Regional Greenhouse Gas Initiative Status Report

Part II: Achieving Climate Commitments



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Advancing the Clean Energy Future

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Acadia Center is a non-profit, research and advocacy organization committed to advancing the clean energy future.

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1. Introduction – Determining RGGI's Future

Since the initial development of the Regional Greenhouse Gas Initiative (RGGI), participating states have been climate leaders time and time again. From establishing the nation's first multi-state program to reduce power sector carbon emissions, to the decision to auction RGGI allowances, to reducing the RGGI cap by almost half in the last Program Review, RGGI state leaders have demonstrated that bold action on climate can yield substantial benefits. Building on this legacy, RGGI states must now determine the program's next chapter.

As detailed in Part I of this 2016 RGGI Status Report,¹ RGGI has produced substantial benefits for the region – including significant emissions reductions and increased economic growth – and electricity prices remain lower than when RGGI launched. Building on this history of success, the 2016 Program Review provides an opportunity for the RGGI states to make necessary improvements to achieve both state and federal climate requirements while continuing to generate benefits for the region. Specifically, strengthening the RGGI program will help the states make progress toward achieving 40% economy-wide reductions in greenhouse gas (GHG) emissions by 2030, on the path to the 80% reductions required by state laws. 2016 is also a major year for climate policy nationally, as states across the country continue to prepare for EPA's Clean Power Plan (CPP). Strengthening RGGI will enable participating states to go above and beyond the modest requirements of the CPP, contributing to broader national and international momentum to address the threat of climate change. Finally, improving RGGI in ways that build on the program's best design elements and experience will establish a strong foundation on which to build toward the goal of integrating with market-based climate programs taking shape in other states and regions.

Necessary RGGI Reforms:

- Extend the RGGI cap to 2031 to provide long-term certainty for the market and to enable compliance with the CPP.
- Align RGGI's cap decline with existing, state level economy-wide GHG reduction requirements.
- Adjust for banked allowances that could undermine RGGI's effectiveness.
- Strengthen the Cost Containment Reserve to prevent inflation of the RGGI cap.

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¹ RGGI Status Report, Part I: Measuring Success, Acadia Center, July 2016. Available at: http://acadiacenter.org/document/measuring-rggi-success/

2. 2016 RGGI Program Review

In the 2016 RGGI Program Review currently underway, RGGI states will determine changes to the program's current design and chart a course for RGGI's future. Reforms are needed to extend the RGGI cap to 2031, align the cap level with existing state greenhouse gas (GHG) reduction requirements, make adjustments to address an oversupplied market for emissions allowances, and strengthen the cost containment reserve.

The Program Review is expected to be completed by the end of 2016, resulting in an updated RGGI model rule. The process for implementing the updated model rule varies from state to state, but an improved RGGI program should be fully adopted across the region by the start of 2018.

2.1 Establishing Cap Levels through 2031

The Clean Power Plan (CPP) sets CO₂ emissions limits that each state must meet from 2022 through 2031.² In order to demonstrate that RGGI will guarantee the emissions reductions necessary to comply, the RGGI cap must extend through 2031 at levels equal to or less than the CPP targets. Extending the cap level to 2031 provides certainty to policymakers, compliance entities, and other market participants to enable sound policy choices and investment decisions.

2.2 Utilizing RGGI to Achieve State Climate Requirements

All of the RGGI states have adopted commitments to reduce carbon emissions in order to prevent the worst impacts of climate change. In order to guide action on climate policy, all nine states have established economy-wide GHG emissions reduction targets for 2030, and eight of the nine states have corresponding targets for 2050. As shown in Table 1, the 2030 targets center around a 40% reduction, while the 2050 targets focus on an 80% reduction in GHG emissions.

RGGI State	2030 Economy-Wide GHG Target	2050 Economy-Wide GHG Target			
Connecticut	35-45% below 1990	80% below 2001			
Delaware	30% below 2008	-			
Maine	35-45% below 1990	75-85% below 2003			
Maryland	40% below 2006	90% below 2006			
Massachusetts	35-45% below 1990	80% below 1990			
New Hampshire	35-45% below 1990	80% below 1990			
New York	40% below 1990	80% below 1990			
Rhode Island	35-45% below 1990	75-80% below 2002			
Vermont	35-45% below 1990	75% below 1990			

Table 1: RGGI State Economy-Wide GHG Targets

² For more information on CPP targets for each state, see: <u>https://www.epa.gov/cleanpowerplantoolbox/clean-power-plan-state-specific-fact-sheets</u>

