Environmental League of Massachusetts
Priya Gandbhir, Senior Attorney, Conservation Law Foundation
Teresa Eickel, Executive Director, Interreligious Eco-Justice Network
Deb Pasternak, Director, Sierra Club