USA - Regional Greenhouse Gas Initiative (RGGI)

General Information

Summary

**Status:** ETS in force

**Jurisdictions:** Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont

RGGI is the first mandatory GHG ETS in the United States and covers emissions from the power sector. The system started operating in 2009 with 10 states. Its development was based on the '2005 RGGI Memorandum of Understanding' (MoU) and the '2006 RGGI Model Rule'. Through statutes or regulations based on the Model Rule, each state then established individual CO2 budget trading programs. New Jersey withdrew from the program at the end of 2011, but rejoined RGGI in January 2020.

RGGI has gone through two review processes to date, which resulted in updating of the Model Rule and enshrined tighter caps and adjustments to system design. Between 2021 and 2030, the RGGI cap will reduce by 30% compared to 2020. Furthermore, an emissions containment reserve (ECR) will be added in 2021. The ECR is an automatic adjustment mechanism that will adjust the cap downward in the face of lower-than-expected costs.

Year in Review

After the finalization of the '2017 Model Rule', the proposed post-2020 cap-and-trade regulations must be adopted by each RGGI state according to its own regulatory processes.

New Jersey rejoined RGGI as of January 2020 after final legislation for establishing an ETS in the state and reentering RGGI was adopted 17 June 2019. New Jersey’s first auction as a rejoined member was in March 2020.

Virginia is also in the process of establishing an ETS and linking it to the RGGI program. The state started regulatory processes in 2018 and adopted final regulations in April 2019 which entered into force in June 2019. In addition, in February 2020, Virginia adopted legislation for ETS implementation and linkage to RGGI that is now planned for the end of 2020 (see factsheet on Virginia).

Pennsylvania is considering an ETS and linking to RGGI. In October 2019, Pennsylvania Governor Tom Wolf issued an executive order for the state to draft ETS legislation for RGGI linkage. A final proposal could be presented later in 2021, while the earliest start date for Pennsylvania’s ETS and its linkage to RGGI would be 2022 (see factsheet on Pennsylvania).

Overall GHG emissions (excluding LULUCF)

**Emissions:** 463.6 MtCO2e (2014)

Overall GHG emissions by sector

<table>
<thead>
<tr>
<th>Sector Name</th>
<th>MtCO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>223.5</td>
</tr>
<tr>
<td>Transportation</td>
<td>174.6</td>
</tr>
<tr>
<td>Industrial Processes</td>
<td>25.6</td>
</tr>
<tr>
<td>Agriculture</td>
<td>9.8</td>
</tr>
<tr>
<td>Waste</td>
<td>30</td>
</tr>
<tr>
<td>Bunker Fuels</td>
<td>0.1</td>
</tr>
</tbody>
</table>
### Overall GHG reduction target

**BY 2020:** By adopting the ‘2013 Model Rule’ RGGI states committed to a regional cap of more than 50% reduction of CO₂ emissions from electricity generation from 2005 CO₂ emissions.

**BY 2030:** By adopting the ‘2017 Model Rule’ RGGI states have committed to implement a reduction of 30% compared to the 2020 CO₂ emissions cap.

Note: The participating states have their own emission targets; economy-wide targets are not defined at the level of RGGI.

### Carbon Price

**Current Allowance Price (per t/CO₂e):** USD 5.98 (average price in 2019; updated prices available here)

### ETS Size

| **Emissions covered by the ETS** | 0.18 |
| **GHG covered** | CO₂ |
| **Sectors covered and thresholds** | Fossil Fuel Electric Generating Units |
| **INCLUSION THRESHOLDS:** | Capacity equal to or greater than 25 MW. |
| **Point of regulation** | Downstream (at installation level) |
| **Number of liable entities** | 168 sources (December 2019) |
| **No information available yet.** |
| **Cap** | The RGGI cap was 188 million short tons CO₂ per year in the 2009-2011 period. It was then set to 165 million short tons CO₂ per year for the 2012-2014 period, with a 2.5% annual reduction factor from 2015 through 2018, totaling a 10% reduction between 2015 and 2018. However, by 2012, emissions under RGGI were more than 40% below the cap. The states thus tightened the cap to 91 million short tons in 2014. The revised regulations extended the 2.5% annual reduction factor through 2020, with a 2020 cap of approximately 96 million short tons including the 18 million short tons cap of new RGGI entrant New Jersey. The RGGI states adjusted the caps between 2014 and 2020 to account for banked CO₂ allowances accumulated in the first and second control periods. The adjusted cap for 2020 comprises 74 million short tons. The reduction factor between 2021 and 2030 as set out in the ‘2017 Model Rule’ is about 3% of the 2020 cap, resulting in a 2030 regional cap (unadjusted) of about 68 million short tons. |

### Phases & Allocation

| **Trading period** |
| **RGGI is structured around “control” (or compliance) periods. A cap trajectory until 2030 has been set (see “Cap” above).** |
| **FIRST CONTROL PERIOD:** 2009-2011 |
| **SECOND CONTROL PERIOD:** 2012-2014 |
| **THIRD CONTROL PERIOD:** 2015-2017 |
| **FOURTH CONTROL PERIOD:** 2018-2020 |
| **FIFTH CONTROL PERIOD:** 2021-2023 |

Since the third control period, RGGI operates with interim control periods. Regulated entities must cover 50% of their emissions with allowances in each of the first two years of a control period. They must cover 100% of the remaining emissions at the end of the three-year control period.
### Allocation

CO2 allowances issued by each RGGI state are distributed through quarterly regional CO2 allowance auctions. Auctions are open to all parties with financial security, with a maximum bid of 25% of auctioned allowances per quarterly auction.

