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Budget Briefing

The Regional Greenhouse Gas Initiative

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The clearing price for emission allowances in the most recent Regional Greenhouse Gas Initiative auction was $5.62 per ton. At those emissions levels and at that clearing price, Pennsylvania would have received approximately $400 million in revenue from auctioning its allotment of RGGI emissions allowances in 2018.

As climate change receives more public attention from policy makers, many states and countries have experimented with policies to reduce carbon emissions and increase the use of alternative or renewable energy. The Alternative Energy Portfolio Standards Act (Act 213 of 2004) and Act 129 of 2008 (which created energy efficiency and conservation targets) are just two examples in Pennsylvania; voluntary caps on emissions, such as those agreed to under the Paris Agreement of 2008, are another. However, the most potentially important policy lever is direct carbon pricing.

CARBON PRICING

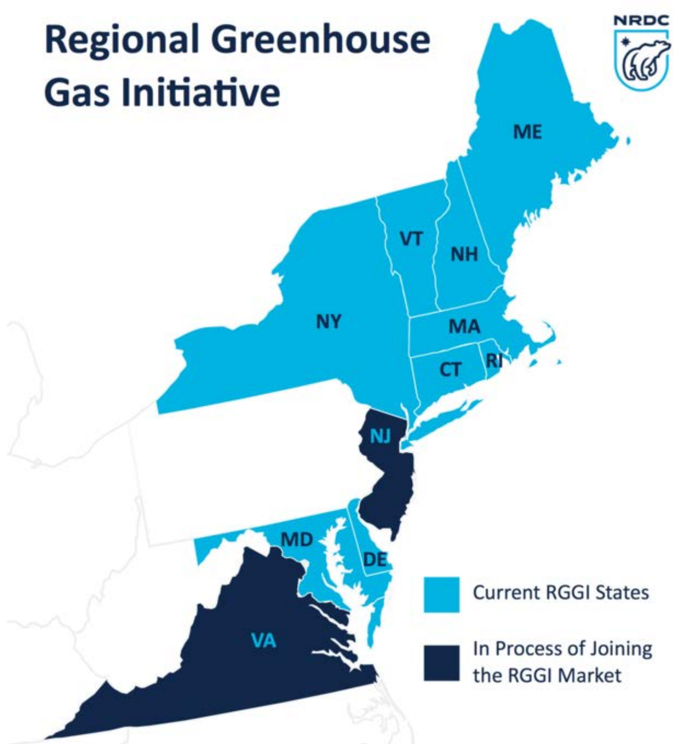
There are two predominant approaches to carbon pricing schemes:

A **carbon fee** or **carbon tax** is a set monetary price per ton of CO_2 emissions and it is charged to the entity that emitted the carbon, such as a factory or electric power plant. The price per ton of emissions would generally rise over time, making it increasingly expensive to burn fossil fuels and reducing their use in favor of alternative energy sources.

A **cap and trade system** sets a total limit on emissions for a particular region or industry. To emit a ton of CO_2, an entity subject to the system must obtain an allowance (sometimes called a credit) either in an initial auction or through purchase on an open market. The total number of allowances across the cap and trade system generally declines over time, which raises the cost of each allowance and reduces the total amount of emissions.

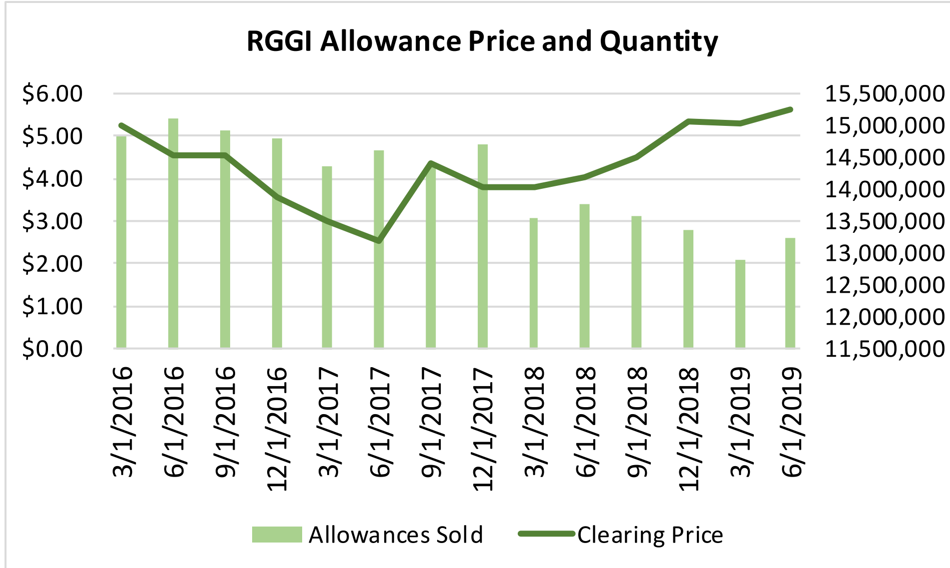
RGGI

The **Regional Greenhouse Gas Initiative (RGGI)** is a multi-state carbon cap and trade organization currently comprised of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont (Virginia and New Jersey are in the process of joining). These states have created a common cap and trade market specifically for carbon emissions from the electric generation sector. Each power plant with a capacity of 25 megawatts (MW) or greater which generates electricity through fossil fuel combustion is subject to RGGI limits and must obtain allowances for each ton of carbon emitted. However, the number of available allowances declines each year, necessitating an overall decline in electric power sector emissions over time.



In each compliance year, the states within RGGI issue a set number of allowances based on the total CO_2 emissions from their electric generation sectors. Each state then auctions those allowances to covered emitters on a quarterly basis. At the end of each year, covered power plants must retire enough credits to match their total carbon emissions for that year. In addition to purchasing allowances in the primary auctions, emitters can buy and sell allowances to one another through secondary market transactions.

The proceeds from the primary auctions go to each respective state and are primarily used for environmental purposes, while the secondary market purchases are bilateral transactions between two covered plants.



The cost of purchasing allowances is passed on to energy consumers. However, this increase in energy prices is restricted to fossil fuel power plants. As a result, carbon-free energy sources become more competitive since they have no RGGI compliance costs. As the number of available allowances falls and the price per allowance rises, the incentive to generate a larger share of electricity from carbon-free sources will grow.

PENNSYLVANIA JOINING RGGI

Pennsylvania's electric generation sector produced nearly 74 million tons of carbon in 2018, which was much higher than most neighboring states because the commonwealth has a much larger generation sector and because its generation sector is much more carbon intensive.

The clearing price for emission allowances in the most recent RGGI auction was $5.62 per ton. At those emissions levels and at that clearing price, Pennsylvania would have received approximately $400 million in revenue from auctioning its allotment of RGGI emissions allowances in 2018.

Joining RGGI would incentivize investment in new carbon-free energy – like wind and solar – while also improving the competitiveness of Pennsylvania's existing nuclear energy fleet, which currently receives no monetary benefit despite the fact that it represents the largest source of emissions-free energy in the state.

The proceeds from emissions credits would be available to make important investments in infrastructure, energy efficiency and conservation measure, and additional renewable energy.