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January 15, 2023

Representative Michael Marcotte, Chair
House Committee on Commerce and Economic Development

Representative Amy Sheldon, Chair
House Committee on Environment and Energy

Senator Ann Cummings, Chair
Senate Committee on Finance

Senator Christopher Bray, Chair
Senate Committee on Natural Resources and Energy

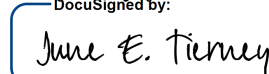
Re: 2022 Regional Greenhouse Gas Initiative Annual Report

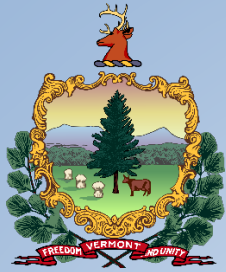
Dear Senators and Representatives:

I am pleased to submit the 2022 Regional Greenhouse Gas Initiative Annual Report pursuant to 30 V.S.A. §255(e). The report, developed in consultation with the Agency of Natural Resources and the Public Utility Commission, includes information on Vermont's participation in the Regional Greenhouse Gas Initiative (RGGI), a market-based program intended to reduce greenhouse gas emissions by capping and reducing CO₂ emissions from the power sector. This report details the four auctions that take place each year and the revenue generated from the sale of CO₂ allowances.

If you have any questions or concerns upon reading this report, please do not hesitate to contact me or the Director of Efficiency and Energy Resources, Melissa Bailey at Melissa.Bailey@vermont.gov.

Very truly yours,

DocuSigned by:

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June E. Tierney
Commissioner



A report detailing the implementation and operation of RGGI and the revenues collected and the expenditures made

2022 Regional Greenhouse Gas Initiative Annual Report

Pursuant to 30 V.S.A. § 255(e)

Department of Public Service

January 15, 2023

Report to the Legislature from the Department of Public Service

This Report was prepared pursuant to 30 V.S.A. § 255(e) which states:

“On or before January 15 of each year, commencing in 2007, the Department of Public Service in consultation with the Agency of Natural Resources and the Public Utility Commission shall provide to the House Committees on Commerce and Economic Development, on Energy and Technology, and on Natural Resources, Fish, and Wildlife and the Senate Committees on Finance and on Natural Resources and Energy a report detailing the implementation and operation of RGGI and the revenues collected and the expenditures made under this section, together with recommended principles to be followed in the allocation of funds.”

Background & Overview of the Regional Greenhouse Gas Initiative

The Regional Greenhouse Gas Initiative (RGGI) is a cooperative effort by twelve Northeastern and Mid-Atlantic states (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania^a, Rhode Island, Vermont, and Virginia) to reduce carbon dioxide emissions – a greenhouse gas that contributes to global climate change – from electricity generation. Central to this initiative is the implementation of a multi-state cap-and-trade program with a market-based emissions trading system. The RGGI program requires fossil fuel fired electric generating units with a nameplate capacity of 25 MW or larger (15MW or larger in NY) to purchase and retire allowances equal to the amount of CO₂ emitted by the unit. Regionally, RGGI-affected units account for approximately 95% of the CO₂ emissions from in-region fossil fuel generation. The RGGI “CO₂ Emissions from Electricity Generation and Imports in the Regional Greenhouse Gas Initiative: 2019 Monitoring Report^b” shows that in 2019, CO₂ emissions from RGGI affected units accounted for 94.7% of emissions from all RGGI region fossil generation. Vermont committed to participate in RGGI in 2007 when then Governor Douglas signed the RGGI Memorandum of Understanding (MOU) along with the governors of the other participating states. The Vermont Legislature then enacted statutory provisions to implement the RGGI program in Vermont. Both 30 V.S.A. § 255 and the RGGI MOU directed the Public Utility Commission (PUC) and the Agency of Natural Resources (ANR) to participate in the RGGI program.

The RGGI states individually decide how to distribute CO₂ allowances, with most of the allowances sold through the quarterly centralized auctions. Vermont sells nearly all its allotment of allowances through the auction and allocates the net proceeds from the sale of allowances to fund Vermont programs that promote thermal energy and process fuels efficiency services. Proceeds from the sale of allowances are deposited into the Electric Efficiency Fund pursuant to 30 V.S.A. § 209(e)(1)(B).

^a As of July 25, 2022 the Commonwealth Court of Pennsylvania has blocked Pennsylvania’s participation in RGGI.

