AMENDMENTS TO
7 DE ADMIN. CODE 1147
CO_2 Budget Trading Program

Technical Support Document
Delaware Department of Natural Resources and Environmental Control
July 2026

THIS PAGE INTENTIONALLY LEFT BLANK

Acknowledgements

The Division of Air Quality wishes to acknowledge the individuals that assisted in the preparation of this document.

Angela Marconi, P.E.
Director
Division of Air Quality

Valerie Gray
Program Administrator
Division of Air Quality

Pamela Keeney
Environmental Program Manager II
Division of Air Quality

Yagna Shah
Engineer II
Division of Air Quality

Jennifer Childears
Office Manager
Division of Air Quality

Susan E. Love, AICP
Administrator
Division of Climate, Coastal and Energy

Jessica Quinn
Environmental Program Manager II
Division of Climate, Coastal and Energy

Table of Contents

List of Figures

List of Tables

List of Acronyms

C	Celsius
CCR	Cost Containment Reserve
CH_4	Methane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
DEC	Delaware Electric Cooperative
DEMEC	Delaware Electric Municipal Corporation
DNREC	Department of Natural Resources and Environmental Control
DPI	Disposable Personal Income
DPL	Delmarva Power
ECR	Emissions Containment Reserve
EPA	Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
GSP	Gross State Product
GWh	Giga Watt hour
GWP	Global Warming Potential
HFC	Hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
IPM®	Integrated Planning Model
IRA	Inflation Reduction Act
ISO	Independent System Operator
kWh	kilowatt hours
lbs.	pounds
LIHEAP	Low Income Heating Assistance Program
LULUCF	Land-use, Land-use Change, and Forestry
MOU	Memorandum Of Understanding
MMBTU	Million British Thermal Units
$MMTCO_2e$	Million Metric Tonnes CO_2 Equivalent
MW	Megawatts
MWh	Megawatt hours
NAS	National Academy of Sciences
NDC	National Determined Contribution
NF_3	Nitrogen Trifluoride
NOx	Nitrogen Oxides
N_2O	Nitrous Oxide
PFC	Perfluorocarbon

PJM	Pennsylvania, New Jersey, Maryland
RGGI	Regional Greenhouse Gas Initiative
SEU	Sustainable Energy Utility
SF_6	Sulfur Hexafluoride
SO_2	Sulfur Dioxide
U.S.	United States

1.0 Introduction

The Regional Greenhouse Gas Initiative (RGGI) is a cooperative effort of ten Northeast and Mid-Atlantic states to regulate and reduce carbon dioxide (CO_2) emissions from the power sector through a market-based program. Using a market-based program provides flexibility and choice to power generators while also serving to improve air quality and meet climate change goals.

Proceeds from this market-based program are reinvested by Participating States in energy efficiency, clean and renewable energy, direct bill assistance and other programs which help to save consumers money. These cost savings are derived from consumer savings on bills and from reducing total energy consumption and peak demand, moderating cost drivers in retail electricity rates. Additional information is provided in Section 8 – RGGI Auction Proceeds Investment.

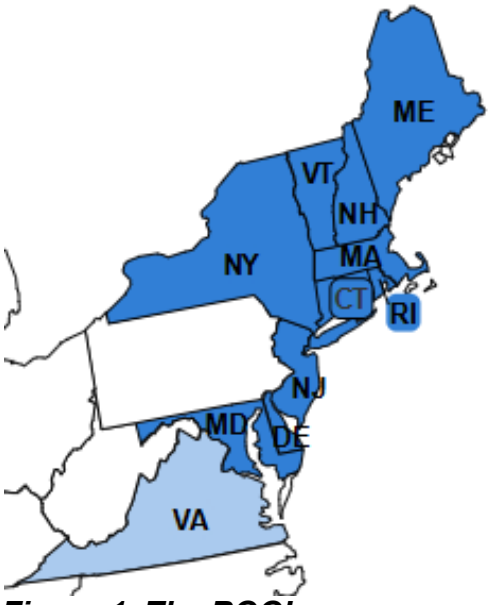


Figure 1. The RGGI Participating States.

(Source: www.rggi.org)

Delaware is an inaugural member of RGGI and has participated in the program since 2008. Delaware's RGGI program is implemented by 7 **DE Admin Code** 1147, CO_2 Budget Trading Program. Currently, eight power generators in Delaware are subject to the regulation.

In accordance with each state's independent legal authority, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont, and Virginia[1] (Participating States) each commit to propose statutory and/or regulatory approval revisions to their CO_2 Budget Trading Programs substantially consistent with the Model Rule.[2]

RGGI is composed of individual CO_2 Budget Trading Programs in each participating state. Through independent regulations, based on the RGGI Model Rule, each state's CO_2 Budget Trading Program limits emissions of CO_2 from electric power plants, issues CO_2 allowances and establishes participation in regional CO_2 allowance auctions. Delaware's 2008 adoption of 7 **DE Admin Code** 1147 established a compliance obligation on fossil fuel-fired electricity generating units.

RGGI is the first market-based, cap-and-invest regional initiative in the United States. Within the RGGI states, fossil-fuel-fired electric power generators with a nameplate capacity of 25 megawatts or greater ("regulated sources") are required to hold

[1] Virginia's participation is anticipated to resume in 2026.
[2] Updated RGGI Model Rule (2025) Retrieved from https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/Model_Rule_2025_07_03.pdf

allowances equal to their CO_2 emissions over a 3-year control period.

A CO_2 allowance represents a limited authorization to emit 1 short ton of CO_2 from a regulated source, as issued by a participating state. Regulated sources can use a CO_2 allowance issued by any participating state to demonstrate compliance in any state. They may acquire allowances by purchasing them at regional auctions, or through secondary markets.

Ten states became signatories to the RGGI Memorandum of Understanding (MOU) and proposed implementing a CO_2 constraint on fossil fuel-fired electricity generation and the development of a cap-and-trade program for the trading of CO_2 emissions allowances, a limited authorization to emit CO_2.[3] The following comprised the original ten signatory RGGI states: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. The first compliance period for each state's linked CO_2 Budget Trading Program began January 1, 2009. In 2011, New Jersey withdrew from the MOU, effective January 1, 2012.

New Jersey resumed participation in RGGI in 2020. Virginia participated from 2021 to 2023. Virginia is anticipated to resume participation in 2026.[4,5] Pennsylvania became a RGGI participating state in 2022. In November 2025, Governor Shapiro announced that Pennsylvania will no longer seek to be part of a regional climate agreement among states in the Northeast U.S.[6]

[3] The MOU was signed by the Governors of the Participating States and outlines the program in detail, including the framework for a Model Rule. The states made substantial revisions to the draft model rule in response to public comments. As a result, an amendment to the MOU was agreed to and signed by the heads of the energy regulatory and environmental agencies in each participating state. The MOU and amendments are available at http://www.rggi.org/agreement.htm.
[4] RGGI States Welcome Virginia. April 2026. Retrieved from https://www.rggi.org/sites/default/files/Uploads/Press-Releases/2026_04_29_VA_Welcome_Statement.pdf
[5] Governor Spanberger Signs Legislation to Address High Energy Costs & Rejoin RGGI. June 2026. Retrieved from June Releases.
[6] Governor Shapiro's Remarks as Prepared During 2025-26 Budget Signing Ceremony. (Nov. 2025). Retrieved from https://www.pa.gov/governor/newsroom/2025-press-releases/governor-shapiro-remarks-as-prepared-during-2025-26-budget-signi.

2.0 Program Reviews within Regional Process

2005 Memorandum of Understanding: The RGGI program was established in 2005 by the Participating States through an MOU, which outlined the program design elements. The Participating States agreed to develop and incorporate these design elements into the RGGI Model Rule, which would be used as a template for each state's individual regulation. The MOU also stipulated that the states would participate in routine review of program success, including public participation, and make changes periodically.

The 2005 program design elements included:

- The level of the regional CO_2 emissions cap,
- The amount of each state's portion of the regional cap,
- The schedule for reductions in the cap through the year 2018,
- A three-year compliance period for electricity generation facilities,
- Provisions for offsets (reductions in greenhouse gases from sources outside the electricity generating sector),
- Safety valve price triggers that would:
    - Expand the percentage of offset allowances that could be used to demonstrate compliance,
    - Extend the compliance period from 3 to 4 years,
    - Allow the use of international offsets,
- Allocation of at least 25% of allowances for consumer benefit or strategic energy purposes,
- Provisions for the creation of Early Reduction Credits, and
- Provisions for the banking of allowances.

First Program Review: Beginning in 2010, as called for in the original RGGI MOU, the Participating States conducted the First Program Review of the CO_2 Budget Trading Programs. The First Program Review included several components, including auction prices, impacts to electricity generation outside of participating states, and compliance by regulated entities. A key component of this program review was also public feedback.

The effort was completed in 2012 and had two primary findings:

- There was an excess supply of allowances relative to actual emission levels in the region. There are a number of reasons, including low natural gas prices which have reduced the use of coal, increased use of renewable energy in place of fossil fuels, reduced electric demand due to energy efficiency measures, weather conditions, and economic activity levels.[7]

[7] The New York State Energy Research and Development Authority issued a draft white paper "The Relative Effects of Various Factors on RGGI Electricity Sector Emissions 2005-2009" which details the reasons for the significant difference between the emissions levels projected in 2005 when the original

- The initial cost control measures in the program, which were based upon expansion of the percentage of offset allowances allowed for compliance, were deemed to be ineffective at controlling costs in the event of price spikes.

Proposed amendments to the program based upon these findings were incorporated into an Updated Model Rule (released on February 7, 2013). This Model Rule guided each state as it followed its own statutory and/or regulatory procedures to propose updates to its CO2 Budget Trading Program. In December 2013,[8] Delaware amended 7 **DE Admin. Code** 1147 – CO_2 Budget Trading Program to reflect the program changes reflected in the updated Model Rule.

Second Program Review: In 2015, the Participating States began the second comprehensive review of the RGGI program, as called for in the Second Program Review's *Principles to Accompany Model Rule Amendments*[9] *and the Summary of Model Rule Updates.*[10] Similar to the First Program Review, the Participating States reviewed the program design elements that included auction design, size and structure of the regional CO_2 cap. The Participating States agreed to establish a regional CO_2 cap through 2030, modify the size and trigger prices for the Cost Containment Reserve (CCR), establish an Emissions Containment Reserve (ECR), and eliminate two of the existing offset categories, as outlined below and in the Updated Model Rule:

a. **Revised Regional Cap**: The Participating States specified a regional cap through 2030 which continues the downward trajectory of the existing cap. The lower regional CO_2 emissions cap aligned the cap more closely with current emissions trends.
   - A regional cap of 75,147,784 tons of CO_2 in 2021, which would decline by 2.275 million tons of CO_2 per year thereafter, resulting in a total 30% reduction in the regional cap from 2020 to 2030.
   - The Participating States would address the bank of allowances held by market participants with a third adjustment for banked allowances. The third adjustment was made over a 5-year period (2021-2025) based upon the size of the bank at the end of 2020.

b. **CCR**: The Participating States modified the size and the price triggers for the CCR. The CCR is a reserved quantity of allowances, in addition to the cap, that would only be available if defined allowance price triggers are exceeded.

---

program cap was set and actual emission levels experienced in the region. See, https://rggi.org/sites/default/files/Uploads/Design-Archive/2012-Review/2010-11-12/Retrospective_Analysis_Draft_White_Paper.pdf

[8] Delaware Register Volume 17 Issue 6. December 2013. Retrieved from Delaware Regulations - Regulation

[9] Principles to Accompany the Model Rule Amendments. (RGGI 2017). Retrieved from https://www.rggi.org/sites/default/files/Uploads/Program-Review/12-19-2017/Principles_Accompanying_Model_Rule.pdf

[10] Summary of Model Rule Updates. (RGGI 2017) Retrieved from 2026 https://www.rggi.org/sites/default/files/Uploads/Program-Review/12-19-2017/Summary_Model_Rule_Updates.pdf

- Beginning in 2021, allowances provided within the CCR were equal to 10% of the regional cap.
- The CCR trigger price was $13.00 in 2021 and rises at 7% per year, ensuring that the CCR will only trigger if emission reduction costs are higher than projected.

c. **ECR**: The Participating States established a new program design element, an ECR, which is a quantity of allowances that would be withheld from circulation to secure additional emission reductions if prices fall below established trigger prices.
   - The states implementing the ECR would withhold up to 10% of the allowances in their base budgets per year. At that time, Maine and New Hampshire did not intend to implement an ECR. Allowances withheld in this way would not be reoffered for sale.
   - The ECR trigger price was $6.00 in 2021, and rises at 7% per year, ensuring that the ECR would only trigger if emission reduction costs are lower than projected.

d. **Offsets**: The Participating States eliminated two offset categories, reduction in emissions of sulfur hexafluoride (SF_6) in the electricity power sector and end-use energy efficiency in the building sector, and update and retain the remaining three categories (landfill methane capture and destruction; sequestration of carbon due to reforestation, improved forest management, or avoided conversion; and avoided methane emissions from agricultural manure management operations) that some States may continue to implement. Any awarded offset allowances would remain fully fungible across the states.

e. **Minimum Reserve Price**: The Model Rule retained language to increase the minimum reserve price by 2.5 percent each year.

In December 2018,[11] Delaware amended **7 DE Admin. Code** 1147 – CO_2 Budget Trading Program to reflect the Second Program Review changes reflected in the updated Model Rule.

Third Program Review: As called for in the Second Program Review's *Principles to Accompany Model Rule Amendments*, the Participating States conducted a third program review of the CO_2 Budget Trading Program – Third Program Review.[12] The purpose of this review was to strengthen the regional CO_2 emissions cap and establish new mechanisms to consider design elements, impacts, and potential changes to the CO_2 budget trading programs.

[11] Delaware Register, Volume 22 Issue 6. December 2018. Retrieved from Delaware Regulations - Regulation
[12] Ibid.

> "After consideration of stakeholder feedback and technical modeling and analysis, the states have agreed to strengthen their regional CO_2 through 2037, starting in 2027, and establish new mechanisms to protect energy affordability. These updates will ensure the longstanding bipartisan initiative's continued success in promoting clean air, health and economic benefits across the region."

The Third Program Review was a rigorous and comprehensive evaluation, supported by an extensive regional stakeholder process that engaged the regulated community, environmental nonprofits, consumer and industry advocates, and other interested stakeholders. The Participating States have been working with program review stakeholders since 2021, convening 6 stakeholder webinars.[13]

The program review has sought to ensure RGGI's continued success – effectively reducing CO_2 emissions while providing benefits to consumers and the region.

As announced on July 3, 2025, the proposed amendments to the program have been incorporated in an Updated Model Rule[14] which guides each of the Participating States as it follows its own statutory and/or regulatory procedures to propose updates to their individual state CO_2 Budget Trading Program regulations. Each state committed to adopting its component of the regional program changes as soon as practical, to be effective on January 1, 2027.

The updates are designed to:

- Provide stability and certainty to market participants, including power producers who purchase allowances to match their emissions and developers of new electricity generation resources.
- Ensure access to sufficient RGGI allowances to meet expected energy demand and bolster price protection for consumers. RGGI states will continue to invest the proceeds from those allowances into programs that lower electricity bills and provide economic benefits to local communities.
- Confirm states' long-term commitments to energy affordability, public health, and the environment, maintaining an economic climate in which innovative companies and the region's workforce thrive.

2025 Updated Model Rule: The updated Model Rule was developed through careful consideration of technical analysis and multiple rounds of input from a wide range of stakeholders across the region. Stakeholder comments received during the Third Program Review are posted on the RGGI.org website. The Model Rule updates are summarized below.

- **Updated Regional CO_2 Allowance Cap Trajectory**: The RGGI states will implement an updated regional cap trajectory that will provide up to 91% in

[13] Program Review Meeting Schedule. https://www.rggi.org/program-overview-and-design/program-review
[14] The updated Model Rule to reflect the 2025 program recommendations. July 2025. Retrieved from https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/Model_Rule_2025_07_03.pdf

additional cap reduction by the year 2037, relative to the 2025 cap. The updated regional cap trajectory will take effect in 2027 and be set to decrease by approximately 11% annually, relative to the 2025 cap. This trajectory will continue to 2033. Then, beginning in 2034, the regional cap trajectory will change to a more gradual decrease of approximately 3% annually, relative to the 2025 cap. This regional cap trajectory will be set to continue to 2037. Setting the regional cap beyond 2037 will be addressed at the next RGGI Program Review, to begin no later than 2028. This updated regional cap will help the RGGI states achieve ambitious emissions reductions quickly while maintaining affordable electricity prices and allowance availability for necessary emissions through 2037.