Successful achievement of these economy-wide targets for 2030 and 2050 will depend on reductions from multiple sectors, but the electric sector will need to play an outsized role. A recent study by Synapse Energy Economics³ analyzed the lowest cost pathway to reducing region-wide emissions across all sectors by 40% from 1990 levels. This analysis, which assessed the opportunities for emissions reductions across the buildings, electric, and transportation sectors, determined that the most cost-effective pathway to achieving the region's 2030 targets would require the RGGI cap to decline to 39 million tons by 2030. Not only would this scenario enable achievement of ambitious climate targets, but it would result in substantial benefits for the region, as described in Synapse's study:

"Achieving a 40 percent reduction using these strategies yields \$25.7 billion in total savings from 2016 through 2030 and 58,400 new jobs each year in the RGGI region. Asking more from RGGI than its original targets is a win-win for consumers, workers, and the environment."

A 2030 RGGI cap of 39 million tons would require an annual RGGI cap decline of 5% from 2020 to 2030. A 5% annual reduction would exceed the current rate of 2.5% each year, but would be more gradual than the annual emissions reductions achieved by RGGI to-date. As shown in Figure 1, emissions have declined by an average of 7.1 million tons per year since 2008, while a 5% annual reduction from 2020 requires reductions of 3.9 million tons per year.

The RGGI states are currently evaluating a 5% annual cap reduction and a number of other cap options through detailed electric sector modeling.⁴ The primary cap levels under consideration are:

- No change: 2020 cap level held constant through 2031
- 2.5% Cap: cap declines by 2.5% from 2020 through 2031
- 5% Cap: cap declines by 5% from 2020 through 2031

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³ Synapse Energy Economics, *The RGGI Opportunity 2.0*, 2016. Available at: <u>http://www.synapse-energy.com/sites/default/files/RGGI_Opportunity_2.0.pdf</u>

⁴ For more information on modeling conducted for the RGGI program review, see: <u>http://www.rggi.org/design/2016-program-review/rggi-meetings</u>



Figure 1: RGGI Cap Scenarios and Projected Emissions

Adopting the CPP targets—the regulatory minimum—would signal that reducing emissions from the electric sector is no longer a priority, and would hinder states' abilities to achieve necessary economywide reductions in emissions. In fact, keeping the cap level from 2020-2030 would allow emissions to *increase* in the power sector.⁵ Extending the 2.5% annual reduction in the cap would build on progress to-date, but may require more expensive measures from other sectors (transportation, building heating, and industry) to achieve necessary economy-wide reductions. Increasing ambition by adopting a 5% annual reduction would set a bold precedent, and keep the program aligned with climate requirements and the pace of emissions reductions seen to date.



 $^{^{5}}$ The RGGI cap in 2020 is set at 78.2 million tons of CO₂, while the Clean Power Plan target for the region for 2030-2031 is 80.1 million tons.

2.3 Complementary Policies

Recent commitments to clean energy will make more ambitious RGGI caps easier to achieve. The recent extension of Rhode Island's Renewable Portfolio Standard,⁶ a three-state procurement of clean energy,⁷ and a landmark bill in Massachusetts to procure hydroelectricity and offshore wind,⁸ all exist above and beyond clean energy commitments captured in RGGI modeling to date.⁹ The carbon-free energy needed to meet these new requirements will primarily displace electricity generation from natural gas plants in the region, which will avoid emissions of CO₂. Together, these additional renewable resources not included in the latest RGGI modeling will supply 12 million MWh of carbon-free energy in 2030.¹⁰ Assuming that this electricity is displacing generation from natural gas with an emissions rate of 0.44 tons/MWh,¹¹ approximately 5.3 million tons of CO₂ will be avoided in 2030, and 45.2 million tons of CO₂ will be avoided cumulatively from 2020 through 2030. A 5.3 million ton reduction in 2030 emissions equates to 27% of the difference between the 2.5% and 5% cap, and the cumulative total of 45.2 million avoided tons of CO₂ emissions fulfills 42% of the total cumulative emissions difference between the 2.5% and 5% cap from 2020-2030.