^b https://www.rggi.org/sites/default/files/Uploads/Electricity-Monitoring-Reports/2019_Elec_Monitoring_Report.pdf

Auction Results for 2022

CO₂ Allowance Auction Results - All Participating States, 2022

Auction Number	Auction Format	Quantity Offered	Quantity Sold	Clearing Price
55	Sealed Bid - Uniform Price	21,761,269	21,761,269	\$13.50
56	Sealed Bid - Uniform Price	22,280,473	22,280,473	\$13.90
57	Sealed Bid - Uniform Price	22,404,023	22,404,023	\$13.45
58	Sealed Bid - Uniform Price	22,233,203	22,233,203	\$12.99
Total				\$13.46^[1]

^[1] Weighted Average Price

CO₂ Allowance Auction Results - Vermont, 2022^c

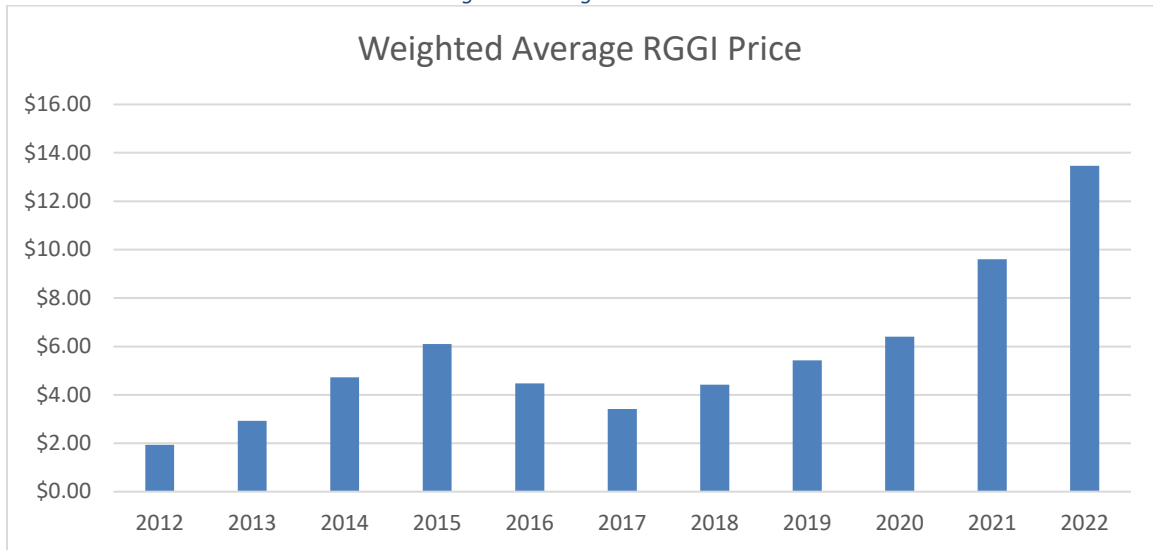
Auction Number	Quantity Sold	Clearing Price	Total Proceeds
55	108,424	\$13.50	\$1,463,724
56	108,423	\$13.90	\$1,507,080
57	108,423	\$13.45	\$1,458,289
58	108,423	\$12.99	\$1,408,415
Total		\$13.46^[1]	\$5,837,508

^[1] Weighted Average Price

In sum, Vermont participated in four market-based auctions for CO₂ allowances in 2022 and sold over 430,000 allowances for a total of more than \$5.83 million.

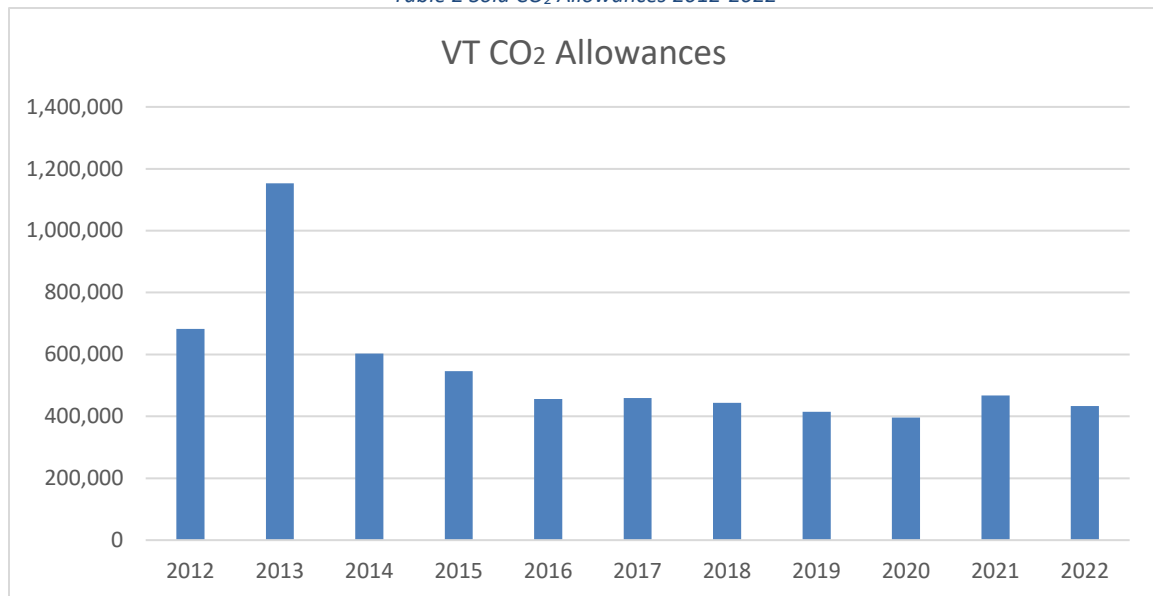
^c Detailed auction results <https://www.rggi.org/Auctions/Auction-Results/Prices-Volumes>

Table 1 Weighted Average RGGI Price 2012-2022



The weighted average price of the allowances in 2021 was \$9.60 and \$13.46 in 2022. This resulted in a \$1,349,337 increase in gross revenue from 2021 to 2022.