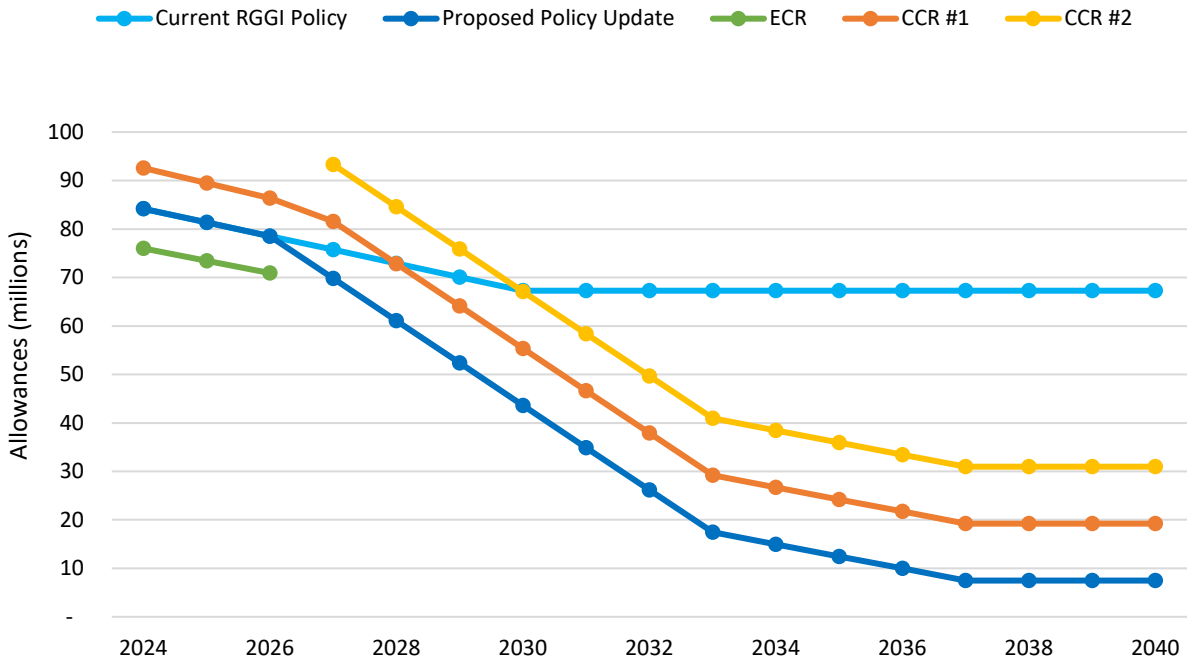


Figure 2. Updated Regional CO2 Cap Trajectory (2027-2040)

Table 1: Summary of RGGI Regional Allowance Cap Updates and CCR Trigger Prices

Year	Allowance Cap	Minimum Reserve Price	CCR Trigger Price		CCR Volume	
			Tier 1	Tier 2	Tier 1	Tier 2
2027	69,806,919	$9.00	$19.50	$29.25	11,746,358	11,746,358
2028	61,081,054	$9.63	$20.87	$31.30	11,746,358	11,746,358
2029	52,355,189	$10.30	$22.33	$33.49	11,746,358	11,746,358
2030	43,629,324	$11.02	$23.89	$35.83	11,746,358	11,746,358
2031	34,903,459	$11.79	$25.56	$38.34	11,746,358	11,746,358
2032	26,177,594	$12.62	$27.35	$41.02	11,746,358	11,746,358
2033	17,451,729	$13.50	$29.26	$43.89	11,746,358	11,746,358
2034	14,958,625	$14.45	$31.31	$46.96	11,746,358	11,746,358
2035	12,465,521	$15.46	$33.50	$50.25	11,746,358	11,746,358
2036	9,972,417	$16.54	$35.85	$53.77	11,746,358	11,746,358
2037	7,479,313	$17.70	$38.36	$57.53	11,746,358	11,746,358

- **Updated Cost Containment Reserve**: To ensure availability of RGGI allowances to meet grid reliability needs and protect against cost volatility, the states will update the CCR provision, a reserve of allowances that can be made available at an auction if the auction clearing price exceeds a predetermined trigger price. Beginning in 2027, the volume of the CCR will increase to 11.7 million allowances, available annually. This represents a 44% increase compared to the CCR allowances available in 2025. In addition, a second tier of CCR allowances, equal in volume, will be available at auction at a 50% higher trigger price than the existing first tier of CCR allowances (see Figure 2).

  The increased CCR volume and additional CCR allowance tier will ensure the availability of allowances to meet grid reliability needs. If the entire first tier of CCR allowances is released and sold in every year, the updated regional cap trajectory will provide a 76% cap reduction by the year 2037, relative to the 2025 cap. If both tiers of CCR allowances are released and sold in every year, the updated regional cap trajectory will provide a 62% cap reduction by the year 2037, relative to the 2025 cap.

- **Increased Minimum Reserve Price**: The RGGI states will raise the minimum reserve price, the lowest price at which RGGI allowances may be sold at auction. In current RGGI design, the ECR is a reserve of allowances that can be withheld from an auction if the auction clearing price falls below a predetermined trigger price.

  The RGGI states will remove the ECR mechanism and replace it with an increased minimum reserve price of $9.00 effective in 2027, which will increase thereafter at a rate of 7% annually, matching the existing ECR trigger price trajectory. As a result, rather than a fixed number of allowances being withheld if the auction price falls below a set trigger price, all allowances will be withheld below that price.

- **Removal of Offsets from RGGI Design**: During the Third Program Review, stakeholders raised concerns that offset allowances allow covered sources to meet their compliance obligation without reducing emissions at their facilities. Since the program's inception in 2009, there has been very limited interest in sponsorship of an offset project.

  Under current RGGI design, only one Participating State awarded RGGI offset allowances to qualifying projects which reduce or avoid greenhouse gas emissions. One project was approved and awarded offset allowances. In 2017, Maryland's Department of Environment allocated 16,003 offset allowances to a landfill methane capture and destruction project at the New Beulah landfill near Hurlock, Maryland. This is the only award of offset allowances.

  Therefore, the Participating States will no longer award or otherwise distribute RGGI offset allowances. Offset allowances awarded prior to January 1, 2027 can continue to be held and traded in the same way as RGGI CO_2 allowances and can be used for compliance up to a set limit.

- **Miscellaneous Administrative Updates:**
  - **Definitions (XX-1):** The definitions for several terms have been edited for clarity and updated or removed to match corresponding updates throughout the Model Rule.
  - **Monitoring, Reporting & Recordkeeping (XX-8):** Section XX-8 in the updated Model Rule has been streamlined for monitoring, reporting, and recordkeeping requirements.
  - **Other:** Certain references have been updated or corrected throughout the Model Rule for clarity and consistency with the changes discussed above.

Additional Commitments

Fourth RGGI Program Review: The RGGI Participating States commit to beginning a Fourth Program Review no later than 2028. The Fourth Program Review will provide an early opportunity to evaluate the performance of the changes agreed to in the Third Program Review and to adjust the program if needed to ensure its continued success in contributing to a reliable, affordable, clean electricity supply. As part of this review, the states will:

- Evaluate the early performance of the program changes implemented as part of the Third Program Review, together with the changes to the electricity grid, technological and policy developments, and program benefits and costs over the next few years.
- Consider and take input on further commitments beyond 2037, as well as adjustments to the RGGI cap trajectory in earlier years if needed to ensure reliability and affordability.
- Further engage stakeholders on the design of existing and potential new program elements that will continue to ensure a clean, affordable, reliable, and equitable

electricity supply, consistent with state goals and requirements and grid operational needs.

Unsold Allowances: The Participating States commit to removing from circulation all standard RGGI CO_2 allowances which are offered for sale but remain unsold at the end of each auction.

The proposed amendments to 7 **DE Admin. Code** 1147 will implement the program review changes presented in the 2025 RGGI Updated Model Rule.

3.0 Delaware's Greenhouse Gas Emissions

Gases that trap heat in the atmosphere are called greenhouse gases (GHG). Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3) are the primary greenhouse gases. Each of these gases can remain in the atmosphere for different amounts of time, ranging from a few years to thousands of years. All of these gases remain in the atmosphere long enough to become well mixed, meaning that the amount that is measured in the atmosphere is roughly the same all over the world, regardless of the source of the emissions. Larger emissions of greenhouse gases lead to higher concentrations in the atmosphere. Greenhouse gas concentrations are measured in parts per million, parts per billion, and even parts per trillion. Some gases are more effective than others at making the planet warmer and "thickening the Earth's atmospheric blanket."

For each greenhouse gas, a Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, typically a 100-year time horizon, relative to the emissions of 1 ton of CO_2. Gases with a higher GWP absorb more energy, per ton emitted, than gases with a lower GWP, and thus contribute more to warming Earth.

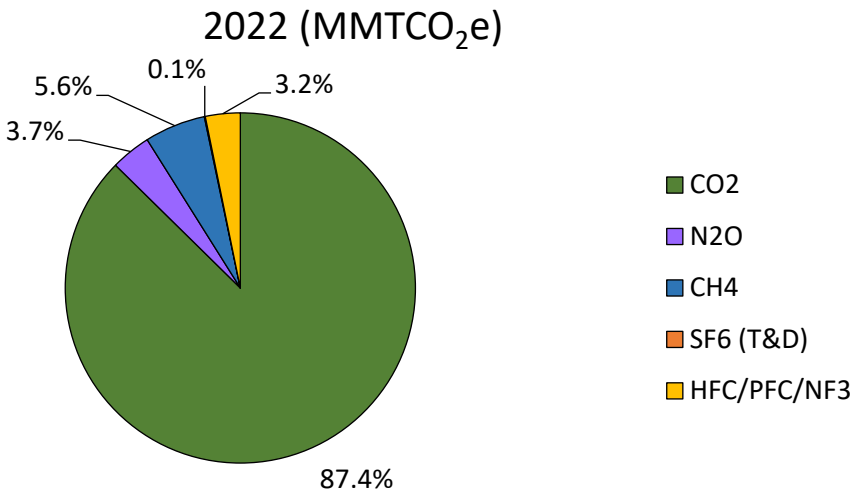


Figure 3. Gross GHG emissions by gas type in 2022 in Delaware (emissions in units of MmtCO₂e)

CO_2 is the primary greenhouse gas emitted through human activities. Figure 3 presents the gross GHG emissions by gas in 2022. In Delaware, CO_2 emissions accounted for the greatest fraction of emissions, 87.4% of the total, followed by methane, 5.6%, and nitrous oxide, 3.7%. The combined contribution of the fluorinated gases (HFCs, PFCs, and NF_3) was 3.2% of total 2022 GHG emissions in Delaware. Sulfur hexafluoride emissions associated with the Transmission & Distribution (T&D) of electricity were less than 1.0% of total emissions.

CO_2 is naturally present in the atmosphere as part of the Earth's carbon cycle (the natural circulation of carbon among the atmosphere, oceans, soil, plants, and animals). Human activities are altering the carbon cycle, both by adding more CO_2 to the atmosphere and by influencing the ability of natural sinks, like forests and soils, to remove and store CO_2 from the atmosphere. The main human activity that emits CO_2 is the combustion of fossil fuels (coal, natural gas, and oil) for energy and transportation. Certain industrial processes and land-use changes also emit CO_2.

Electricity is a key source of energy in Delaware and is used to power homes, business, and industry. In 2022, the combustion of fossil fuels to generate electricity was the second largest source of CO_2 emissions in the state, 27.2% of total gross greenhouse gas emissions. The types of fossil fuel used to generate electricity emit different amounts of CO_2. To produce a given amount of electricity, burning coal will produce more CO_2 than natural gas or oil.

The Delaware Climate Change Solutions Act of 2023 sets ambitious but attainable GHG emission reduction targets of 50.0% by 2030 and net-zero by 2050 from a 2005 baseline. The law also stipulates that Department of Natural Resources and Environmental Control (DNREC) update its inventory on an annual basis to track progress towards these targets.

In comparison to Delaware's 2005 baseline year emissions levels 23.1 Million Metric Tonnes of CO_2 equivalent ($MMTCO_2e$), Delaware's gross total GHG emissions in 2022 were estimated at 17.3 $MMTCO_2e$, which represents a 25.4% decrease in emissions from the baseline year.[15] This indicates that Delaware is making steady progress towards its emission goals.

The 2022 GHG inventory estimates GHG emissions from various sources across economic sectors in Delaware. The economic sectors that were assessed are transportation, electric power, industrial, residential, and commercial buildings, agriculture, waste management, and land-use, land-use change, and forestry (LULUCF).

Figure 4 presents Delaware's GHG emissions (in $MMTCO_2e$) in 2022 by economic sector and end-use (where available) to provide a high-level overview of sources of GHG emissions.

[15] 2022 Annual Greenhouse Gas Emissions Inventory Report.(Dec. 2025). Accessed on Feb. 5, 2026 Regional Greenhouse Gas Initiative - DNREC

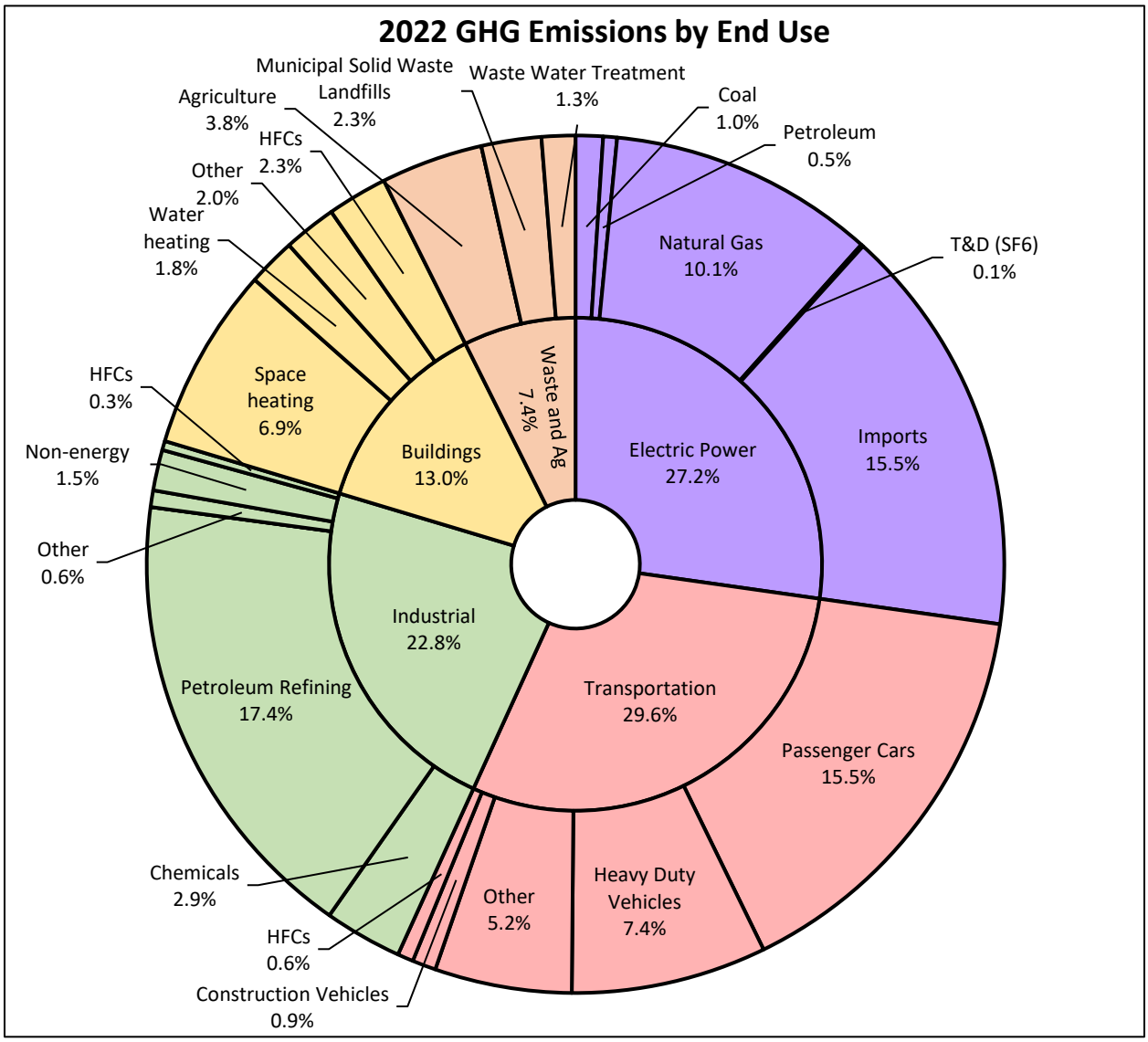


Figure 4. Gross GHG emissions in Delaware in 2022 by economic sector and end-use

Key takeaways from this figure include:

- The largest source of GHG emissions in Delaware was the transportation sector, which represented 29.6% of the gross 2022 GHG emissions.
- When including electricity consumption-based (imported electricity) emissions, the electric power sector was the second largest contributor of GHG emissions, accounting for 27.2% of gross emissions. More than half of emissions from the electric sector were from imported electricity (15.5% of total emissions) with the rest generated in-state (11.7% of total emissions).
- The industrial sector was the third largest contributor of GHG emissions, accounting for 22.8% of gross emissions.

- The buildings sector accounted for a total of 13.0% of statewide GHG emissions, with 6.9% and 7.1% of total emissions from the residential and commercial sectors, respectively.
- Finally, in 2022 the agriculture sector contributed 3.8% and the waste sector 3.6% of gross GHG emissions.

As shown in Figure 5, Delaware has made significant progress in reducing greenhouse gas emissions since the 2005. However, additional reductions in all sectors, including the electricity sector are necessary to achieve both air quality and climate change targets.