Additional Renewables	2030 Generation (MWh)	Avoided 2030 CO ₂ Emissions (short tons			
RI RPS Increase	1,752,728	771,201			
MA Hydro	6,615,000	2,910,600			
CT Hydro	2,887,500	1,270,500			
RI Hydro	761,900	335,236			
Total	12,017,129	5,287,537			

Table 2: Avoided Emissions from Additional Renewable Energy

⁶ Rhode Island H.7413A/S.2185A extends the state's RPS from 14.5% by 2019 to 40% by 2035. See: <u>https://legiscan.com/RI/bill/S2185/2016</u>

⁷ Connecticut, Massachusetts and Rhode Island have solicited proposals for clean energy to meet their energy and environmental objectives. See: <u>https://cleanenergyrfp.com/.</u> This analysis assumes that: Connecticut will purchase 2,888 GWh of hydroelectricity, as authorized under CT Public Act 13-303, and that Rhode Island will purchase 762 GWh, in proportion to the state's load-share, and authorized under state law. Delivery of hydroelectricity is assumed to start in 2022. ⁸ MA H.4568, *An Act to Promote Energy Diversity*, available at <u>https://malegislature.gov/Bills/189/House/H4568</u>

⁹ The most recent round of IPM modeling for the RGGI Program Review assumes compliance with state Renewable

Portfolio Standard requirements in place as of June 17th, 2016, and includes New York's recently established Clean Energy Standard, but does not account for purchases of hydroelectricity that do not fall under state RPSs, and does not include Rhode Island's RPS update.

¹⁰ Both hydroelectricity and RPS-eligible resources are authorized for procurement, and this analysis assumes that half of the capacity is provided by hydroelectricity and half is provided by onshore wind (the cheapest RPS-eligible resource). The resulting energy mix is 70% hydroelectricity and 30% wind, as wind in the region operates at an average 30% capacity factor. This 30% wind is already accounted for in assumed compliance with the states' RPS targets, so is not included in the 12 million MWh of new clean energy commitments.

¹¹ The CO_2 emissions rate of .88 lbs/kWh (0.44 tons/MWh) is specifically calculated for combined cycle natural gas plants operating in the RGGI states. Data for these calculations was drawn from EIA form 923 and EPA emissions data.

2.4 Adjusting for Banked Allowances

Adjusting the new emissions cap to account for banked allowances is necessary to preserve RGGI's integrity, and builds on the approach taken in the last Program Review. One of the most important but least discussed outcomes of the 2012 Program Review was the decision to address the large allowance surplus that had accumulated. In RGGI's early years, the cap far exceeded emissions, resulting in the accumulation of a 140-million-ton allowance surplus by the end of 2013.¹² In order to prevent this bank of allowances from inflating RGGI's cap and undermining the program's environmental performance, the RGGI states developed a novel solution: gradually eliminate the allowance surplus by adjusting future cap levels downward.

	2014	2015	2016	2017	2018	2019	2020	Total
RGGI Cap	91	88.7	86.5	84.3	82.2	80.2	78.2	591.2
RGGI Adjusted Cap	82.8	66.8	64.6	62.5	60.3	58.3	56.3	451.6
Adjustment	8.2	21.9	21.9	21.9	21.9	21.9	21.9	139.6

Table 3: RGGI Cap and Adjusted Cap Levels (million short tons)

As shown in Table 3, the cumulative cap level from 2014 through 2020 was adjusted downward by 139.6 million tons, corresponding to the quantity of the allowance surplus.¹³

Adjusting the cap downward accounted for allowances purchased prior to 2014, while preserving the value of allowances purchased by market participants. However, the agreed adjustment for previously banked allowances does not prevent a new surplus from accumulating from 2014 through 2020. In fact, current trends suggest that a substantial additional surplus will be amassed by the end of the decade.

Looking out to 2020, there are two factors that will likely contribute to an allowance surplus. First, emissions continue to fall below cap levels while all available allowances continue to be purchased. In the first two years under the new cap, emissions have fallen below cap levels by 4.7 million tons (2014) and 5.6 million tons (2015). Secondly, purchases from the Cost Containment Reserve (CCR) have added to the surplus, introducing 15 million additional allowances without corresponding emissions to balance the market.

