

The Regional Greenhouse Gas Initiative: A Fact Sheet

The Regional Greenhouse Gas Initiative (RGGI) is the nation's first multi-state cap-and-trade program for carbon emissions. In 2016, the RGGI states will begin their third program review and consider the future of the program beyond 2020.

I. What is RGGI?

- The Regional Greenhouse Gas Initiative (RGGI) is the nation's first multi-state, market-based program designed to reduce emissions of **carbon dioxide (CO₂)** in the **electric power sector**. Based in the Northeast and Mid-Atlantic, RGGI is a **cap-and-trade system** that applies to CO₂ emissions from electric power plants that generate 25 megawatts of electricity or more. The program formally **began in 2009**, was strengthened after a comprehensive review in 2012, and currently features a tightening emissions cap through 2020.
- *Which states participate in RGGI?*
 - **Nine states** currently participate in RGGI: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. (New Jersey participated in the program through 2011, before exiting at the end of that year.)
 - RGGI states account for 1/6 of the U.S. population and 1/5 of the nation's GDP. Most of the nine states' electricity is derived from fossil fuels.

II. How RGGI Works

- *The Basics:*
 - The RGGI program sets an **annual cap** for the region's aggregate CO₂ emissions from the electric power sector. The cap declines 2.5% per year from 2015-2020. Pollution permits (called '**allowances**') are regularly auctioned to covered entities (power plants). One allowance is equivalent to one ton of CO₂.
 - **Allowance auctions** are administered quarterly by RGGI, Inc., a nonprofit established to run the program. At the auctions, participating power plant owners submit confidential bids, which then inform the price of allowances for that auction. Controls are put in place to ensure the auctions run effectively,ⁱ and participants are permitted to trade or purchase allowances in a secondary market.

What is a cap-and-trade system?

A cap-and-trade system is a type of carbon price that is used to reduce GHG emissions. A market-based mechanism, this system provides a financial incentive for electricity providers to dispatch cleaner, lower-emission sources of energy. Cap-and-trade systems place an overall limit (cap) on GHG emissions from an emission source(s), which is partitioned into emission allowances that may be bought and traded.

- The RGGI program is set up in three-year **compliance periods**. At the end of each period, covered entities must submit one allowance for each ton of CO₂ generated during the three-year period. Participants may bank allowances for future use and may meet up to 3.3% of their compliance obligation through the purchase of offsets.
- **Proceeds** generated from auction are disbursed to states in accordance with RGGI's state budget allocation. While proceeds may be used to fund various state policy objectives, at least 25% of proceeds must be used for "consumer benefit or strategic energy purpose."
- *How are auction proceeds being used?*
 - RGGI accumulated more than \$2.5 billion in revenue over the first 32 auctions. From 2008-2013, 67% of the proceeds were used for efficiency, GHG abatement, renewable energy, or electricity bill assistance. Proceeds can also be used to meet other state objectives, such as addressing budget challenges or funding job-training programs.
 - Studies have shown that the most cost-effective investment of RGGI dollars is investment in energy efficiency programs. In 2008, RGGI states invested just \$575 million in energy efficiency programs; by 2014, the RGGI states were investing \$1.74 billion annually.
 - Local reinvestment of RGGI dollars in energy efficiency and renewable energy programs reduce electricity demand, thereby helping to reduce the impact of increased electricity prices resulting from the costs of RGGI allowances.

III. What are RGGI's Results?

- *Over three years (2012-2014), RGGI led to **\$1.3B in net economic benefits** across the region—similar to results of the program's first three years of operation (\$1.6B). Since the program began, RGGI states have experienced a net gain in economic growth, increased jobs, long-run electricity cost reductions, and decreased emissions.ⁱⁱ*
- *Success of GHG reductions*: Across the RGGI region, **CO₂ emissions have dropped over 35% since the program's launch in 2009**—thanks in large part to fuel-switching (away from the dirtiest power plants), improved energy efficiency, and growing renewable energy output.
- *Decoupling of emissions from economic growth*: **RGGI states have been able to successfully reduce emissions while growing the region's economy**. Over the period 2005-2013, RGGI states experienced a reduction of over 40% in power-sector CO₂ emissions while the regional economy grew by 8%.ⁱⁱⁱ Over 2009-2014 specifically, RGGI emissions dropped 35% (compared to 12% in non-RGGI states), while RGGI state economies grew 21.2% (compared to 18.2%).
- *Economic impact*: Studies show the RGGI program has had no negative impact on the region's economic growth—in fact, over 2012-2014, the program has contributed **\$31 in value-add per capita** across the region. This figure does not include the long-term benefits of reducing climate change, which would only add to the net economic benefit.
- *Electricity prices*: Across the region, **electricity prices have decreased on average 2%** since RGGI took effect in 2009. (The only states that have experienced any

significant price increase have been Vermont and New Hampshire, which is largely due to buying more power through long-term contracts—and thus insulation from wholesale price volatility.) The RGGI program also has not adversely affected power system reliability in the participating states.