Table 2 Sold CO₂ Allowances 2012-2022



2022 represents the second of three years of the fifth control period.

The current RGGI program design includes both a Cost Containment Reserve (CCR) and Emissions Containment Reserve (ECR). The CCR consists of a quantity of allowances (10% of a state's annual base allowance budget) in addition to the cap which are held in reserve. These are made available during an auction if the auction clearing price exceeds a predefined price, indicating that emission reduction costs are higher than were projected. The ECR is a quantity of

allowances (10% of a state's annual base budget) that can be withheld from an auction if the auction clearing price is lower than a predefined price, indicating that emission reduction costs are lower than projected.

The CCR trigger price for 2022 was \$13.91. No CCR allowances were sold in 2022. The CCR trigger price increases to \$14.88 in 2023. The ECR trigger price for 2022 was \$6.42. No ECR allowances were withheld in 2022. The ECR trigger price increases to \$6.87 in 2023

Disbursement of Vermont 2022 RGGI Proceeds

Total Proceeds	\$5,837,508
Administrative Costs	\$20,021.72 ^d
Trustee Costs	\$2,000
<hr/>	
Net Proceeds	\$5,815,486

Pursuant to statute and the PUC’s January 10, 2019, Order^e, ANR and the Department of Public Service (“Department”) can request that appropriate and reasonable administrative costs associated with their administration of RGGI be paid from the auction proceeds. In addition, ANR and the Department may request funds to “stimulate or support investment in the development of innovative carbon emissions abatement technologies that have significant carbon reduction potential.”

To date, ANR has requested and received PUC approval for reimbursement for administrative costs directly related to RGGI participation, including staff time and travel, totaling \$20,021.72 from auctions 55 through 57. At the time this report was completed, no request had been made for reimbursement from auction 58; however, the Department anticipates that any request would likely be less than \$10,000 (based on prior requests) from ANR. The remaining balance of approximately \$5.8 million from the 2022 auctions will be deposited into the Thermal Energy and Process Fuels (TEPF) program funds within the Electric Efficiency Fund (EEF). No changes are recommended at this time regarding the allocation of funds.

Voluntary Renewable Set-aside Program

The PUC’s January 10, 2019, Order^f governs the Vermont voluntary renewable set-aside program for RGGI. The set-aside for voluntary renewable programs is available to programs offered by Vermont electric utilities and other qualifying entities that purchase and retire renewable energy credits (RECs) on behalf of Vermont customers. An applicant may submit a

^d Represents only administrative costs for auctions 55 through 57.

^e 2018 updates to the Regional Greenhouse Gas Initiative auction procedures for Vermont, Case No. 18-4145-INV, Order of 1/10/19. The PUC’s Order updated the State’s procedures for RGGI auctions consistent with RGGI’s 2017 Model Rule.

^f *Id.*

written request to the PUC to retire a specified number of CO₂ allowances in the voluntary purchase set-aside account.

The PUC approved the retirement of 7,299 RGGI CO₂ allowances in Vermont's set-aside account on behalf of 2021 voluntary renewable programs.[§]

Program Review and Participating States Updates

The nine states participating in RGGI during the last comprehensive program review completed that review in late 2017 and released a revised Model Rule in early 2018. The participating states have initiated a third comprehensive program review with a draft of a revised model rule planned for release in the fall of 2023.

Virginia began participating as the tenth RGGI member in the auctions in March 2021. The current Virginia administration has announced their intention to withdraw from the program at the end of the current control period in 2023. Litigation is expected that may affect both the schedule and outcome of that process. Pennsylvania has promulgated their regulation for RGGI participation [in March of 2022] but that is currently on-hold pending resolution of ongoing legal action within the state.

The continuing upward trend in auction clearing prices in 2022 has resulted in an overall increase in regional revenue and resultant revenue associated with Vermont's allowances. The electricity market in general, and the RGGI allowance market, has remained relatively stable through the COVID-19 pandemic, unlike other energy markets such as those for transportation fuels. The four auctions that took place in 2022 achieved the highest four clearing prices in the history of RGGI for the second year consecutively.

[§] See *Order Approving 2021 Approving RGGI Set-Aside Retirement, Case No. 22-2528-PET, Order of 9/12/22.*