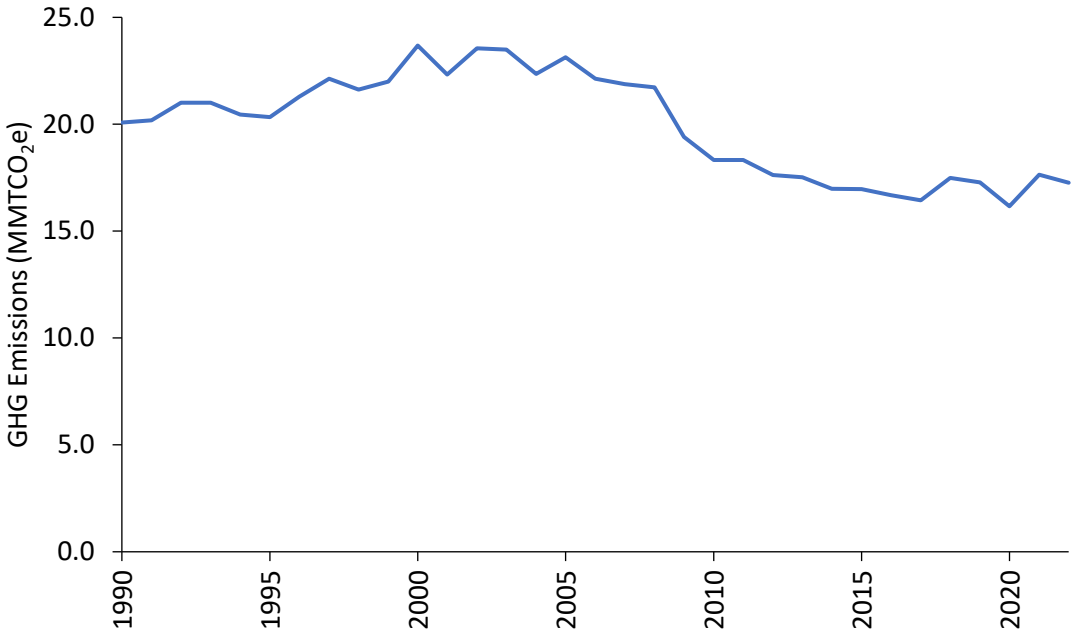


Figure 5. Delaware Gross GHG emissions (million metric tonnes) from 1990 to 2022

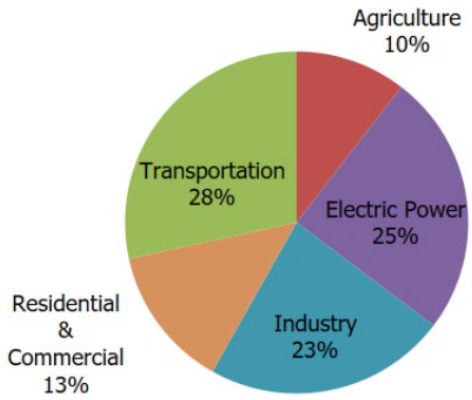


Figure 6. Total US GHG Emissions by Economic Sector

4.0 Climate Change and the Impact of Greenhouse Gas Emissions

4.1 Reducing Global CO_2 Emissions

In 2023, the Intergovernmental Panel on Climate Change (IPCC), released its Sixth Assessment Report, which emphasizes the urgency for industrialized nations to immediately and drastically reduce their greenhouse gas emissions. In order to limit warming to 1.5 degrees Celsius (C) above pre-industrial levels, a target established by the Paris Agreement in 2015, the IPCC found that all viable modelled emissions pathways require "rapid and deep and, in most cases, immediate greenhouse gas emissions reductions in all sectors this decade."[16] Specifically, global greenhouse gas emissions must be reduced by at least 45% by 2030 and reach net zero by 2050. Achieving net zero means that any remaining emissions in 2050 would be balanced by natural carbon sequestration and/or carbon dioxide removal technology.[17]

Furthermore, the IPCC establishes that 1.5 degrees C of warming is not an arbitrary target, but one grounded in scientific urgency. Every increment of warming beyond 1.5 degrees C further constrains resilience pathways, as many adaptation actions become less effective in a warmer world.[18] Natural ecosystems, such as coastal wetlands, also lose protective capacity as sea levels rise and temperature stress becomes more severe.[19]

At current rates of warming, the world is currently on track to exceed 1.5 degrees C of warming between 2030 and 2052.[20] The first 12-month period with an average temperature exceeding 1.5 degrees C above pre-industrial levels occurred between February 2023 and January 2024.[21] This does not necessarily mean that the world has permanently exceeded this threshold, as long-term temperature change is typically considered on a decadal or longer basis rather than single years. However, it is a clear warning sign. While the IPCC acknowledges the possibility of pathways that temporarily

---

[16] IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34.
[17] Net Zero Coalition. United Nations. Accessed February 12, 2026. Retrieved from https://www.un.org/en/climatechange/net-zero-coalition .
[18] IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34.
[19] ibid.
[20] IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3-24. Retrieved from https://doi.org/10.1017/9781009157940.001 .
[21] "Warmest January on Record, 12-Month Average over 1.5°C above Preindustrial." Copernicus. Retrieved from https://climate.copernicus.eu/warmest-january-record-12-month-average-over-15degc-above-preindustrial.

"overshoot" 1.5 degrees C and later course-correct through heightened deployment of carbon dioxide removal, these pathways by necessity are more costly, and carry significant risks, including the potential to trigger additional climate feedback mechanisms, such as thawing permafrost releasing significant amounts of methane into the atmosphere.[22]

The National Academy of Science (NAS) along with the global scientific community has been studying the question of how human-cause emissions of greenhouse gases are affecting the climate for well over a century. The 2025 Consensus Report, "*Effects of Human-cause Greenhouse Gas Emissions on U.S. Climate, Health and Welfare*" presents an evaluation of the state of the science regarding the effects on human health and welfare in the United States.[23] On the basis of the scientific evidence outlined in the body of the report, the committee reached the following overarching conclusion:

The NAS report found - EPA's 2009[24] finding that the human-caused emissions of greenhouse gases threaten human health and welfare were accurate, has stood the test of time, and is now reinforced by even stronger evidence. Today, many of EPA's conclusions are further supported by longer observational records and multiple new lines of evidence. Moreover, research uncovered additional risks that were not apparent in 2009. The report concludes with the following five key points:

> "(1) Emissions of greenhouse gases from human activities are increasing the concentration of these gases in the atmosphere. Human activities—such as the extraction and burning of fossil fuels, cement and chemical production, deforestation, and agricultural activities emit GHGs, which include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases (F-gases), to the atmosphere. Total global GHG emissions continue to increase, even though U.S. emissions of CO_2 have decreased slightly in recent years largely due to changes in energy production and consumption. Multiple lines of evidence show that GHG emissions from human activities are the primary driver of the observed long-term warming trend. No known natural drivers, such as incoming solar radiation or volcanic emissions, can explain observed changes.

---

[22] IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34.
[23] National Academies. September 2025. Effects of Human-Caused Greenhouse Gas Emissions on U.S. Climate, Health, and Welfare.
[24] These findings were signed by the Administrator on December 7, 2009. On December 15, 2009, the final findings were published in the *Federal Register* (www.regulations.gov) under Docket ID No. EPA-HQ-OAR-2009-0171. The final rule was effective January 14, 2010. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act Scientific and technical information summarized to support the Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act can be found here: Technical Support Document for the Findings.

(2) Improved observations confirm unequivocally that greenhouse gas emissions are warming Earth's surface and changing Earth's climate. Longer records improved and more robust observational networks, and analytical and methodological advances have strengthened detection of observed changes and their attribution to elevated GHGs. Trends observed include increases in hot extremes and extreme single-day precipitation events, declines in cold extremes, regional shifts in annual precipitation, warming of the Earth's oceans, a decrease in ocean pH, rising sea levels, and an increase in wildfire severity.

(3) Human-caused emissions of greenhouse gases and resulting climate change harm the health of people in the United States. Climate change intensifies risks to humans from exposures to extreme heat, ground level ozone, airborne particulate matter, extreme weather events, and airborne allergens, affecting the incidence of cardiovascular, respiratory, and other diseases.

Climate change has increased exposure to pollutants from wildfire, smoke and dust, which has been linked to adverse health effects. The increasing severity of some extreme events has contributed to injury, illness, and death in affected communities. Health impacts related to climate-sensitive infectious diseases such as those carried by insects and contaminated water have increased. New evidence is developing about additional health impacts of climate change, including on mental health, nutrition, immune health, antimicrobial resistance, kidney disease, and negative pregnancy related outcomes. Groups such as older adults, people with preexisting health conditions or multiple chronic diseases, and outdoor workers are disproportionately susceptible to climate-associated health effects. Even as non-climate factors, including adaptation measures, can help people cope with harmful impacts of climate change, they cannot remove the risk of harm.

(4) Changes in climate resulting from human-caused emissions of greenhouse gases harm the welfare of people in the United States. Climate-driven changes in temperature and precipitation extremes and variability are leading to negative impacts on agricultural crops and livestock, even as technological and other changes have increased agricultural production. Climate change, including increases in climate variability and wildfires, is changing the community composition and function of forest and grassland ecosystems and the services they provide. Climate-related changes in water availability and quality vary across regions in the United States with some regions showing a decline. Climate-related changes in the chemistry and the heat content of the ocean are having negative effects on calcifying organisms and contributing to increases in harmful algal blooms. U.S. energy systems, infrastructure, and many communities are experiencing increasing stress and costs owing to the effects of climate change.

(5) Continued emissions of greenhouse gases from human activities will lead to more climate changes in the United States, with the severity of expected change

> increasing with every ton of greenhouse gases emitted. Despite successful efforts in many parts of the world to reduce emissions, total global GHG emissions have continued to increase, and additional warming is certain. All climate models—regardless of assumptions about future emissions scenarios or estimates of climate sensitivity—consistently project continued warming in response to future atmospheric GHG increases. Applying fundamental physics of the Earth system leads to the same conclusion. Continued changes in the climate increase the likelihood of passing thresholds in Earth systems that could trigger tipping points or other high-impact climate surprises.
>
> In summary, the committee concludes that the evidence for current and future harm to human health and welfare created by human-caused GHGs is beyond scientific dispute. Much of the understanding of climate change that was uncertain or tentative in 2009 is now resolved, and new threats have been identified. These new threats and the areas of remaining uncertainty are under intensive investigation by the scientific community. The United States faces a future in which climate-induced harm continues to worsen and today's extremes become tomorrow's norms."

The state of Delaware takes the threat of climate change and emissions of GHGs seriously. The state legislature has found that climate change poses a serious risk to human health and that emissions of greenhouse gases are causing changes in Earth's Climate.

4.2 Meeting Delaware's Greenhouse Gas Reduction Goals

The DE CO_2 Budget Trading Program is a key component of Delaware's strategy to mitigate the environmental and health impacts of climate change in Delaware. Climate change poses a threat to Delaware's human health, tourism industry, agriculture industry, transportation infrastructure, wastewater infrastructure, homes and our communities in addition to our air quality, surface and subsurface drinking water supplies, marine and freshwater fisheries, salt and freshwater wetlands, forest species and wildlife habitats.[25]

[25] Delaware Climate Action Plan. December 2025. Retrieved from https://dnrec.delaware.gov/climate-plan/.

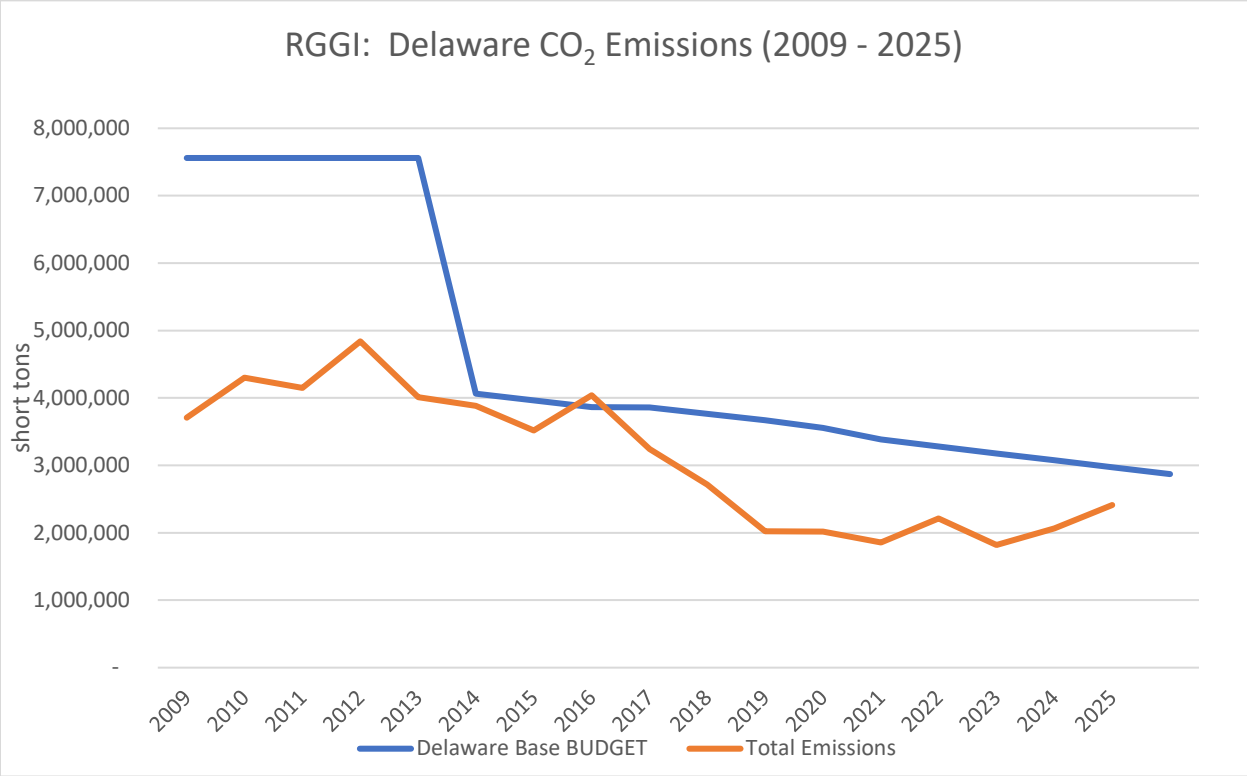


Figure 7. Delaware's RGGI power plant emissions and the Delaware RGGI Cap (2009-2025)

Delaware is already experiencing climate change, which is causing increased temperatures, rising sea levels, and more frequent heavy precipitation events.[26] Since 1895, the state's average annual temperature has increased by 3°F. As a result of climate change, temperatures are projected to rise an additional 3 to 4°F by mid-century (2050) and by as much as 9°F by late century (2100).

Rising temperatures have direct impact on the electricity sector and consumer prices, driving increases in energy need for cooling, increasing peak summertime demand and decreasing grid efficiency. Climate driven heat waves also may increase the risk of serious heat-related illnesses, such as heat stroke, particularly among vulnerable populations. Higher temperatures may also lead to more days when ground-level ozone concentrations exceed health-based standards. Heat-related illnesses disproportionately impacts children, the elderly, and people with underlying chronic illnesses such as heart disease, respiratory illness, or diabetes.

Annual average precipitation is also expected to increase by 2 to 4 inches by mid-century (2050), with the largest seasonal increase occurring in winter. Heavy rainstorms and the associated risk of flooding are expected to become more frequent and more intense.

[26] Delaware Climate Change Projections Report. October 2025. Retrieved from https://cema.udel.edu/documents/Delaware_2025_Climate_Change_Projections_Report.pdf .

Changes in temperature and precipitation patterns may also lengthen the duration of mosquito and tick seasons, increasing the risk of insect-borne diseases such as Lyme disease and Zika virus for Delaware residents.

Climate change is also impacting Delaware by contributing to accelerated sea level rise.[27] Because of its geographic location, low average elevation, and strong economic and cultural ties to the coast, Delaware is particularly vulnerable to rising sea levels. Impacts include the loss of low-lying land and structures, saltwater intrusion into ground and surface waters, and increased coastal flooding from storm events.

Sea levels at the Lewes tide gauge have risen by approximately 15 inches since 1919, with the rate of rise accelerating in recent decades. The rate of sea level rise in Delaware is accelerating, with over 6 inches of sea level rise occurring between 1990 and 2020. While the linear trend over the full period of record is 3.71 mm/year, when calculated over just the past 20 years, the linear trend is 7.09 mm/year, nearly doubled.

By 2050, sea levels are projected to rise an additional 1.2 to 1.5 feet. By 2100, sea levels are projected to rise 2 feet to 3 feet by 2100 under a lower emissions scenario. Under a higher emissions scenario, sea levels are projected to rise 4 feet to 6 feet. The marked spread between low emissions and high emissions outcomes highlights the urgency to reduce emissions. A 5-foot rise in sea levels would inundate 11% of the state's land mass.[28]

Sea level rise is expected to affect roads, bridges, and other critical infrastructure throughout the state, including access and evacuation routes serving beach communities and other low-lying areas. Although the most direct impacts will occur in areas near tidal waters, the effects will be felt statewide through higher costs to maintain public infrastructure, a reduced tax base, loss of recreational opportunities, and changes to community character.