- *Health impacts*: RGGI creates incentives for cleaner energy generation, going beyond reductions of just CO₂. As a result, emissions of SO₂, NO_x, and mercury have decreased significantly—resulting in nearly **\$11B in health savings from SO₂ and NO_x reductions** alone from 2009-2014.
- *Implications for Clean Power Plan*: RGGI states are well positioned to meet the EPA Clean Power Plan’s carbon reduction requirements. As the CPP provides flexibility for multi-state compliance planning and the use of a mass-based program with tradable allowances, the RGGI program presents an economically favorable model for other states looking to comply with the Clean Power Plan.

IV. What is the 2016 Program Review?

- ***What’s at stake***: In 2016, RGGI states will consider the program’s future for 2021-2030. As currently written, the RGGI emissions cap will decrease 2.5% per year until 2020—after which the cap will hold at 2020 levels (78.2 million tons) unless further action is taken.
- ***Post-2020 Design Options (Scenarios)***:
 - ***“5% Scenario”***: Some advocates are calling on RGGI states to consider a more ambitious 5% annual reduction scenario. Studies show this is consistent with the power sector’s actual rate of CO₂ reductions: according to NRDC analyses, RGGI emissions have fallen 3.8 million tons of CO₂ per year since 2009; a 5% Scenario over 2021-2030 would reduce the cap 3.9 million tons per year—nearly consistent with current emission reduction rates.
 - ***“2.5% Scenario”***: RGGI states could maintain the current 2.5% reduction in the cap annually. In practice, this scenario would require a rate of reduction that is less than what the power sector has achieved so far.
 - ***EPA Clean Power Plan Scenario***: To achieve minimum compliance with the CPP, RGGI states could theoretically stop decreasing the cap after 2020. However, given RGGI’s success with an annually tightened cap, this would be the least ambitious option.
- ***At stake: Fate of state GHG targets***: Nearly all RGGI states have set 2030 or 2050 climate change goals. Given the incremental and slow progress offered by transportation sector-related emissions (at least through 2030), the bulk of states’ overall emissions reductions will need to come from the electric sector—highlighting the importance of RGGI ambition.
 - For example, this May, the MA Supreme Court ruled that, in order to comply with Massachusetts’ 2008 Global Warming Solutions Act, the state must do more to decrease emissions. Membership in RGGI alone—with RGGI’s current rate of ambition—will not be enough to meet the state’s 2050 emissions reduction goal.

V. What are the counterarguments to RGGI?

- *“New England energy prices rank among the highest in the nation.”* New England states are burdened with the widespread use of natural gas and oil for heat during the winter. This places significant pressure on these sources and increases energy prices. Despite this challenge, the RGGI program has saved electricity consumers \$341M, with electricity prices declining 2% on average since RGGI took effect. Furthermore, decreasing electricity demand through investment in efficiency and renewable energy can help to reduce electricity prices well into the future.
- *“New Jersey said it exited RGGI because the program was not effective in reducing emissions”.* As studies have shown, RGGI has been effective in reducing GHG emissions, even below the cap’s allowance. Unlike states that use much of their proceeds to fund efficiency projects to further reduce emissions, New Jersey used much of its RGGI proceeds on state debt. NJ also exited RGGI before cap requirements were tightened after the 2012 program review.
- *“Dirtier fuels are just being replaced by natural gas—and RGGI doesn’t account for methane from natural gas.”* It is true that natural gas-fired power plants are increasingly replacing higher carbon-intensive coal- and oil-fired power plants due to the lower costs of natural gas. However, it is important to note that natural gas generators must still purchase allowances, which renders natural gas less competitive than non-emitting power sources.
- *“You don’t have to raise the cap to meet CPP compliance.”* While this is true, RGGI’s success demonstrates that the power sector can efficiently reduce emissions at no cost to the economy. Therefore, why wouldn’t you strive for more ambition? In addition, most of the RGGI states have set much more ambitious 2030 or 2050 climate targets for themselves; a lower cap will certainly not help the states achieve these targets.

ⁱ Controls include a reserve price (floor price) and a ‘cost containment reserve’ (CCR), which allows additional allowances to be released if a certain price threshold is met. RGGI’s floor price holds at \$2.05 per allowance, which acts like a carbon fee if not all allowances are purchased at a given auction. The cost containment reserve is set at \$8 per ton in 2016 and \$10 per ton in 2017, increasing 2.5% each year thereafter.

ⁱⁱ See Analysis Group. (2015). *The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States: Review of RGGI’s Second Three-Year Compliance Period (2012-2014)*. Retrieved from <http://bit.ly/106byyc>.

ⁱⁱⁱ RGGI, Inc. (2015). *Investment of RGGI Proceeds Through 2013*. Retrieved from <http://bit.ly/1Uml3FJ>.