The size of the allowance surplus going forward can be estimated by comparing the RGGI cap to emissions projections from IPM modeling for the RGGI program review.¹⁴ As shown below in Figure 2, projected emissions under the 2.5% cap scenario (the "middle of the road" scenario) fall well below the



¹² Potomac Economics, *Annual Report on the Market for RGGI CO2 Allowances: 2013*, available at: <u>https://www.rggi.org/docs/Market/MM_2013_Annual_Report.pdf</u>

¹³ This adjustment was conducted in two steps; one adjustment to account for allowances banked during the first control period (2009-2011) and a second adjustment for the second control period (2012-2014). For more information, see: <u>https://www.rggi.org/docs/SCPIABA.pdf</u>

¹⁴ For more information on modeling approaches and results for the 2016 RGGI program review, see: <u>http://www.rggi.org/design/2016-program-review/rggi-meetings</u>

RGGI cap, increasing the surplus each year from 2016 to 2020.¹⁵ In addition to the 25.3 million ton surplus accrued in 2014-2015, this level of projected emissions would result in a 2020 surplus of 48.5 million tons. Additionally, under the current structure of the CCR, 10 million additional allowances could be purchased each year. If all available CCR allowances are purchased from 2016-2020, the 2020 surplus could rise to 98.5 million tons.



Figure 2: RGGI Allowance Surplus through 2020

In order to account for the potential allowance surplus, the RGGI states should commit to conducting a post-2020 adjustment for banked allowances similar to steps taken in the last Program Review. Adjusting for banked allowances would clarify the states' environmental objective and maintain the program's integrity while preserving the value of purchased allowances. Addressing banked allowances would also help to align RGGI with other carbon trading programs that may emerge under the CPP—programs that will not be carrying forward their own substantial allowances surpluses.

2.5 Strengthening the Cost Containment Reserve

In order to mitigate price volatility, RGGI states established a Cost Containment Reserve (CCR) that mints additional allowances when price thresholds are reached. Despite the fact that the CCR was designed to protect market participants and ratepayers from extreme and unexpected spikes in allowance prices, CCR allowances have been purchased in 2014 and 2015 under what appear to be normal market conditions. Emissions fell below the cap level in both of these years and a substantial existing allowance surplus ensured that there would be no near-term scarcity, yet all of the available

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¹⁵ This assumes that all allowances, excluding the cost containment reserve, are purchased.

CCR allowances were purchased (five million in 2014, ten million in 2015). As a result, the CCR has effectively inflated the RGGI cap by 15 million tons. With ten million additional CCR allowances available each year through 2020, this mechanism could permit a total of 65 million tons of CO2 emissions in addition to the nominal cap from 2014-2020.

There are a number of potential solutions for the CCR's current shortcomings. The CCR could be eliminated to ensure that the RGGI cap reflects maximum allowable emissions. Alternatively, RGGI states could adopt the cost containment approach currently being used by the California emissions trading program. Like the RGGI CCR, in California's program additional allowances become available for purchase when price thresholds are met. Unlike the RGGI CCR, about 4% of California's original number of allowances from the capped budget is held back in the allowance price containment reserve. If this reserve of allowances is exhausted, there is limited "borrowing" allowed from the latest program years.¹⁶ Under this approach the cumulative supply of allowances – and permissible emissions – is not increased. To this point in the 2016 Program Review states have not proposed adopting a California-like approach.

If drawing CCR allowances from below the cap is off the table, it will be of utmost importance that price triggers are increased to ensure that CCR allowances are only purchased during periods of exceptionally high demand. This is the approach that California has taken toward price signals for cost containment, where reserve allowances become available at trigger prices well above the expected price range. In 2016, California's reserve allowances can be purchased if prices reach \$47.54 per ton,¹⁷ nearly four times higher than the most recent auction clearing price of \$12.73.¹⁸ In RGGI, low CCR price triggers (\$4 in 2014, \$6 in 2015, \$8 in 2016) may have actually put *upward* pressure on allowance prices, enticing auction participants to bid slightly higher in order to release additional allowances.¹⁹ Establishing higher price triggers would eliminate this undesired incentive and would result in a CCR that better serves its intended purpose.

The RGGI states should also consider whether the CCR is truly a necessity for the program going forward, and whether there are other, better solutions to mitigate price volatility. Should the RGGI states decide to trade with other states, the resulting broadened market would be less vulnerable to dramatic price shifts. Adding Pennsylvania as a trading partner, for example, would more than double the size of the RGGI market.



¹⁶ Explanation of California's Allowance Price Containment Reserve: <u>http://www.arb.ca.gov/regact/2010/capandtrade10/capv3appg.pdf</u>

¹⁷ 2016 Annual Allowance Price Containment Reserve Notice, December 1, 2015:

http://www.arb.ca.gov/cc/capandtrade/auction/2016 reserve sale aper notice.pdf

¹⁸ For more information on California's recent auction results, see:

http://www.arb.ca.gov/cc/capandtrade/auction/results_summary.pdf

¹⁹ Comments of Judith Schröter, Lead Analyst US Carbon & Offset Markets, ICIS, at April 29th learning session put on by the Collaborative for RGGI Progress.