Because climate change is affecting Delaware's residents, natural resources, infrastructure, and industries, the State recognizes that strong action to reduce greenhouse gas emissions is necessary to protect quality of life and ensure long-term economic vitality.

Following the 2017 decision by the Trump Administration to withdraw the United States from the Paris Agreement,[29] the U.S. Climate Alliance[30] was formed by a bipartisan

[27] ibid.
[28] Ibid.
[29] The Paris Agreement central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Retrieved from https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement.
[30]The United States Climate Alliance is a bipartisan coalition of governors committed to reducing greenhouse gas emissions consistent with the goals of the Paris Agreement. Retrieved from https://www.usclimatealliance.org/

coalition of 17 states committed to reducing greenhouse gas emissions consistent with the goals of the Paris Agreement. Delaware is a founding member of the U.S. Climate Alliance, and upon joining the coalition, committed to reducing its economy-wide greenhouse gas emissions by 26-28% by 2025 from a 2005 baseline.

Under the Biden Administration, the United States officially rejoined the Paris Agreement in 2021, establishing a Nationally Determined Contribution (NDC) for the United States and setting an economy-wide target of 61 to 66% emissions reduction by 2035.[31] NDCs are non-binding plans developed and submitted by Paris Agreement signatories which include emissions reduction targets, strategies to build resilience against climate impacts, and often, financial or technical requirements for implementation. In response to the United States rejoining the Paris Agreement, the U.S. Climate Alliance committed to achieving net-zero emissions by 2050, consistent with United Nations recommendations to limit warming to 1.5 degrees C and aligned with the United States' NDC.[32]

In January 2025, the Trump Administration announced it would pull the United States from the Paris Agreement for a second time and a year later the administration announced the United States would withdraw from the UN Framework Convention on Climate Change and the IPCC. These federal policy changes underscore the critical nature of state-level action and leadership on climate change.

To address climate change and safeguard local communities, Delaware enacted the Climate Change Solutions Act of 2023.[33] This legislation is the foundation for climate action in Delaware. The Act establishes the state's first greenhouse gas emissions reduction targets: a 50% reduction in greenhouse gas emissions by 2030 and net-zero emissions by 2050, both measured from the state's 2005 baseline. In addition to the emissions targets, the Act also establishes other key components of Delaware's climate change response:

- An all-of-government implementation strategy, requiring state agencies to consider greenhouse gas emissions and climate resilience in decision-making for regulations, agency purchasing, construction projects and infrastructure planning.
- A framework for regularly updating and implementing the state's Climate Action Plan, including a timeline for releasing implementation reports and updated climate plans.
- The state's Technical Climate Advisors, a committee of experts, convened to update Delaware-specific climate planning scenarios for precipitation, temperatures, and sea level rise every 5 years.

---

[31] The United States' Nationally Determined Contribution Reducing Greenhouse Gases in the United States: A 2035 Emissions Target. UNFCC. December 2024. Retrieved from https://unfccc.int/sites/default/files/2024-12/United%20States%202035%20NDC.pdf.

[32] U.S. Climate Alliance Commits to Achieve Net-Zero Emissions No Later than 2050. USCA. April 2021. https://usclimatealliance.org/press-releases/alliance-2050-net-zero-commitment-apr-2021/

[33] *7 Del. C. § 10000 et seq.*, the "Delaware Climate Change Solutions Act of 2023." https://legis.delaware.gov/SessionLaws/Chapter?id=41760.

- State Agency Climate Change Officers, a group of state agency representatives convened to coordinate development and implementation of strategies within state agencies.

In 2025, Delaware published its first Climate Action Plan, the first to be produced under the provisions of the state's Climate Change Solutions Act. This comprehensive plan outlines goals, strategies and actions that will help the state become more resilient to climate change and reduce the emissions that are causing climate change. A key component of this plan was modeling future emissions under two different scenarios. In the first scenario, the state would continue existing policies. In the second scenario, the state would implement a suite of additional policies to further drive emissions to net zero by 2050. Modeling emissions trajectories with existing policies and additional actions is a key component of the plan. RGGI is listed as a foundational program in the Climate Action Plan and modeling assumes continuation of the program.[34] Strengthening the regional RGGI allowance cap as proposed by the third program review aligns with the Climate Action Plan with Delaware achieving its net-zero emissions goals by 2050.

[34] DNREC. (2025). 2025 Climate Action Plan. Dover, DE: Delaware Department of Natural Resources and Environmental Control. Retrieved from https://documents.dnrec.delaware.gov/energy/Climate-Plan/2025-Delaware-Climate-Action-Plan.pdf

5.0 2026 Proposed Amendments to 7 DE Admin Code 1147 – CO2 Budget Trading Program

5.1 Updates to the Regional Base CO_2 Allowance Budget

The updated Model Rule reduces the regional emissions cap in 2027 to 69,806,919 tons of CO_2 from 75,717,784 tons under the previous Model Rule (Figure 2 and Table 1). Allowances decline by an average of 8,538,789 tons per year, which is approximately 10.5% of the 2025 budget, thereafter through 2033. Then, from 2034 through 2037 the cap will decline by 2,386,204 tons of CO_2 annually, which is approximately 3% of the 2025 budget. Subsequent years are set to match the 2037 emissions cap. No adjustments are made to banked allowances, which continue to be available for compliance.[35] Setting the regional cap beyond 2037 will be addressed in the next RGGI Program Review, to begin no later than 2028.

5.1.1 Delaware's Base Budget

Delaware's portion of the regional emissions cap is approximately 4.47 percent and amended language is presented in Section 5.0 of 7 DE Admin. Code 1147. DNREC is proposing the following Delaware CO_2 Trading Program base budgets by year:

Table 2. Delaware's Base CO2 Allowance Budget

Year	Tons of CO_2
2027	2,551,724
2028	2,232,759
2029	1,913,793
2030	1,594,828
2031	1,275,862
2032	956,897
2033	637,931
2034	546,798
2035	455,665
2036	364,532
2037+ And each succeeding calendar year	273,399

5.1.2 Additional Cost Containment Reserve

DNREC is proposing amendments to Section 5.3 and Section 9.0 for the two CCRs that will provide flexibility and cost containment for the program. DNREC will allocate allowances to the Delaware Auction Account. The CCRs will consist of a fixed quantity of allowances, in addition to the cap, that would be held in reserve, only to be made available for sale if allowance prices exceed predefined price levels.

The CCR is being amended to simplify and improve the cost containment mechanism

[35] As of March 13, 2026, the estimated bank of privately held allowances in excess of RGGI compliance obligations is 61 million short tons.

for the program. The CCR will provide the ability for an immediate injection of additional allowances in the next quarterly auction in the event price triggers are exceeded. This addresses the concern expressed by stakeholders that the current cost containment mechanism (expansion of the percent of offset allowances allowable to demonstrate compliance) would be slow to react and ineffective.

To ensure availability of RGGI allowances to meet grid reliability needs and protect against cost volatility, the proposed amendments contain language to revise the existing CCR. The CCR is a reserve of allowances made available at auction if the auction clearing price exceeds a predetermined trigger price. The update includes increasing the size of the CCR and implementing a second tier of CCR allowances available at auction at a higher trigger price.

- The proposed amendments contain language to set a fixed quantity of CCR tier 1 and tier 2 allowances, beginning in 2027 and each year thereafter.
- Beginning in 2027, each CCR tier will include a total of approximately 11.75 million allowances for the ten states participating in the Third Program Review (Delaware's portion is 429,377 allowances).
- All CCR tier 1 and tier 2 allowances will be fully fungible.
- CCR tier 1 allowances will be released at auction according to the same process as in current RGGI design. CCR tier 1 allowances will be made available immediately in any auction in which demand for allowances at prices above the CCR tier 1 trigger price exceeds the initial offering of allowances at that auction. CCR tier 1 allowances will only be sold at or above the CCR tier 1 trigger price.
- CCR tier 2 allowances will be made available immediately in any auction in which demand for allowances above the CCR tier 2 trigger price exceeds the initial offering of allowances and the available CCR tier 1 allowances. CCR tier 2 allowances will only be sold at or above the CCR tier 2 trigger price.
- The CCR tier 1 trigger price will match the current CCR's price trajectory of $19.50 in 2027, increasing by 7% annually thereafter.
- The CCR tier 2 trigger price will be set at $29.25 in 2027, increasing by 7% annually thereafter.

If the entire first tier of CCR allowances is released and sold in every year, the updated regional cap trajectory will provide a 74% cap reduction by the year 2037, relative to the 2025 cap. If both tiers of CCR allowances are released and sold in every year, the updated regional cap trajectory will provide a 60% cap reduction by the year 2037, relative to the 2025 cap (Figure 2 and Tables 3 and 4). These figures do not include the existing bank of allowances, which will be available for compliance and thus provide an additional source of cap flexibility.

Table 3. Delaware CCR Tier 1 Size and Trigger Prices

Year	CCR Tier 1 Size	CCR Trigger Prices
2027	429,377	$19.50
2028	429,377	$20.87
2029	429,377	$22.33
2030	429,377	$23.89
2031	429,377	$25.56
2032	429,377	$27.35
2033	429,377	$29.26
2034	429,377	$31.31
2035	429,377	$33.50
2036	429,377	$35.85
2037	429,377	$38.36

Table 4. Delaware CCR Tier 2 Size and Trigger Prices

Year	CCR Tier 2 Size	CCR Trigger Prices
2027	429,377	$29.25
2028	429,377	$31.30
2029	429,377	$33.49
2030	429,377	$35.83
2031	429,377	$38.34
2032	429,377	$41.02
2033	429,377	$43.89
2034	429,377	$46.96
2035	429,377	$50.25
2036	429,377	$53.77
2037	429,377	$57.53

Allowances from the CCRs will be fully fungible and can be used for compliance in any of the RGGI states. The CCRs will be populated with allowances from each of the Participating States in a proportion equal to each respective state's portion of the overall regional emissions budget (the regional cap). The proposed size of the CCRs and the proposed CCR trigger prices were determined based upon a series of iterative modeling runs. The CCR size and CCR trigger prices are intended to balance cost control (mitigation of short term price spikes) and the overall environmental integrity of the regional emissions cap.

5.1.3 Replaces Emissions Containment Reserve with Increased Minimum Reserve Price

The updated Model Rule proposed increases the minimum reserve price, the lowest price at which RGGI allowances may be sold at auction. In current RGGI design, in addition to a minimum reserve price, there is an ECR, which is a reserve of allowances that can be withheld from an auction if the auction clearing price falls below a

predetermined trigger price. Beginning in 2027, the proposed amendment removes the ECR and replaces it with an increased minimum reserve price that matches the existing ECR trigger price trajectory. The new minimum reserve price is $9.00 in 2027, increasing 7% annually thereafter.

As a result, rather than a fixed number of allowances being withheld under the ECR if the auction price falls below this price, all allowances will simply be withheld below this price (Table 5).

Delaware is proposing to amend the definitions (Section 1.0) for the minimum reserve price and eliminate the CO_2 ECR.

Table 5. Minimum Reserve Prices

Year	Minimum Trigger Price
2027	$9.00
2028	$9.63
2029	$10.30
2030	$11.02
2031	$11.79
2032	$12.62
2033	$13.50
2034	$14.45
2035	$15.46
2036	$16.54
2037	$17.70

5.1.4 Removes Offsets from RGGI Design Beginning in 2027

The updated Model Rule eliminates language regarding RGGI offset allowances. Under past and current RGGI design, certain projects were eligible for the award of RGGI offset allowances, which could be held and traded in the same way as RGGI CO_2 allowances, and used for compliance up to a set limit. Beginning in 2027, RGGI offset allowances will no longer be awarded for any project categories included in previous versions of the Model Rule. Any already awarded offset allowances could still be used for compliance, subject to the existing limits on their use.

Delaware is proposing to eliminate Section 10.0 Offsets and mark the section as “Reserved”.

5.2 Administrative and Minor Technical Amendments

Definitions: The definitions for several terms (Section 1.0) have been edited for clarity and updated or removed to match corresponding updates throughout the Model Rule.

Monitoring, Reporting & Recordkeeping: Delaware is amending Section 8.0 for monitoring, reporting, and recordkeeping requirements to align and be consistent with federal requirements power plants that are already subject to 40 CFR 75.

Other: Certain references have been updated or corrected throughout the Model Rule for clarity and consistency with the changes discussed above.

6.0 IPM Modeling Results and Analysis

This section explains DNREC's analysis of the proposed amendments and includes a summary of the Integrated Planning Model (IPM®) analysis conducted by ICF International (ICF). IPM® is a nationally recognized modeling tool used by the EPA, state energy and environmental agencies, and private sector firms such as utilities and generation companies. Modeling analysis and review was coordinated by RGGI Inc. and Delaware staff which included input from energy and environmental representatives from the Participating States and each regional transmission organization (ISO-NE, ISO-NY and PJM).

This section also discusses the Department's analysis of the costs associated with impacts from the revisions to the Program on the Delaware economy and customer bills.[36,37,38] It should be noted that the costs evaluated in this section reflect the revisions contemplated by the then-Participating States at the end of the ten-state RGGI third program review.

6.1 Reference Scenarios v. Policy Cases

To estimate the potential impacts of the revisions from the third program review, IPM® compared two versions of the future with several potential policy revisions to the Program (Modeling Cases) against two versions of Reference Cases (business as usual scenario) that project how the electricity system would look if the RGGI program remained unchanged and revisions were not implemented.

Both Reference Cases assume no further cap reductions after 2030, meaning the cap remains flat after 2030. The modeling assumptions and input data were developed through a stakeholder process with representatives from the electricity generation sector, business and industry, environmental advocates, and consumer interest groups. Modeling results were then presented to stakeholders for review and comment throughout the development of the revisions to the RGGI program.

This Program Review utilized two "modeling scenarios" for the analysis due to the uncertainty related to the pace of clean energy resource deployment caused by a variety of factors.

6.1.1 Modeling Case A

To provide a range of outcomes related to clean energy resource deployment, Modeling Case A (Case A) was developed to serve as a "bookend" to the Case B paradigm since it assumes that only currently contracted renewables (at the time of analysis) would be added to the system through state clean energy programs. The Inflation Reduction Act

[36] "RGGI Program Review: Economic Impact Modeling Results" by ICF, August 2025. https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/RGGI_Econ_Modeling_Results.pdf
[37] Bills Analysis (Analysis Group). July 2025: https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/Program_Review_Bills_Analysis.pdf
[38] IPM® Electricity Sector Modeling (ICF). July 2025. https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/RGGI_Program_Review_IPM_Results.xlsx

(IRA) of 2022 was assumed to be in effect, and the IPM ®model could add more clean energy resources, if it was economic to do so. The Case A paradigm also includes less beneficial electrification, so load growth is considerably lower.

6.1.2 Modeling Case B

As a starting point, Modeling Case B (Case B) assumed that all RGGI participating states' clean energy program goals are achieved and assumed that the IRA of 2022 provides tax credits to incentivize clean energy adoption.

A Reference scenario and a Modeling scenario were modeled using each of these Modeling scenarios, resulting in the creation of a Reference Case A, Modeling Case A, Reference Case B, and Modeling Case B. Key IPM® modeling results for these cases are described below.

6.2 Development of Reference Cases

Assumptions and sources of input data are specified in detail in the "IPM® Electricity Sector Modeling" released by the Participating States on July 3, 2025.[39] Key assumptions and data include regional electricity demand, load shapes, transmission system capacities and limits, generation unit level operation and maintenance costs and performance characteristics, fuel prices, new capacity and emission control technology costs and performance characteristics, reserve margins and local reserve requirements, RPS requirements, national and state environmental regulations, and financial market assumptions. All estimates are based on 2022 dollars.

Regional electricity demand growth projections, transmission capacities and limits, and near-term expected infrastructure additions/retirements were obtained from regional ISO sources and augmented with input from the Participating States.

For the Henry Hub natural gas price forecast assumption, a volume-weighted set of futures for 2024 and 2025 were used as the starting point; the 2030-2050 price projection from the U.S. Energy Information Administration's (EIA) 2023 Annual Energy Outlook Reference Case was used as long-term forecast, with linear interpolation applied between 2025 and 2030[40]. The price starts at $3.37/MMbtu (2022$) in 2025 and ends at $4.12/MMbtu (2022$) in 2040.

A number of assumptions were used to develop the model, including:

- The construction of new coal-fired plants was precluded to meet projected capacity shortfalls in the United States unless they include carbon capture. There are no coal units in Delaware as of February 2025;

- Nuclear lifetimes were assumed to be 80 years, with plants allowed to retire earlier if firmly planned or if they are not economically competitive in the model;

[39] IPM Electricity Sector Modeling. (2025) Retrieved from www.rggi.org/programoverview-and-design/program-revew.
[40] Annual Energy Outlook – AEO2023. U.S. Energy Information Administration. (2023).

- A national 3-pollutant policy (SO_2, NO_x, and mercury) that approximates the Cross-state Air Pollution Rule (CSAPR) and the Mercury and Air Toxics Rule (MATS) is assumed, as well as the New Source Performance Standards for GHG Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units (EGUs); Emission Guidelines for GHG Emissions from Existing Fossil-Fuel Fired EGUs.