### Flexibility

#### Banking and borrowing

Banking of allowances is allowed without restrictions, but regulations include adjustments to the cap to address the aggregate bank by reducing the amount of allowances available for auctions in future years by the amount of allowances not used for compliance in previous control periods.

Borrowing is not allowed.

#### Offsets and credits

**QUANTITATIVE LIMIT:** 3.3% of an entity’s liability may be covered with offsets. This share will remain the same between 2021 and 2030.

**QUALITATIVE LIMIT:** Currently the program allows offset allowances from five offset types located in RGGI states:

1. Landfill methane capture and destruction;
2. Sequestration of carbon due to reforestation, improved forest management, or avoided conversion;
3. Avoidance of methane emissions from agricultural manure management operations;
4. Reduction or avoidance of CO2 emissions from natural gas, oil, or propane end-use combustion due to end-use energy efficiency; and
5. Reduction in SF6 emissions.

According to the Model Rule, offset Protocols 4 and 5 will be discontinued from 2021. Some states have discontinued other protocols, but all states accept offset allowances issued by any participating state. To date, only one offset project (on landfill methane capture and destruction) has been approved under RGGI.

#### Market Stability Provisions

**Auction Price Floor:** USD 2.3 per short ton in 2020, increasing by 2.5% per year (to reflect inflation).

**Reserves:** Since 2014, RGGI has operated with a cost containment reserve (CCR), where allowances are released to the market when certain trigger prices are reached. Trigger price: USD 10.77 in 2020 (having increased at 2.5% annually from USD 10 in 2017).

In 2021, the CCR trigger price will be set at USD 13 and will increase by 7% compared to the previous year thereafter.

In addition, an emissions containment reserve (ECR) will be added in 2021. Under the ECR, allowances will be withheld from circulation (from auction) if certain trigger prices are reached, up to an annual withholding limit of 10% of the budgets of participating states. Allowances withheld will not be re-offered for sale, effectively adjusting the cap downward. In 2021, this trigger price will be set at USD 6, increasing by 7% compared to the previous year thereafter.

### Compliance

#### Compliance Period

Three years (see “Phases and Allocation” above)

#### Monitoring, Reporting, Verification (MRV)

**REPORTING FREQUENCY:** Compliance is evaluated at the end of each three-year control period. From the third control period, covered entities have been required to hold allowances equal to 50% of their emissions during each interim control period (the first two calendar years of each control period).

**FRAMEWORK:** Emissions data for emitters are recorded in the United States Environmental Protection Agency’s (US EPA) Clean Air Markets Division database in accordance with state CO2 Budget Trading Program regulations and US EPA regulations. Provisions are based on...
the US EPA monitoring provisions. Data are then automatically transferred to the electronic platform of the RGGI CO2 Allowance Tracking System, which is publicly available.

Enforcement

In case of excess emissions, compliance allowances for three times the amount of excess emissions have to be surrendered in future periods. Furthermore, covered entities may also be subject to specific penalties imposed by the RGGI state where the entity is located.

Linking

Links with other Systems

New Jersey will rejoin RGGI as of 2020. Virginia plans to link to RGGI in late 2020. Pennsylvania plans to link to RGGI as of 2022.

Other Information

Institutions involved

Each RGGI state has its own statutory and/or regulatory authority; RGGI Inc. (non-profit cooperative supporting RGGI’s development and implementation)

Evaluation / ETS review

The RGGI participating states periodically review the ETS program in order to consider program successes, impacts, and design elements. The first program review process (known as the 2012 Program Review) was completed in early 2013. A second review process was completed in 2017, resulting in the ‘2017 Model Rule.’ Program reviews were accompanied by stakeholder meetings to facilitate stakeholder engagement and the submission of comments from interested parties. The next program review is scheduled to begin no later than 2021.

Revenue

Since beginning of program: USD 3.4 billion

Collected in 2019: USD 284 million

Revenues are collected from the quarterly auctions. They are returned to the RGGI states and have been primarily invested in consumer benefit programs: energy efficiency, renewable energy, direct energy bill assistance, and other greenhouse gas reduction programs.

Implementing Legislation

2017 RGGI Model Rule
2017 RGGI Model Rule Updates (Summary)
RGGI States’ Statutes & Regulations
RGGI Program design
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