3. The Clean Power Plan and RGGI

RGGI's approach offers an attractive option for states considering how best to meet CPP requirements. RGGI's flexible, market-based system reduces emissions at lower cost than alternative approaches—a trend that is now being borne out in modeling in other regions.²⁰ Additionally, states' control over key decisions related to allowance allocation and use of auction proceeds provides the flexibility to achieve distinct local objectives. RGGI is also simple to administer and familiar to regulators and emitters alike. Power plant owners in the majority of the country are already accustomed to market-based environmental programs that regulate emissions responsible for acid rain, smog, and other hazardous pollutants.²¹ This familiarity with market-based programs is one reason that the power sector appears more receptive to carbon standards than political discourse would suggest.²²

Market-based programs also have a history of achieving objectives at lower costs than anticipated, as the capacity to realize profits drives innovation in business operations and technological advancement. The landmark Acid Rain Program, which utilizes an allowance trading approach to reduce emissions of acid rain-causing sulfur dioxide (SO₂), was projected to have allowance costs of \$250-\$500/ton. However, in order to realize cost savings, power plant operators were able to reduce emissions far faster than expected by switching to cleaner sources of coal and driving advances in technology to remove SO₂ pollution from smokestacks using "scrubbers." These market-driven innovations meant that actual allowance prices were only \$100-\$200/ton, or less than half the anticipated cost.²³ RGGI itself follows this pattern. Before RGGI launched, states projected that the program would cause the price of electricity to *increase* by approximately 1.25% by 2012.²⁴ In practice, electricity prices have actually *decreased*, falling by 3.4% across the region since RGGI launched.²⁵

3.1 Criteria for Trading

Despite the Supreme Court's stay on the CPP, many states are continuing to develop plans for complying with the rule and moving toward a cleaner power sector. As these states develop plans, many will likely adopt mass-based trading as a low-cost solution. The emergence of these new carbon markets will present a significant opportunity to achieve additional low-cost emissions reductions; broader trading results in emissions reductions at lower costs, and expanding RGGI's boundaries—or moving towards a harmonized, national program—should be a high priority. At the same time,

²² Some of the largest power companies in the country – including Calpine, Consolidated Edison, Exelon, National Grid, New York Power Authority, and NextEra – submitted joint comments to with the environmental community calling for EPA to recognize RGGI as a compliance mechanism for current states and any other states wishing to join. See: http://energy.pace.edu/sites/default/files/publications/RGGI%20EPA%20Collaborative%20Dec%205%20with%20Signat ories.pdf



²⁰ PJM's recent analysis of the CPP shows the lowest compliance costs associated with multistate, mass-based trading. See: <u>http://www.pjm.com/~/media/documents/reports/20160506-pjm-clean-power-plan.ashx</u>

²¹ 27 states comprising the majority of the Midwest, South, Mid-Atlantic, and Northeast are currently included in the marketbased Clean Air Interstate Rule, see <u>http://www.epa.gov/airmarkets/progress/ARPCAIR12.html</u>

²³ See: <u>http://ny.water.usgs.gov/projects/NAPAP/NAPAP_2011_Report_508_Compliant.pdf</u>

 ²⁴ See "Updated Reference, RGGI Package – 10/11/06" available at: <u>http://rggi.org/design/history/modeling</u>
²⁵ RGGI Status Report, Part I: Measuring Success, Acadia Center, July 2016. Available at:

http://acadiacenter.org/document/measuring-rggi-success/

integrating with nascent markets should be pursued in a way that promotes the best environmental and economic outcomes, and preserves and disseminates RGGI's best practices to the greatest practical extent. By establishing key criteria as protocols for new trading partners, the RGGI states can promote better economic and environmental outcomes while encouraging other states to incorporate best practices into design of their own programs.

3.1.1 Cover emissions from new and existing sources

RGGI treats emissions from new and existing sources equally, whereas the CPP only requires that states cover emissions from existing sources, making coverage of emissions from new sources optional.²⁶ States that choose not to cover emissions from new sources risk emissions leakage: shifting generation and emissions from existing units to new units that are not subject to the CPP.²⁷ By applying different standards to emissions based on when the emitting unit was built, states could distort the market in favor of new generation resources. In order to avoid emissions leakage from RGGI states to uncovered new units in other states and any resulting market distortion, the RGGI states should only trade with states that cover both existing and new sources.