6.2.1 Reference Case B Results

In 2028, fossil-fueled generation represents 84% of in-state generation in Reference Case B[41]. By 2037, Delaware's in-state fossil-fueled generation remains constant at 84%. Load grows significantly during the modeled time horizon. The penetration of renewable generation in the state remains flat signaling Delaware's failure to achieve the state's clean energy targets, with solar, wind, and other renewables representing 16% of in-state generation in 2037. Overall, Delaware has net imports of 8 TWh in 2028 and 9 TWh in 2037.

This generation data was based on the IPM® output for Reference Case, Table 6.

Table 6. Delaware Reference Case B Net Generation (GWh)

Capacity Type:	**2028**	**2030**	**2032**	**2035**	**2037**
Combined Cycle	3,403	3,424	2,038	2,350	2,844
Combustion Turbine	97	438	11	50	251
Oil/Gas	41	43	27	27	32
Solar PV	552	552	552	552	552
Onshore Wind	5	5	5	5	5
Offshore Wind	-	-	-	-	-
Other RE	108	43	43	43	43
Total Generation	4206	4505	2675	3025	3726

Delaware CO_2 emissions in Reference Case B are projected to decrease from approximately 1.52 million tons in 2028 to about 1.41 million tons in 2037. This decrease is primarily due to the change in generation mix as described above.

The emissions data for Reference Case B is displayed in Table 7.

[41] IPM® Electricity Sector Modeling. July 2025. Retrieved from https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/RGGI_Program_Review_IPM_Results.xlsx

Table 7. Reference Case B CO2 Emissions (Million Tons)

	2028	2030	2032	2035	2037	Cumulative (2028-2037)
CT	7.4	4.9	4.6	3.6	3.6	45
DE	1.5	1.7	0.9	1.1	1.4	12
ME	0.7	0.3	0.4	0.6	0.4	5
MD	4.0	3.8	4.2	4.2	4.3	41
MA	5.5	5.0	5.1	5.4	3.0	50
NH	1.2	1.0	1.1	1.7	0.8	13
NJ	16.6	16.0	13.2	16.4	17.8	158
NY	10.3	7.7	7.4	6.8	5.9	73
RI	2.4	2.2	1.9	2.5	1.4	22
VT	-	-	-	-	-	-
Total RGGI Affected Emissions	49.7	42.6	38.8	42.3	38.7	420
Canada Eastern Interconnect + Quebec	14.2	14.3	15.6	13.5	14.0	142
New York - NYISO	10.3	7.7	7.4	6.8	5.9	73
ISONE	17.3	13.3	13.2	13.9	9.2	135
RGGI PJM	22.1	21.6	18.2	21.7	23.5	212
Total Eastern Interconnect Emissions	965	745	589	565	502	6,395

6.2.2 Reference Case A Results

Again, Reference Case A assumes that only currently contracted renewables (at the time of analysis) would be added to the system through the states' clean energy programs. The IRA was assumed to be in effect, and the IPM® model could add more clean energy resources, if it was economic to do so.

In 2028, fossil-fueled generation accounts for 85% of Delaware's in-state generation. Solar, wind, and other renewables account for 15% of in-state generation. By 2037, in-state fossil-fueled generation has risen to 93% of in-state generation. The level of renewable generation in GWh is consistent through 2037, but load grows over this timeframe, with renewables representing 7% of in-state generation in 2037 (see Table 8).

Table 8. Delaware Reference Case A Net Generation (GWh)

Capacity Type:	2028	2030	2032	2035	2037
Combined Cycle	3,348	7,108	4,797	7,651	7,875
Combustion Turbine	28	30	126	65	11
Oil/Gas	41	41	43	41	41
Solar PV	552	552	552	552	552
Onshore Wind	5	5	5	5	5
Offshore Wind	-	-	-	-	-
Other RE	43	43	43	43	43
Total Generation	4,017	7,779	5,566	8,357	8,528

The emissions data for Reference Case A is displayed in Table 9.

Table 9. Reference Case A CO2 Emissions (Million Tons)

	2028	2030	2032	2035	2037	Cumulative (2028-2037)
CT	7.8	6.9	5.8	4.4	4.5	55
DE	1.5	2.9	2.0	3.1	3.1	27
ME	0.8	0.1	0.2	0.5	0.3	4
MD	4.0	4.0	4.3	4.8	4.3	44
MA	5.7	5.5	5.2	5.6	5.2	55
NH	1.2	1.0	1.3	1.6	1.3	13
NJ	16.5	15.4	14.3	17.4	17.1	163
NY	15.0	16.5	17.7	21.2	22.7	191
RI	2.5	2.5	2.6	2.9	2.5	27
VT	-	-	-	-	-	-
Total RGGI Affected Emissions	54.9	54.8	53.5	61.4	61.1	578
Canada Eastern Interconnect + Quebec	14.8	15.0	16.1	13.3	13.4	144
New York - NYISO	15.0	16.5	17.7	21.2	22.7	191
ISONE	17.9	16.0	15.1	15.0	13.8	154
RGGI PJM	22.0	22.3	20.6	25.3	24.6	233
Total Eastern Interconnect Emissions	991	729	602	584	519	6,507

6.3 Program Design Assumptions for Modeling Cases

The 2025 Model Rule contains provisions for two tiers of CCR, which provide up to 11.75 million allowances each per year. The CCR tier 1 trigger price matches the current CCR's price trajectory of $19.50 in 2027, increasing by 7% per year thereafter. The CCR tier 2 trigger price is set at $29.25 in 2027, also increasing by 7% per year thereafter. If the entire first tier of CCR allowances is sold each year, the regional cap results in a 74% reduction in 2037 relative to the 2025 cap; if both tiers of CCR allowances are exhausted each year, the regional cap results in a 60% reduction.

The Model Rule also removes the ECR while increasing the minimum reserve price to match the previous ECR trajectory, which is $9.00 in 2027, increasing 7% annually thereafter. The proposed 7% annual increase for the minimum reserve price is up from 2.5% under current regulations. Lastly, the Modeling Cases assume no use of offsets since their use is removed in the 2025 Model Rule.

In order to obtain Delaware specific results, several components between the Modeling Cases and the Reference Cases are compared, including generation mix, net electricity imports, changes in generation capacity, CO_2 emissions, CO_2 allowance prices, and wholesale and retail electricity price impacts.

6.3.1 Modeling Case B Generation Mix Impacts

Generation from fossil fuel units decreases in both cases. Generation from renewables is essentially the same in both cases. In Reference Case B, Delaware is a net importer of 12 TWh in 2037. In Modeling Case B, Delaware is a net importer of 14 TWh in 2037. This generation data was based on the differences between IPM® output for the Reference Case B and Modeling Case B, which are displayed in Tables 10 and 11.

Table 10. Delaware Reference Case B Net Generation (GWh)

Capacity Type:	**2028**	**2030**	**2032**	**2035**	**2037**
Combined Cycle	3,403	3,424	2,038	2,350	2,844
Combustion Turbine	97	438	11	50	251
Oil/Gas	41	43	27	27	32
Solar PV	552	552	552	552	552
Onshore Wind	5	5	5	5	5
Offshore Wind	-	-	-	-	-
Other RE	108	43	43	43	43
Total Generation	4206	4505	2675	3025	3726

Table 11. Delaware Modeling Case B Net Generation (GWh)

Capacity Type:	2028	2030	2032	2035	2037
Combined Cycle	2,900	2,340	802	1,119	802
Combustion Turbine	67	220	2	11	74
Oil/Gas	66	60	30	30	32
Solar PV	552	552	552	552	552
Onshore Wind	5	5	5	5	5
Offshore Wind	-	-	-	-	-
Other RE	114	43	43	43	43
Total Generation	3,705	3,221	1,434	1,760	1,508

6.3.2 Modeling Case B Emissions Impact

CO_2 emissions in Delaware are projected to be 1.025 million tons lower in Modeling Case B than in Reference Case B in 2037. Over the 2028-2037 time period, cumulative CO_2 emission reductions from Delaware are projected to be 3 million tons lower in Modeling Case B as compared to Reference Case B. Emissions from affected sources across the RGGI region are estimated to be 111 million tons (26%) lower under Modeling Case B than under Reference Case B for the 2028-2037 period. This emissions data is based on the differences between IPM® output displayed in Tables 12 and 13 below.

Table 12. Reference Case B CO2 Emissions (Million Tons)

State	2028	2030	2032	2035	2037
CT	7.4	4.9	4.6	3.6	3.6
DE	1.521	1.724	0.885	1.051	1.405
ME	0.7	0.3	0.4	0.6	0.4
MD	4.0	3.8	4.2	4.2	4.3
MA	5.5	5.0	5.1	5.4	3.0
NH	1.2	1.0	1.1	1.7	0.8
NJ	16.6	16.0	13.2	16.4	17.8
NY	10.3	7.7	7.4	6.8	5.9
RI	2.4	2.2	1.9	2.5	1.4
VT	-	-	-	-	-
10-State Total	49.7	42.6	38.8	42.3	38.7
Canada Eastern Interconnect + Quebec	14.2	14.3	15.6	13.5	14.0
New York - NYISO	10.3	7.7	7.4	6.8	5.9
ISONE	17.3	13.3	13.2	13.9	9.2
Non-RGGI PJM	423	340	281	263	237
RGGI PJM	22.1	21.6	18.2	21.7	23.5
Eastern Interconnection	965	745	589	565	502

Table 13. Modeling Case B CO2 Emissions (Million Tons)

State	2028	2030	2032	2035	2037
CT	7.1	3.2	3.3	3.6	3.4
DE	1.27	1.12	0.34	0.48	0.38
ME	0.5	0.2	0.4	0.5	0.2
MD	3.0	3.1	3.2	4.0	1.9
MA	5.3	3.7	4.2	5.1	2.3
NH	1.0	0.8	1.0	1.6	0.7
NJ	11.4	9.9	7.1	8.9	7.4
NY	9.6	6.6	5.7	5.6	5.1
RI	2.4	1.7	1.9	2.5	1.3
VT	-	-	-	-	-
10-State Total	41.6	30.5	27.2	32.3	22.7
Canada Eastern Interconnect + Quebec	14.8	15.0	16.3	13.8	14.2
New York - NYISO	9.6	6.6	5.7	5.6	5.1
ISONE	16.3	9.7	10.8	13.3	8.0
Non-RGGI PJM	431	350	287	273	242
RGGI PJM	15.7	14.2	10.7	13.5	9.6
Eastern Interconnection	965	745	589	565	502

6.3.3 Modeling Case B Cost of Compliance

Under Reference Case B, CO_2 allowance prices (the cost of complying with RGGI) are fairly constant throughout the modeling timeframe and are at $2.52/ton (2022 dollars) in 2037, which is the Minimum Reserve Price (MRP). The allowance price is at the MRP because the emissions cap is not binding under this scenario. Under Modeling Case B, CO_2 allowance prices are projected to increase from approximately $8.55/ton (2022 dollars) in 2028 to about $13.03/ton in 2037. The allowance price data is based on the IPM® output for the Reference and Model Rule Modeling Cases and is displayed in Table 14 below.

Table 14. RGGI CO2 Allowance Price and Delaware Wholesale Energy Prices

RGGI Allowance Prices (2022$/Ton)	2028	2030	2032	2035	2037
Reference Case B	$2.50	$2.51	$2.52	$2.52	$2.52
Modeling Case B	$8.55	$9.39	$10.31	$11.86	$13.03
Delaware Energy Prices (2022$)	2028	2030	2032	2035	2037
Reference Case B	$26.77	$25.81	$24.47	$29.14	$31.42
Modeling Case B	$28.02	$27.99	$26.72	$31.66	$32.26

Under Modeling Case B, Delaware's wholesale electricity prices are projected to be $0.84/MWh (2022 dollars) higher in 2037 than in Reference Case B. Additional

information about estimated bill impacts are described Section 10.0.

6.3.4 Modeling Case A Generation Mix

Renewable generation stays relatively constant in Reference Case A, since State clean energy programs are assumed not to foster significant additional resources beyond what is currently contracted. As a result, fossil-based generation increases slightly by 53% from 4,017 GWh in 2028 to 8,528 GWh in 2037 under this scenario.

In Modeling Case A, generation from solar, wind, and other renewables remain constant from 600 GWh in 2028 to 601 in 2037.

Generation from fossil fuel units grows 12% from 2028 to 2037 in Modeling Case A but 53% in Reference Case A. As a result, fossil-based generation is 7,014 GWh lower in 2037 in Modeling Case A than in Reference Case A. In Reference Case A, Delaware is a net importer of 4 TWh in 2037. In Modeling Case A, Delaware is a net importer of 11 TWh in 2037. This generation data was based on the differences between IPM® output for Reference Case A and Modeling Case A, which are displayed in Tables 15 and 16.

Table 15. Delaware Reference Case A Net Generation (GWh)

Capacity Type:	**2028**	**2030**	**2032**	**2035**	**2037**
Combined Cycle	3,348	7,108	4,797	7,651	7,875
Combustion Turbine	28	30	126	65	11
Oil/Gas	41	41	43	41	41
Solar PV	552	552	552	552	552
Onshore Wind	5	5	5	5	5
Offshore Wind	-	-	-	-	-
Other RE	43	43	43	43	43
Total Generation	4,017	7,779	5,566	8,357	8,528

Table 16. Delaware Modeling Case A Net Generation (GWh)

Capacity Type:	**2028**	**2030**	**2032**	**2035**	**2037**
Combined Cycle	594	719	793	854	854
Combustion Turbine	15	28	37	15	7
Oil/Gas	81	75	76	78	68
Solar PV	552	552	552	552	552
Onshore Wind	5	5	5	5	5
Offshore Wind	-	-	-	-	-
Other RE	43	43	44	45	45
Total Generation	1,273	1,404	1,490	1,531	1,514

6.3.5 Modeling Case A Emissions Impact

CO_2 emissions in Delaware are projected to be 2.8 million tons lower in Modeling Case A than in the Reference Case A in 2037. Over the 2028-2037 time period, cumulative CO_2 emission reductions from Delaware are projected to be 24 million tons lower in Modeling Case A as compared to Reference Case A. Emissions from affected sources across the RGGI region are estimated to be 277 million tons (48%) lower under Modeling Case A than under Reference Case A for the 2028-2037 period. This emissions data is based on the differences between IPM® output displayed Tables 17 and 18.

Table 17. Delaware Reference Case A CO2 Emissions (Million Tons)

	2028	2030	2032	2035	2037	Cumulative (2028-2037)
CT	7.8	6.9	5.8	4.4	4.5	55
DE	1.5	2.9	2.0	3.1	3.1	27
ME	0.8	0.1	0.2	0.5	0.3	4
MD	4.0	4.0	4.3	4.8	4.3	44
MA	5.7	5.5	5.2	5.6	5.2	55
NH	1.2	1.0	1.3	1.6	1.3	13
NJ	16.5	15.4	14.3	17.4	17.1	163
NY	15.0	16.5	17.7	21.2	22.7	191
RI	2.5	2.5	2.6	2.9	2.5	27
VT	-	-	-	-	-	-
Total RGGI Affected Emissions	54.9	54.8	53.5	61.4	61.1	578
Canada Eastern Interconnect + Quebec	14.8	15.0	16.1	13.3	13.4	144
New York - NYISO	15.0	16.5	17.7	21.2	22.7	191
ISONE	17.9	16.0	15.1	15.0	13.8	154
RGGI PJM	22.0	22.3	20.6	25.3	24.6	233
Total Eastern Interconnect Emissions	991	729	602	584	519	6,507

Table 18. Delaware Modeling Case A CO2 Emissions (Million Tons)

	2028	2030	2032	2035	2037	Cumulative (2028-2037)
CT	7.1	4.0	4.7	3.0	3.0	39
DE	0.3	0.3	0.3	0.3	0.3	3
ME	0.3	-	0.2	0.2	-	2
MD	0.8	0.5	1.2	1.6	1.0	12
MA	5.0	3.7	4.2	4.3	3.1	41
NH	0.7	0.7	0.9	0.9	0.2	8

	2028	2030	2032	2035	2037	Cumulative (2028-2037)
NJ	6.0	5.5	5.1	5.9	5.8	56
NY	12.2	10.2	10.6	12.5	13.0	117
RI	2.4	2.1	2.5	2.4	1.6	23
VT	-	-	-	-	-	-
Total RGGI Affected Emissions	34.6	27.0	29.8	31.2	28.0	301
Canada Eastern Interconnect + Quebec	15.4	15.0	16.7	13.6	14.9	148
New York - NYISO	12.2	10.2	10.6	12.5	13.0	117
ISONE	15.5	10.5	12.5	10.9	7.9	113
RGGI PJM	7.0	6.3	6.6	7.8	7.1	71
Total Eastern Interconnect Emissions	993	722	597	573	502	6,424

6.3.6 Modeling Case A Cost of Compliance

Under Reference Case A, CO_2 allowance prices are relatively constant throughout the modeling timeframe and are at $2.52/ton (2022 dollars) in 2037, which is less than the MRP. Again, the allowance price is at the MRP because the emissions cap is not binding under this scenario. Under Modeling Case A, CO_2 allowance prices are projected to increase from approximately $19.40/ton (2022 dollars) in 2028 to about $28.20/ton in 2037. The allowance price data is based on the IPM® output for the Reference and Model Rule Modeling Cases and is displayed in Table 19.

Table 19. RGGI CO2 Allowance Price and Delaware Wholesale Energy Prices

RGGI Allowance Prices (2022$/Ton)	2028	2030	2032	2035	2037
Reference Case A	$2.50	$2.51	$2.52	$2.52	$2.52
Modeling Case A	$19.40	$20.99	$22.71	$25.57	$28.20
Delaware Energy Prices (2022$)	2028	2030	2032	2035	2037
Reference Case A	$26.45	$25.16	$29.55	$34.94	$35.27
Modeling Case A	$30.73	$30.26	$33.42	$38.04	$38.48

Under Modeling Case A, Delaware's wholesale electricity prices are projected to be $3.21/MWh (2022 dollars) higher in 2037 than in Reference Case A. Additional information about estimated bill impacts are described below.

7.0 Regional and Delaware Macro-Economic Impacts

The IPM® and the REMI macroeconomic model was also used to project electricity sector and economic impacts of numerous proposed potential policy change scenarios. Impacts of these potential policy change scenarios were compared against the current RGGI program. Sensitivity analyses were conducted to examine impacts resulting from changes in key input variables such as relative fuel prices, and electricity load projections. The IPM® model outputs were then used as inputs to economic analyses including REMI macroeconomic modeling and customer bill impact analyses.[42]

The macroeconomic results reflect the potential impacts associated with the revisions to the Program (including the investment of auction proceeds in an estimated portfolio of energy efficiency, clean energy and carbon abatement programs). As with other analysis that supported the program review, REMI modeling included two Modeling cases, one of which assumes full on-time achievement of state clean energy deployment targets (Case B), and one of which assumes clean energy additions are mostly limited to currently contracted renewables (Case A), though the model also allowed for some renewable energy additions when it is economic to do so.

The REMI modeling showed regional economic impacts (cumulative change in Gross State Product, cumulative change in employment, and cumulative change in real personal income) resulting from the changes to the regional cap beginning in 2027.[43]

The study also provided state specific results. The study estimates that the cumulative changes in Delaware's Gross State Product (GSP) and Disposable Personal Income (DPI) associated with the revisions to the Program will be about $350 million and $249 million, respectively, for Case A[44]. The study estimates that the cumulative changes to Delaware's Gross State Product and Personal Income associated with revisions to the Program will be about $314 million and $413 million, respectively, for Case B. In the context of Delaware's total Gross State Product and total Personal Income these changes represent small but positive changes.

[42] IPM® modeling results are available at the RGGI Website at: https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/RGGI_Program_Review_IPM_Results.xlsx

[43] REMI modeling results are available at the RGGI Website at: https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/RGGI_Econ_Modeling_Results.pdf

[44] 2022 dollars, calculated as the present value of estimated annual changes over the period 2025 to 2040, discounted at 3% per year to account for the time-value of money.

Table 20. Annual Impacts Over Modeling Period: Delaware, Incremental over Reference Case

Metric	Unit	Case	2025	2027	2030	2035	2037	2039	2040	Total*
Employment	Jobs	Case A	142	308	174	142	109	364	418	**3,032**
		Case B	118	283	198	88	43	-19	-40	**1,759**
	% Change from Reference Case	Case A	0.021%	0.046%	0.025%	0.020%	0.016%	0.051%	0.059%	**0.027%**
		Case B	0.018%	0.042%	0.029%	0.013%	0.006%	-0.003%	-0.006%	**0.016%**
GSP	Millions of Fixed 2022$	Case A	$18	$35	$17	$15	$9	$52	$60	**$350**
		Case B	$20	$39	$30	$19	$13	$3	-$1	**$314**
	% Change from Reference Case	Case A	0.019%	0.035%	0.016%	0.013%	0.008%	0.043%	0.049%	**0.020%**
		Case B	0.021%	0.039%	0.028%	0.017%	0.011%	0.002%	0.000%	**0.018%**
DPI	Millions of Fixed 2022$	Case A	$21	$16	$7	$17	$3	$34	$43	**$249**
		Case B	$36	$37	$28	$32	$19	$9	$5	**$413**
	% Change from Reference Case	Case A	0.035%	0.025%	0.011%	0.022%	0.004%	0.041%	0.051%	**0.021%**
		Case B	0.059%	0.058%	0.040%	0.041%	0.024%	0.011%	0.006%	**0.035%**

Table 21. Annual Impacts Over Modeling Period: Delaware, Incremental over Reference Case (Current RGGI Price Scenario)

Metric	Unit	Cumulative		Average Annual	
		Case A	Case B	Case A	Case B
Employment	Job-Years	3,032	1,759	190	110
	% Change from Reference Case	0.027%	0.016%	0.027%	0.016%
	Reference Case Level (Thousands)	11,052		691	
GSP	Millions of Fixed 2022$	$277	$269	$17	$17
	% Change from Reference Case	0.020%	0.019%	0.020%	0.018%
	Reference Case Level	$1,416,986		$88,562	
DPI	Millions of Fixed 2022$	$195	$347	$12	$22
	% Change from Reference Case	0.021%	0.037%	0.021%	0.037%
	Reference Case Level	$929,632		$58,102	

The modeling for the proposed RGGI program from 2021-2030 matches independent economic analysis that has found a positive economic effect from RGGI. In 2023, the Analysis Group conducted an independent economic analysis of the RGGI program's most recent three-year compliance period (2018-2020).

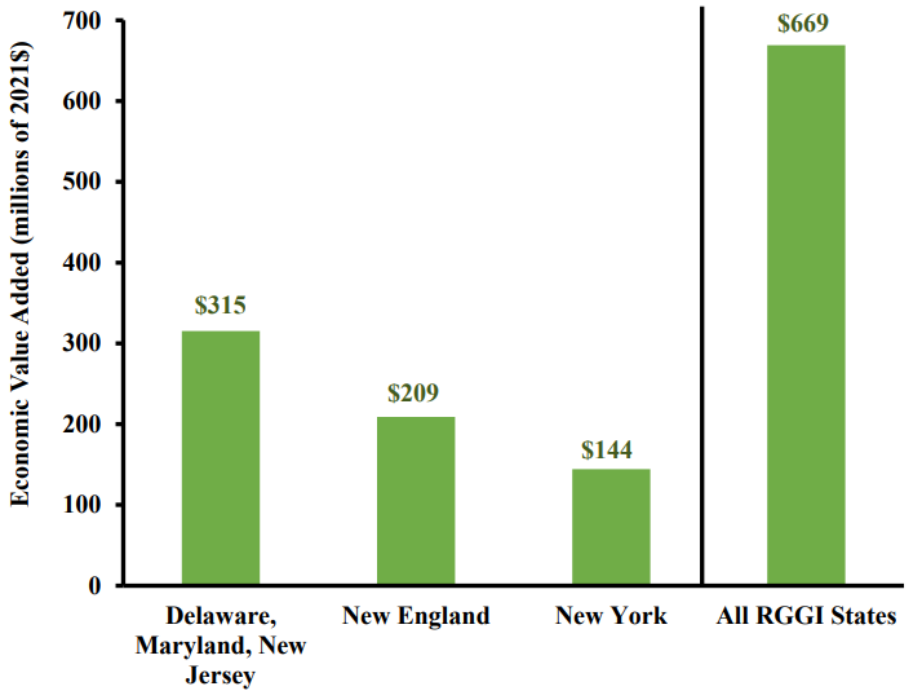
> "Consistent with our previous reports, we find that RGGI member states experienced net economic benefits over the last three years (2018-2020) after accounting for both direct program spending and the impacts of RGGI on the power sector. Overall, RGGI led to $669 million (net present value or "NPV") of total economic activity in the ten state region over the 2018-2020 time period.[45]"

Figure 8 shows the net economic value to the ten state RGGI region as a whole, with results also broken out by power system region (with the six New England states participating in the ISO-NE electrical region, New York participating in the one-state NYISO system, and Maryland, Delaware, and New Jersey participating in the multi-state PJM power system). Additional reports and analysis by the Analysis Group for the first, second and third year compliance period are available on their website.

Analysis Group (AG) found – "While RGGI contributed to a 46% reduction in carbon emissions, the AG Reports have consistently found that RGGI delivered net economic benefits to the RGGI states. In short, we have found that across all four compliance periods – the period 2009-2020 – RGGI has delivered $475 million in economic benefits and 4,000 incremental job-years per year to the RGGI states."

[45] The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States – Review of RGG's Third Three-Year Compliance Period (2018-2020). Analysis Group. May 2023. Retrieved from https://www.analysisgroup.com/globalassets/insights/publishing/2023-ag-rggi-report.pdf.

These net economic benefit estimates capture the direct impacts of RGGI spending, along with producer-to-producer supply-chain linkages and changes in spending due to changes in household income. Together, these dollar flows have direct and indirect multiplier effects locally and regionally.[46] The size of RGGI's economic impacts varies by state, in large part because the states spent their RGGI auction proceeds in different ways, tailored to each state's economic, energy, and climate policy goals.[47] Different expenditures have different direct and indirect effects on their economies and on their electric systems. For example, a state's use of RGGI dollars to pay for energy efficiency (EE) measures or renewable energy (RE) facilities will tend to lower electricity prices in wholesale power markets (as compared to a "without-RGGI" scenario). This in turn places downward pressure on consumers' electricity bills over time.



Notes: [1] Figures are reported in 2021 dollars (NPV), converted using a 3-percent public discount rate. [2] Total economic value added reflects the impacts of the direct spending of RGGI proceeds, net electric sector impacts to consumer payments, net impacts to power plant owner profits, changes in capacity payments, and consumer benefits from natural gas savings associated with energy efficiency investments funded with RGGI auction proceeds.

Figure 8. Net Economic Impact of the Implementation of RGGI During the 2018-2020 Period (Analysis Group)

[46] Analysis Group's macroeconomic analysis captures all regional impacts of a single state's spending for the ten RGGI member states.

[47] Overall, the distribution of spending across the RGGI states for the 2018-2020 period was: 41% on EE; 17% on RE projects; 17% on direct bill assistance to consumers; 6% on program administration; 13% on GHG-emission reduction programs; and the remainder on other programs. Individual state expenditures varied significantly across these categories.

8.0 RGGI Auction Proceeds Investment

Proceeds from the CO_2 allowance auctions benefit Delawareans through investments in programs for energy efficiency improvements and by accelerating the deployment of renewable energy technologies. Programs funded with RGGI proceeds have spanned a wide range of consumers, providing benefits to Delaware households, businesses, low-income housing, industrial facilities, community centers, retail customers, and others.

RGGI, Inc. released *The Investment of RGGI Proceeds in 2024* report[48] in June 2026, reviewing investments and benefits from RGGI-funded programs in 2024. In 2024, RGGI states reinvested $847 million in RGGI proceeds into programs that reduced harmful CO_2 emissions while spurring local economic growth. The lifetime effects of 2024 RGGI investments are projected to avoid the release of 4.3 million short tons of carbon emissions regionally. RGGI-funded programs also save consumers and businesses money, create jobs, and provide targeted assistance to low-income communities throughout the RGGI region.

RGGI investments in 2024 are estimated to return $2.6 billion in lifetime energy bill savings to 148,000 households and over 2,600 businesses that participated in programs funded by RGGI proceeds, while over 1.8 million households and 164,000 businesses received direct bill assistance in 2024. As a whole, the RGGI states have reduced power sector CO_2 emissions by about 50% since 2005, while the region's gross domestic product has continued to grow.

More than $5 billion in RGGI auction proceeds have been invested in energy efficiency, clean and renewable energy, greenhouse gas abatement, and direct bill assistance across the region since the program's inception. Energy efficiency and clean and renewable energy receive the largest share of investments.

Each state invests RGGI auction proceeds in a manner that is unique to the needs and priorities of the state's residents and energy system. The statute[49] that authorized Delaware's participation in RGGI stipulated how auction proceeds would be invested. The majority of proceeds go to the Delaware Sustainable Energy Utility, a state-established non-profit organization who runs energy programs. Proceeds also are designated to the state DNREC and the Department of Health and Social Services for energy and greenhouse gas abatement programs. Seventy-two percent of RGGI funds invested in Delaware since inception of the program have been invested in energy efficiency programs. Investments in energy efficiency are among the most cost effective

[48] The Investment of RGGI Proceeds in 2024. June 2026 Retrieved from Investments of Proceeds | RGGI, Inc.
[49] Regional Greenhouse Gas Initiative and CO2 Emission Trading Program. 7 Del. Code 6046. Retrieved from https://delcode.delaware.gov/title7/c060/sc02a/index.html.

and economically beneficial energy investments. Every dollar invested in energy efficiency can yield between 3-5 dollars in economic returns.[50]

A summary of Delaware's proceed investments is below:

8.1 Delaware's Sustainable Energy Utility – ENERGIZE DELWARE™

Delaware directs 65% of its RGGI proceeds to energy efficiency and renewable energy programs administered by the Delaware Sustainable Energy Utility (SEU). The SEU is a unique non-profit organization that serves Delawareans by promoting the use of affordable clean energy technologies and providing a variety of incentives for energy efficiency improvements. These programs help Delawareans save money, create jobs, and reduce greenhouse gas emissions and energy use.

Through Energize Delaware, the SEU offers a comprehensive suite of programs, including energy audits that identify where homes or buildings are losing energy; rebates on recommended upgrades such as heating or cooling systems, water heaters, air sealing, and insulation; low-interest loans or grants for energy efficiency improvements and renewable energy projects; programs for low-income households; and access to quality contractors to perform the work. Additional information on individual programs funded in 2025 is available in the SEU Annual Report.[51]

8.2 DNREC Programs

Delaware's Weatherization Assistance Program receives 10% of Delaware's RGGI proceeds and an additional 10% of Delaware's RGGI proceeds are re-invested in greenhouse gas emissions reduction programs administered by DNREC. DNREC also receives 10% of proceeds to administer the RGGI program. The programs funded in 2024 are outlined:

DNREC Weatherization Assistance Program: The program lowers household energy bills, addresses health, safety, and indoor air quality concerns, and reduces greenhouse gas emissions by providing no-cost home energy upgrades to eligible households. The program also provides residents with educational materials and guidance on how to conserve energy and reduce costs. In 2024, the program reached its highest activity level to date, with more than 400 households served.

DNREC Clean Vehicle Rebate Program: DNREC allocates $4 million each year towards consumer rebates for purchase or lease of new or used electric and plug-in hybrid vehicles. Transportation is the largest source of greenhouse gas emissions in the

[50] EPA Local Benefits of Energy Efficiency and Opportunities. March 2026 Retrieved from https://www.epa.gov/statelocalenergy/local-energy-efficiency-benefits-and-opportunities
[51] Energize Delaware Annual Report – 2025. April 2026. Retrieved from https://energizedelaware.org/2025-annual-report-launched/.

state, and emissions from passenger vehicles are the largest component of transportation emissions. Transitioning to electric vehicles is the state's largest opportunity for emission reductions. In 2024 issued 1,688 rebates totaling $3.57 million.

8.2.1 DNREC Clean Vehicle Rebate Program - DNREC

DNREC EV Charging Station Rebates[52]: Reliable access to charging is critical to electric vehicle adoption; this program expands access to Level 2 charging infrastructure by providing incentives for home charging and DC-Fast charging equipment. The 6th funding round operated between May 2023 and April 2025, with a total allocation of $1 million. In 2024, the program allocated $270,000 towards charging station projects.

DNREC Cool Switch Low-Impact Refrigerant Program[53]: This program incentivizes commercial and industrial customers to adopt refrigerants with low global warming potential (GWP). Customers must be non-residential and use at least 50 pounds of refrigerant across their facilities. The new refrigerants can be part of retrofitting existing equipment or installing new refrigeration systems. Eligible refrigerants must have a GWP of less than 1,500 and must not appear on the DNREC Division of Air Quality's prohibited HFC list. The state allocated $1 million for this program.

- Since its launch, the program has awarded $421,000 in rebates to nine projects, with an additional $145,000 reserved for three projects currently under construction.
- In 2024, the Cool Switch program awarded $31,392.97 to five projects.

DNREC staff monitor the success and reach of programs and periodically adjust program guidance, incentive rates, and eligibility requirements based on market conditions, changes to other funding sources (like federal tax incentives), new technologies, availability of funds, and other factors.

8.2.2 Delaware Department of Health and Social Services (DHSS)

Delaware directs 5% of its RGGI proceeds to a direct bill assistance program administered by DHSS. The Low-Income Home Energy Assistance Program[54] (LIHEAP) provides financial aid to eligible low-income households to help offset home heating and cooling costs. The program offers direct energy bill payments, crisis assistance to prevent utility shut-offs, and emergency fuel deliveries during extreme weather.