3.1.2 Price floor

RGGI's achievements to-date and future success are predicated on establishing an adequate price on carbon emissions. This price sends a signal to the market in favor of less carbon-intensive electricity generation, and the price of allowances determines how much auction revenue is generated for reinvestment in complementary programs that deliver additional emissions reductions and economic benefits. In RGGI's early years, when available allowances dwarfed regional emissions, a price floor (or "reserve price") helped to keep the program afloat, preventing the sale of allowances below a specified threshold.²⁸ As shown in Figure 3, RGGI prices have increased since the announcement of program improvements in 2013, and the region now has a more meaningful price signal and additional revenue to support energy efficiency and clean energy programs.

²⁶ EPA's authority to implement the Clean Power Plan is drawn from section 111(d) of the Clean Air Act, which pertains narrowly to existing sources of emissions. Therefore, EPA cannot require states to cover emissions from new sources under the Clean Power Plan, as new sources are addressed by section 111(b) of the Clean Air Act. See: https://www.epa.gov/cleanpowerplan/what-epa-doing#overview

²⁷ While EPA has proposed a mechanism to prevent leakage under this approach, this path falls short of guaranteed prevention of emissions leakage. For more information, see: NextGen Climate America, *Closing the Leakage Loophole in the Clean Power Plan*, 2016, available at: <u>https://nextgenamerica.org/news-reports/closing-the-leakage-loophole-in-the-clean-power-plan/</u>

²⁸ Price control mechanisms like the price floor and the CCR trigger price only apply to allowance auctions; secondary market transactions can occur at any price level.



Figure 3: RGGI Auction Results and Price Controls

When opening RGGI to trade with new partners, efforts must be taken to ensure that allowances prices in the RGGI region are not reduced to zero. New mass-based trading programs created under the CPP are likely face the same oversupply issues experienced in RGGI, and analyses show that allowance prices in these programs could be inconsequential to nonexistent.²⁹.When pursuing trading with new partners, RGGI states should endeavor to preserve minimum allowance price controls, either by limiting trading to partners that establish minimum price controls, or by adopting mechanisms that enable trading while preserving minimum prices within the RGGI region. One such approach proposed by Dallas Burtraw would provide an allowance that could be traded outside the RGGI region for each allowance purchased at RGGI auctions.³⁰

3.1.3 Best practice in auction design and reinvestment

In order to build on RGGI's best practice states should encourage potential trading partners to auction allowances and reinvest in energy efficiency and other consumer programs. RGGI's experience shows that auctions are an effective means of capturing the benefit of a public resource (an allowance is an

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²⁹ Recent IPM modeling conducted by M.J. Bradley & Associates determined that national mass-based trading under four different CPP scenarios would result in allowance prices of \$0/ton in 2025, with 2030 prices ranging from \$0 to \$6.05 (in 2012\$). For more information, see: <u>http://www.mjbradley.com/sites/default/files/MJBA_CPP_IPM_Report_III_2016-06-01_final_0.pdf</u>

³⁰ Keeping A Lid On It: Emission and Price Interactions between RGGI and the Clean Power Plan, Resources for the Future, 2016. See: http://www.rff.org/files/document/file/160712_RGGI_Burtraw.pdf

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authorization to pollute), and reinvesting in energy efficiency is one of the most effective ways to reduce emissions and consumer costs.³¹

Free allocations could also distort electricity markets. States that distributes allowances to generators for free (e.g.., based on historical emissions) would provide recipients with a competitive advantage over generators in RGGI states. While statutory or political barriers may hinder efforts to promote auctions and reinvestment in other states, RGGI states should use their experience and proven benefits to encourage best policy design in other states.

4. Conclusion

RGGI has proven to be an effective means of reducing carbon emissions from the electric sector, and states must now build on RGGI's success to take the next step toward achieving necessary emissions reductions. Since the program launched, RGGI has helped to slash CO₂ emissions while driving economic growth. And yet, neither RGGI's tremendous success to date nor the program's appeal to states across the country should suggest that RGGI is a finished product. RGGI can and should play a central role in achieving state-level climate commitments through an ambitious cap, adjustment for banked allowances, and a strengthened CCR. By committing to strengthening the program for the future the RGGI states can lead by example while encouraging other states to adopt effective solutions to the threat of climate change.

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³¹ See:

http://www.analysisgroup.com/uploadedfiles/content/insights/publishing/analysis group rggi report july 2015.pdf