---

[52] The Delaware Clean Vehicle Rebate Program. DNREC. May 2026. Retrieved from The Delaware Clean Vehicle Rebate Program - DNREC.
[53] Cool Switch Low-Impact Refrigerant Program. DNREC. May 2026. Retrieved from Cool Switch Low-Impact Refrigerant Program - DNREC
[54] Low Income Home Energy Assistance Program. DHSS. May 2026. Retrieved from Low Income Home Energy Assistance Program (LIHEAP) – DHSS

9.0 Small Business Impact Statement

Beginning January 1, 2016, agencies submitting proposed new or amended regulations that affect small businesses or individuals are required, under the new Regulatory Transparency and Accountability Acts of 2015 (see 80 Del. Laws, c. 112 and 113), to submit a Regulatory Flexibility Analysis (RFA) and a Regulatory Impact Statement (RIS) with the proposed regulation to the Registrar of Regulations (see 29 Del.C. Ch. 104).

For agencies proposing amendments to existing regulations, the promulgating agency shall only be required to complete the RFA and RIS for the proposed amended portion of the existing regulation, and not for the entire existing regulation.

In each RFA, an agency must consider, where applicable, lawful, feasible and desirable, specific methods of reducing the burdens of the regulation on individuals and/or small businesses, including:

1. Establishing less stringent requirements and deadlines;
2. Establishing performance standards to replace design standards;
3. Exempting individuals and small businesses from all or part of the regulation; and
4. Examining other ways to accomplish the regulation's purpose, while minimizing the impact upon individuals and/or small businesses.

Among other things, each RIS must:

1. Describe the purpose of the regulation;
2. Identify the individuals and/or small businesses subject to it;
3. Provide an estimate of the potential costs of compliance; and
4. Describe any less intrusive or less costly alternative methods of achieving the purpose of the regulation.

The regulatory requirements for this regulation apply only to electricity generators in the state who produce more than 25MW of power annually and burn fossil fuel. No small businesses fall within this category and therefore, there is no compliance obligation or burden to be met by any of Delaware’s small businesses or individuals. The RFA/RIS was published on July 1, 2026 in the Delaware Registrar.

Table 22. Delaware Compliance Entities subject to 7 DE ADMIN. CODE 1147

Compliance Facility	Number of Units	Nameplate Capacity (MW)
Constellation Christiana Substation	2	29, 29
Constellation Edge Moor	3	75, 177, 446
DCO Energy Garrison Energy Center	1	309
Constellation Hay Road	6	115, 115, 115, 115, 122, 122
City of Dover- McKee Run	1	114[55]
City of Dover- Van Sant	1	45
DEMEC- Warren F. Sam Beasley	2	45, 50
Delaware City Refinery	6	28, 28, 63, 63, 90, 90
Dover Energy Center	2	50, 50
NRG- Indian River	4	82, 82, 177, 442[56]

[55] Unit shutdown in 2021.
[56] Units 1-3 shutdown in 2010. Unit 4 shutdown February 2025.

10.0 Delaware Rate Payer Impacts and Bills Analysis

Bill impact analysis[57] estimated the program amendments impact by modeling two scenarios against reference cases – Case A and Case B[58]. Comparing Case A (the more pessimistic scenario) to its reference case that the average commercial customer monthly electric bill of $346 would increase slightly by $12.76 (3.8%) and industrial customer's bill would increase by 5.6%.

Modeling indicates small impacts to residential, commercial and industrial bills. Modeling further shows that these bill impacts are significantly mitigated when states choose to invest proceeds in energy efficiency and beneficial electrification and when states continue to invest overall in rapid deployment of additional renewable/carbon free energy sources.

Table 23. Delaware Rate Payer Class Bills based upon Modeling Case A.
Case A – No Reinvestment of RGGI Proceeds

Customer Class	Modeling Case A	Reference Case A	Monthly Difference	Percent Difference
Residential	$89.12	$85.69	$3.43	4.00%
Commercial	$358.13	$355.54	$22.59	6.73%
Industrial	$8,225.07	$7,484.65	$740.42	9.89%

Case A – Projected State-Level Bill Assistance

Customer Class	Modeling Case A	Reference Case A	Monthly Difference	Percent Difference
Residential	$89.01	$85.67	$3.34	3.90%
Commercial	$357.39	$355.42	$21.98	6.55%
Industrial	$8,200.79	$7,480.52	$720.26	9.63%

Case A – Projected State-Level Bill Assistance, Energy Efficiency Spending and Beneficial Electrification Spending

Customer Class	Modeling Case A	Reference Case A	Monthly Difference	Percent Difference
Residential	$87.32	$85.38	$1.94	2.27%
Commercial	$346.29	$333.53	$12.76	3.83%
Industrial	$7,836.48	$7,418.62	$417.85	5.63%

Whereas, Case B (increased investments in energy efficiency and renewable energy), shows less impact on rate class bills. Overall RGGI-induced economic impacts are minor, reflecting that the pace of economic growth in this region will not be disrupted by these changes. Both Cases A and B lead to net benefits for the RGGI economy.

[57] DE's bills analysis results for Average Bill Impacts by Case, Customer Class and Reinvestment Scenario: 2028-2037.
[58] Two policy cases, one of which assumes full on-time achievement of state clean energy deployment targets (Case B), and one of which assumes clean energy additions are mostly limited to currently contracted renewables (Case A), though the model also allowed for some renewable energy additions when it is economic to do so.

Investments in beneficial electrification and energy efficiency reduce energy consumption and lead to consumer savings producing positive economic benefits.

Table 24. DE Average Bill Impacts by Case, Customer Class, and Reinvestment Scenario: 2028-2037

Case B – No Reinvestment of RGGI Proceeds

Customer Class	Modeling Case B	Reference Case B	Monthly Difference	Percent Difference
Residential	$84.62	$82.90	$1.72	2.07%
Commercial	$328.48	$317.17	$11.30	3.56%
Industrial	$7,301.78	$6,929.26	$372.52	5.38%

Case B – Projected State-Level Bill Assistance

Customer Class	Modeling Case B	Reference Case B	Monthly Difference	Percent Difference
Residential	$84.58	$82.89	$1.69	2.04%
Commercial	$328.23	$317.08	$11.15	3.52%
Industrial	$7,293.64	$6,926.23	$367.41	5.30%

Case B – Projected State-Level Bill Assistance, Energy Efficiency Spending and Beneficial Electrification Spending

Customer Class	Modeling Case B	Reference Case B	Monthly Difference	Percent Difference
Residential	$84.02	$82.68	$1.34	1.62%
Commercial	$324.52	$315.70	$8.82	2.79%
Industrial	$7,171.56	$6,880.83	$290.73	4.23%

Notes: [1] “Case A" and "Case B" include alternative assumptions regarding state-level policy drivers. “(Exp)” refers to the RGGI Exploratory Policy while "(Flat Cap)" refers to the reference scenario. [2] 2023 usage was calculated from Type A Utilities (bundled generation and transmission) and Type B Utilities (generation only). 2023 historical transmission and delivery rates were calculated from Type C utilities (transmission only). [3] Future electricity consumption is assumed to grow at the same rate as IPM®'s Case A or Case B load forecast. [4] Reinvestment scenarios reflect alternative assumptions regarding the impact of state-level projected spending of RGGI proceeds on consumer electric bills. Energy efficiency and beneficial electrification is modeled as a volumetric credit to electricity customers.

11.0 Recent Delaware Electricity Bill Impacts (2023-present)

Beginning in 2020, Delaware electricity ratepayers along with the rest of the nation began to experience increases in the retail cost of electricity. EIA data present rising retail electricity prices for all rate payers beginning in the period following the COVID pandemic in 2020.[59] Electric bills are composed of three primary components – energy supply, transmission and distribution charges. Energy supply is the cost to generate the electricity. Transmission is the cost to move electricity from the point of generation to local systems. Distribution moves electricity from the regional transmission system to our homes and businesses.

The cost of RGGI compliance is paid by electricity generators in the Participating States. Delaware is a net electricity importer, meaning that the electricity generated in-state is not adequate to meet the needs of state electricity users. Approximately 60-80% of the electricity Delawareans use comes from out of state, including from states who also participate in RGGI. The driving force behind recent bill increases were in Transmission & Distribution and the impact of changes to PJMs capacity auction[60]. RGGI is not the cause of recent high bills.

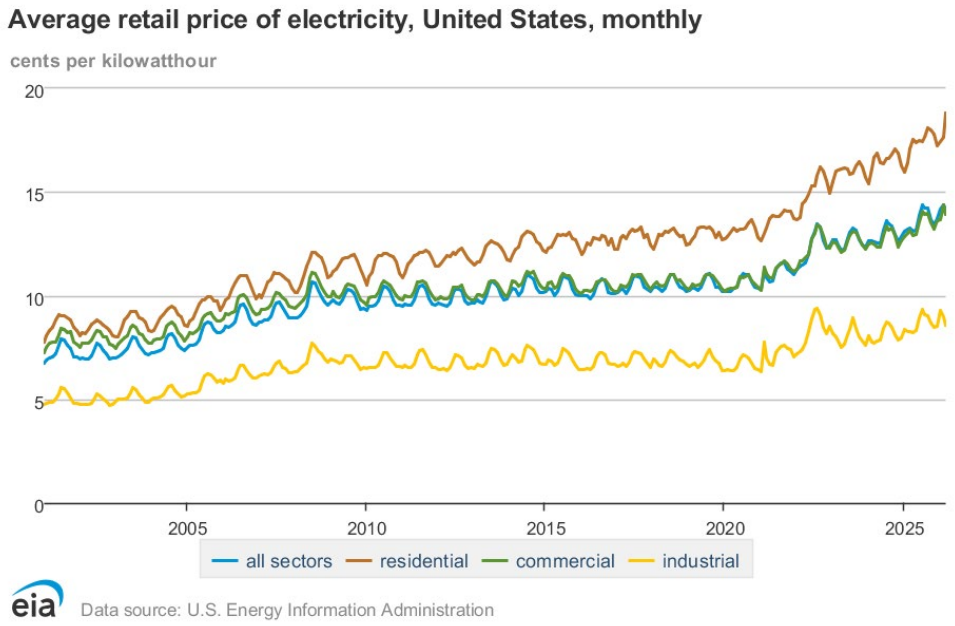


Figure 9. Average Retail Electricity Price in 2024 and the Change in Average Retail Electricity Prices: 2019-2026

[59] EIA. 2025b. Electricity Data Browser. Energy Information Administration. Retrieved from https://www.eia.gov/electricity/data/browser/〉

[60] 2026/2027 Base Residual Auction Report. PJM 2025. Retrieved from https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2026-2027/2026-2027-bra-report.pdf.

Delmarva Power and Light (DPL) is Delaware's largest energy provider and is regulated by the Public Service Commission (PSC). DPL does not generate power, nor does it own electric generators. DPL is not subject to 7 **DE Admin. Code** 1147.

As a regulated utility, DPL is subject to the oversight of the PSC at the state level and the Federal Energy Regulatory Commission (FERC) at the federal level. The PSC determines the standards for performance and reliability DPL must meet in Delaware and determines the Distribution rates DPL may charge its customers. DPL purchases electricity from electricity generators and establishes the energy supply prices through contractual agreements that become the Standard Offer of Service (SOS). The SOS is approved by the Public Service Commission annually. Also, included in the Delivery Charge on DPL bills are public policy programs approved by the General Assembly like the Green Energy Fund, Renewable Portfolio Standards Charge and Low-Income Fund.

Delaware' Public Advocate recently published a report[61] discussing the increases in DPL customer bills. The findings of the report showed:

> "An overall increase in rates since 2005. Distribution rates have doubled for residential customers over the last 20 years, driven by a significant increase in infrastructure spending. Transmission rates held largely steady from 2014-2020 but have doubled since 2020. Supply rates decreased from 2010 through 2020, helping to offset increases in the other rate components.
>
> But [Electricity] Supply rates have increased by 87% – 103% since 2020, depending on rate class and season. In other words, prior to 2020, increases in Distribution rates were offset by a decrease in Supply rates while Transmission rates held steady. Since 2020, however, all three rate components have increased dramatically, driving up DPL customers' total electricity bills".

Additionally, the report's Key Findings stated:

- Since 2009, the PSC has approved a total of $153 million in annual revenue increases for DPL, meaning an additional $153 million is paid by DPL electric customers to DPL now as compared to 2009 (these Distribution rate increases are separate from any Transmission or Supply increases).
- DPL's December 2022 rate increase request was its largest, seeking a $72.3 million increase and being awarded a $42.5 million increase. DPL's December 2025 rate increase request is its second largest, seeking $67.8 million, which is still pending.
- Since 2009, DPL has filed eight base rate increase requests. The rate increases awarded by the PSC average $21.9 million increase per filing.

[61] State of Delaware – Division of the Public Advocate. April 2026. Retrieved from - https://publicadvocate.delaware.gov/historical-review-of-delmarva-power-electric-residential-rates/#

- Since 2021, DPL's annual spending on infrastructure has increased by 67.2%. Utilities seek to recover such investments through the rates paid by customers.
- Distribution rates have more than doubled for both Residential and Residential Space Heating customers since 2006.
- [Electricity] Supply rates declined from 2010 through 2020. Since 2021, however, Supply rates have doubled for both Residential and Residential Space Heating Customers.
    - For Residential customers summer rates have increased by 114.1% since 2021 (from $0.052148/kWh in 2021 to $0.111063/kWh in 2026). Winter rates have increased by 92.4% since 2021 (from $0.059285/kWh to $0.114049/kWh in 2026).
    - For Residential Space Heating customers summer rates have increased by 114.6% since 2021 (from $0.051753/kWh in 2021 to $110159/kWh in 2026). Winter rates have increased by 96.9% since 2021 (from $0.051041/kWh in 2021 to $0.1005155/kWh in 2026).
- Transmission rates showed little variation from 2014 through 2020. Since 2020, DPL transmission rates increased by 93.5% (from $2.99/kW in 2020 to $5.78262/kW in 2025) for both rate classes.

The purpose of RGGI is to decarbonize and reduce the amount of CO_2 emitted by the power sector. Some participants with Delaware's Energy Stakeholders Group and members of the public have previously stated in the Group's meetings that the cost of RGGI CO_2 allowances purchased by electricity generators in Delaware are incorporated into the supply costs to generate electricity and as a result are the primary driver to the increase electricity supply charges seen by DPL ratepayers.

As mentioned above, the electricity supply costs found in ratepayer bills include the cost of generating electricity. The primary factor influencing the cost of electricity generation is the cost of fuel. The PJM market monitor's 2026 Quarterly State of the Market Report for PJM: January through March[62] Table 3-71 estimates the percentage of carbon costs on the overall energy prices for the first quarter of 2026 at 2.1 percent with the cost of natural gas at 47 percent. The PJM market monitor further explains that the increased cost of natural gas in 2026 was a leading factor in energy costs.

Delmarva Power and Light (DPL) is the largest provider of electricity in Delaware[63]. DPL has made the following statements regarding the recent increases to rate payers in Delaware:

[62] 2026 Quarterly State of the Market Report for PJM: January through March retrieved from https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2026/2026q1-som-pjm.pdf
[63] Delmarva Power and Light territory map. DPL. 2026. Retrieved from Service Territory Map | Delmarva - An Exelon Company

> "A significant driver of higher electric bills is outside Delmarva Power's control: rising wholesale energy and capacity costs set by PJM Interconnection, the regional grid operator that manages electricity supply for 65 million people across 13 states. Those costs are increasing as demand for electricity grows — driven by data centers, electrification, and economic expansion — while older power plants retire faster than new generation comes online"[64].

It should be noted that any increase in the cost of compliance with environmental requirements is not a 1:1 cost transferred to ratepayers. Environmental compliance costs which include RGGI are included in the auction bids generators submit for PJM's wholesale electricity and capacity markets. PJM's market monitor report describes the various attributes that may be included in the cost of electricity.

Delaware's participation in RGGI is common sense as it creates a path toward a more stable climate, healthier air, a robust energy economy, and lower electricity bills. Because of the regional electricity market, Delaware would pay into RGGI regardless of whether or not we participate since we import power from plants that operate in other RGGI states. Leaving RGGI would result in the state losing millions of dollars every year for existing programs for weatherization, LIHEAP, and energy efficiency. In 2024, RGGI provided Delaware with over $57 million in funding for these programs. Continued participation in RGGI will provide ongoing funding for these important programs without the need to procure state funding.[65]

[64] Correcting the Record: Keeping the Lights on Requires Honest Conversations About Costs. DPL. 2026 Retrieved from Correcting the Record: Keeping the Lights on Requires Honest Conversations About Costs | The Source.
[65] The Regional Greenhouse Gas Initiative. Sierra Club – Delaware Chapter. 2026. Retrieved from https://www.sierraclub.org/sites/default/files/2025-04/the-regional-greenhouse-gas-initiative-rggi.pdf

12.0 Health Benefits

RGGI continues to provide public health benefits to Delaware and the region. An independent study[66] by Abt provides an analysis of the public health impacts of the RGGI over its first six years of implementation (2009 to 2014). The key findings of the report are summarized in Table 25.

Table 25. Summary of Cumulative RGGI Health Benefits, 2009 to 2014

<table>
<tr><td></td><td colspan="3">Avoided Mortality</td></tr>
<tr><td rowspan="6">Avoided Health Effects</td><td colspan="3">• 300–830 premature adult deaths</td></tr>
<tr><td colspan="3">Avoided Morbidity</td></tr>
<tr><td colspan="3">• 35–390 non-fatal heart attacks
• 420–510 cases of acute bronchitis
• 8,200–9,900 asthma exacerbations
• 13,000–16,000 respiratory symptoms</td></tr>
<tr><td colspan="3">Other</td></tr>
<tr><td colspan="3">• 180–220 hospital admissions
• 200–230 asthma ER visits
• 39,000–47,000 lost work days
• 240,000–280,000 days of minor restricted activity</td></tr>
<tr><td>Value of Avoided Health Effects</td><td>Low</td><td>Central</td><td>High</td></tr>
<tr><td></td><td>$3.0 billion</td><td>$5.7 billion</td><td>$8.3 billion</td></tr>
</table>

[66] Analysis of the Public Health Impacts of the Regional Greenhous Gas Initiative, 2009-2014. Abt Associates. January 2017. Retrieved from https://www.abtglobal.com/insights/publications/report/analysis-of-the-public-health-impacts-of-the-regional-greenhouse-gas .

Table 26. AbT Study - Delaware Health Impact modeling

Health Endpoint	Cases Avoided due to RGGI						
	2009	2010	2011	2012	2013	2014	Total
Acute Bronchitis	7	1	<1	2	3	2	**15**
Adult Mortality	5 - 12	1 - 2	0 - 1	1 - 3	2 - 5	1 - 3	**12 - 26**
Asthma ER Visits	2	<1	<1	1	1	1	**5**
Asthma Exacerbations	138	21	7	32	55	38	**290**
Cardiovascular Hospital Admissions	2	<1	<1	1	1	1	**4**
Infant Mortality	<1	<1	<1	<1	<1	<1	**<1**
Lower Respiratory Symptoms	89	14	4	21	37	26	**192**
Minor Restricted Activity Days	3,812	606	192	904	1,583	1,073	**8,171**
Non-fatal Heart Attacks	0.59 - 6	0 - 1	0 - 0	0 - 1	0 - 3	0 - 2	**1 - 12**
Respiratory Hospital Admissions	1	<1	<1	<1	<1	<1	**3**
Upper Respiratory Symptoms	127	20	6	30	53	37	**274**
Work Loss Days	638	101	32	151	264	179	**1,364**

13.0 Stakeholder and Public Participation

13.1 Regional Workshops

As noted elsewhere in this document, the amendments to DNREC regulation 1147 are derived from the third RGGI program review, a detailed multistate review of RGGI program performance and future trajectory. Between 2021 and 2025, as part of the program review process, six regional public workshops were held by the Participating States. These online workshops provided an early opportunity for stakeholder and public feedback into the process.

13.2 Key Stakeholders Meeting

One meeting was scheduled with Delaware stakeholders (March 26, 2026) to discuss the amendments to the RGGI Model Rule as well as receive stakeholder feedback. The meeting included a presentation on the updated RGGI Model Rule design elements as well as the economic modeling that was performed by RGGI Inc. to support program modifications. The presentation also included the proposed amendments to the program to be incorporated into 7 **DE Admin. Code** 1147.

13.3 Public Workshops

In addition to the six public stakeholder workshops held by the RGGI Participating States as part of the Third Program review, DNREC held a public workshop on April 30, 2026 to educate the public on the amendments made to the RGGI's Model Rule as they apply to Delaware's CO_2-Budget Trading Program. Comments on the draft regulation were accepted through May 15, 2026 and can be found in Section 15 of this report.

13.4 Public Hearing

The proposed amendments and public hearing announcement published in the Delaware Register of Regulations on July 1, 2026. A public hearing is scheduled for July 28, 2026. The public hearing will provide an opportunity for the public to submit verbal comments. In addition, written comments will be accepted until August 14, 2026.

DNREC published the public notice and announced the date for the public hearing on June 24, 2026, which was at least 30 days prior to holding the public hearing. The public hearing notice, proposed regulations and background document are available on DNREC's website at: Public Hearing: CO_2 Budget Trading Program - DNREC

13.5 Public Participation Documentation

Hearing exhibits, presentation slides, supporting documents, and comments received following the workshops are posted on the Department's Public Hearing website, under Docket # 2026-R-A-0003, for the July 28, 2026 hearing: https://dnrec.alpha.delaware.gov/public-hearings/.

14.0 Public Comments Received following the Public Workshop on April 30, 2026

Comment from Michael McDowell on May 4, 2026 via email:
From: Michael McDowell
Sent: Wednesday, April 29, 2026 10:50 AM
To: Shah, Yagna (DNREC) <yagna.shah@delaware.gov>; Michael McDowell; Charlotte Esther McDowell; Victor Singer; nancywilling57@gmail.com; William Dunn; Charles C. Stirk Jr.
Subject: RGGI prices have gone from $3.00 to $5.00 to $24.99 which is a 733% price increase when PJM's failed market design wholesale auction prices have gone from $28.92 MW-Day to $329.19 MW-Day and when the Data Center monopsony is driving delivery prices thr...

The convergence of the RGGI price spike and the PJM capacity market explosion has created what many call a "perfect storm" for Delaware utility bills. Your assessment of the percentage increases is accurate—the 2026-2027 PJM capacity price of $333/MW-day (up from $28.19 in 2024) represents a radical shift in energy economics.

1. Decreasing the Cap & Eliminating Offsets
The "Cap" is the total number of tons of \bm{CO_2} that all power plants in the region are allowed to emit combined.

• What it looks like: Starting in 2027, the cap will drop by roughly 10.5% per year. Imagine a musical chairs game where 10% of the chairs are removed every round. Because there are fewer "allowances" (chairs) available, power plants must bid more aggressively to get one, driving up the auction price.

• Impact of Eliminating Offsets: Currently, a plant can "offset" its emissions by investing in outside projects (like planting trees or methane capture at a farm). By removing offsets in 2027, DNREC is forcing plants to either physically pollute less or buy more expensive allowances. There is no longer a "cheap" alternative way to comply.

2. Can Delmarva Build Its Own Renewables?
This is a critical point of debate in Delaware right now.

• The Barrier: Historically, Delaware law and "deregulation" prevented utilities like Delmarva Power from owning power plants (generation). They were forced to only "deliver" power bought from others.

• The Shift: Because of the price spikes you noted, there is a push (supported by some state officials) to allow Delmarva to build "regulated generation." This would allow them to build their own solar, wind, or hydrogen plants.

• Distribution" or "Base Rate" side of your bill. You et Stabilizers: "Rigging" vs. "Managing"

The replacement of the Emissions Containment Reserve (ECR) with a higher minimum floor price (set to be $9.00 in 2027) essentially creates a "price floor."

• By setting a high floor, the state is effectively ensuring that the price cannot fall back to $3.00, regardless of demand. In a true market, if a plant becomes hyper-efficient, the price should drop. By fixing the floor, the state ensures a steady stream of revenue for its own programs (like Energize Delaware) at the expense of the ratepayer.

Bidding by Non-Compliance Entities (Speculators)
• The "Retire" Strategy: Some non-profits bid to "retire" allowances specifically to keep \bm{CO_2} out of the air. This reduces the supply for power plants, driving the price up.

• The "Cornering" Risk: Financial speculators buy allowances as an investment, betting the price will go up. When they "hold" thousands of allowances, it creates a shortage, which forces power plants to pay record-high prices (like the $24.99 you saw).

• The Consequence: Because utilities are legally allowed to pass "prudent" costs to you, they don't have a strong incentive to fight these prices—they simply pass the bill to the customer.

The Regressive Reality
These increases are unreasonable and unjust regressive taxes. A $50 increase in a monthly electric bill is a minor inconvenience for a high-income household but a crisis for a middle class or working family or people on a fixed income.

Respectfully Submitted
Michael L McDowell

Department Response:
Comment 1 – The program's goal is the decarbonize the power sector. Reducing the regional cap over time is alignment with the Participating States climate goals and more specifically is a key strategy for Delaware meeting the statutory requirements found in the 2023 Climate Change Solutions Act. Delaware's participation in RGGI is common sense as it creates a path toward a more stable climate, healthier air, a robust energy economy, and lower electricity bills.
Comment 2 –DPL and its regulatory oversight by the Delaware Public Utility Commission is not affected by the proposed amendments to 7 DE Admin. Code 1147.

Comment from Lea Bantum on May 5, 2026 via email. supplemental comment received on May 5, 2026:

To: Yagna Shah, Division of Air Quality (yagna.shah@delaware.gov)
From: Leatrice Bantum
Date: May 5, 2026
Subject: FORMAL COMMENT: Proposed Amendments to 7 DE Admin. Code 1147 (CO2 Budget Trading Program)

Dear Ms. Shah,
As a resident of New Castle and an independent researcher currently representing a collective of petitioners in Docket 25-1555, I am writing to submit a formal objection and professional warning regarding the proposed 2027–2037 amendments to the CO2 Budget Trading Program.
While the Department frames these revisions as part of a long-term environmental vision, I must highlight that the economic modeling presented in the March 2026 workshop fails to account for the current "Triple-Edged Sword" of financial volatility hitting Delaware families.

1. Critique of the $9.00 Minimum Reserve Price
The Department's intent to replace the Emissions Containment Reserve with a $9.00 minimum reserve price in 2027 represents a 235% increase over the current floor.
The Error in Modeling: The workshop claims bill impacts will be under ±1%. This ignores the reality of the April 2026 price surge to $40+ per ton.
Ratepayer Risk: Setting an artificially high floor during a period of record inflation acts as a regressive tax on fixed-income seniors, ensuring that utility bills can never decrease even if clean energy costs drop.

2. The Statutory Mandate of the "Prudence Standard" (SB 59)
As of January 1, 2026, 26 Del. C. § 307 mandates that all utility costs must be prudently incurred. This new legal standard shifts the burden of proof to the utility and the state to prove that every dollar spent is "objectively reasonable."
I contend that tightening the emissions cap at the same time PJM capacity prices have spiked by 833% (reaching $329.17/MW-day) is statutorily imprudent.
The Division must conduct a formal audit to prove that this "steeper cap" does not trigger unnecessary reliability costs that could have been avoided under a more moderate transition.

3. Protection Against Industrial Cross-Subsidization
Recent filings indicate a massive surge in electricity demand from regional data center clusters.
The Warning: Residential ratepayers must not be forced to pay a "carbon premium" through Rule 1147 to facilitate the high-energy demands of for-profit data centers.
I move for a requirement that any 1147-related costs be "ring-fenced" so that residential Standard Offer Service (SOS) customers are protected from subsidizing industrial expansion.

Conclusion
The state's 2050 "vision" cannot come at the expense of 2026 survival. I request that the Division of Air Quality coordinate directly with the Public Service Commission to ensure these amendments do not violate the Prudence Standard or exacerbate the $14.64 monthly increase already projected for Delmarva customers this June.
Respectfully Submitted,
Leatrice Bantum
Independent Advocate & Researcher

Department Response:
Comment 1 - The minimum reserve price has not been triggered since Auction Notice 18 (2012). The clearing prices for CO_2 allowances has steadily increased above the ECR price since Auction Notice 51 (2021).

The RGGI states proposed raising the minimum reserve price, the lowest price at which RGGI allowances may be sold at auction. In current RGGI design, the ECR is a reserve of allowances that can be withheld from an auction if the auction clearing price falls below a predetermined trigger price.

The RGGI states proposed removal of the ECR mechanism and replace it with an increased minimum reserve price of $9.00 effective in 2027, which will increase thereafter at a rate of 7% annually, matching the existing ECR trigger price trajectory. As a result, rather than a fixed number of allowances being withheld if the auction price falls below a set trigger price, all allowances will be withheld below that price.

Comment 2 – As mentioned in this document the retail prices (which include the cost of generating electricity) paid by the ratepayer are approved by the PSC and not by DNREC. Sections 10 and 11 of this document present detailed analyses of the impact of the proposed amendments and recent increases to ratepayer bills. The PJM market monitor and the Delaware Public Advocate have shown the cost of a CO_2 allowance has minimal impact on the overall costs paid by Delaware ratepayers.

Comment from Andrew Odonnel on May 15, 2026 via email:
From: Andrew O'Donnel
Sent: Thursday, May 14, 2026 8:19 PM
To: Shah, Yagna (DNREC) <yagna.shah@delaware.gov>
Cc: Helga Huntley; Jay Bancroft; David Wiesler
Subject: Public Comment in SUPPORT of DNREC's Proposed Amendments to Delaware's CO2 Budget Trading Program

Dear Members of the Delaware DNREC Division of Air Quality,
I am writing to express my strong support for the proposed amendments to Delaware's CO2 Budget Trading Program (7 DE Admin. Code 1147), which incorporate the latest revisions to the Regional Greenhouse Gas Initiative (RGGI). These changes are a critical step forward in addressing the urgent threat of climate change, protecting public health, and ensuring a fair and sustainable energy future for Delaware.

As a father, I am deeply concerned about the impacts of climate change on my family's well-being and the broader community. The existential threat posed by rising temperatures, extreme weather events, and air pollution demands bold and immediate action. By aligning Delaware's program with the latest RGGI revisions, we can:
Reduce harmful air pollution, protecting public health and lowering healthcare costs for families across the state.
Strengthen our economy by fostering innovation in clean energy and creating jobs in sustainable industries.
Ensure environmental justice by reducing disparities in air quality and health outcomes across communities.
Protect ratepayers from unfair cost-shifting by requiring energy producers to bear the financial responsibility for their pollution, rather than passing fees on to customers.

The proposed amendments, including adjustments to Delaware's share of the regional emissions cap for 2027–2037 and revisions to reserve prices and allowance allocations, are essential steps. However, I urge you to close loopholes that allow polluters to escape their responsibilities. Energy producers should not be permitted to simply pass pollution fees on to customers, particularly low-income households and small businesses. Delaware must ensure that polluters—not ratepayers—pay the price for their emissions.

These measures will not only help meet our state's emissions reduction goals but also contribute to the collective efforts of the RGGI states to combat climate change. Thank you for your dedication to protecting our environment, public health, and the financial well-being of Delaware's residents.
Sincerely,
Andrew ODonnell
Newark, Delaware

Department Response:
The Department thanks the commentor for their support of the RGGI program. Delaware power plants (Energy Producers) are fully responsible for obtaining CO_2 allowances for compliance with 7 DE Admin. Code. Section 11 provides information regarding the cost of allowances and their impact on the overall cost of electricity generation.

15.0 Bibliography and References

[1] Virginia's participation is anticipated to resume in 2026. Retrieved from https://www.rggi.org/sites/default/files/Uploads/Press-Releases/2026_04_29_VA_Welcome_Statement.pdf

[2] Updated RGGI Model Rule (2025) Retrieved from https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/Model_Rule_2025_07_03.pdf

[3] The MOU was signed by the Governors of the Participating States and outlines the program in detail, including the framework for a Model Rule. The states made substantial revisions to the draft model rule in response to public comments. As a result, an amendment to the MOU was agreed to and signed by the heads of the energy regulatory and environmental agencies in each participating state. The MOU and amendments are available at http://www.rggi.org/agreement.htm.

[4] RGGI States Welcome Virginia. April 2026. Retrieved from https://www.rggi.org/sites/default/files/Uploads/Press-Releases/2026_04_29_VA_Welcome_Statement.pdf

[5] Governor Spanberger Signs Legislation to Address High Energy Costs & Rejoin RGGI. June 2026. Retrieved from June Releases.

[6] Governor Shapiro's Remarks as Prepared During 2025-26 Budget Signing Ceremony. (Nov. 2025). Retrieved from https://www.pa.gov/governor/newsroom/2025-press-releases/governor-shapiro-remarks-as-prepared-during-2025-26-budget-signi.

[7] The New York State Energy Research and Development Authority issued a draft white paper "The Relative Effects of Various Factors on RGGI Electricity Sector Emissions 2005-2009" which details the reasons for the significant difference between the emissions levels projected in 2005 when the original program cap was set and actual emission levels experienced in the region. See, https://rggi.org/sites/default/files/Uploads/Design-Archive/2012-Review/2010-11-12/Retrospective_Analysis_Draft_White_Paper.pdf

[8] Delaware Register Volume 17 Issue 6. December 2013. Retrieved from Delaware Regulations - Regulation

[9] Principles to Accompany the Model Rule Amendments. (RGGI 2017). Retrieved from https://www.rggi.org/sites/default/files/Uploads/Program-Review/12-19-2017/Principles_Accompanying_Model_Rule.pdf

[10] Summary of Model Rule Updates. (RGGI 2017) Retrieved https://www.rggi.org/sites/default/files/Uploads/Program-Review/12-19-2017/Summary_Model_Rule_Updates.pdf

[11] Delaware Register, Volume 22 Issue 6. December 2018. Retrieved from Delaware Regulations - Regulation

[12] ibid.

[13] Program Review Meeting Schedule. https://www.rggi.org/program-overview-and-design/program-review

[14] The updated Model Rule to reflect the 2025 program recommendations. July 2025. Retrieved from https://www.rggi.org/sites/default/files/Uploads/Program-

Review/Release/Model_Rule_2025_07_03.pdf.

[15] 2022 Annual Greenhouse Gas Emissions Inventory Report.(Dec. 2025). Accessed on Feb. 5, 2026 Regional Greenhouse Gas Initiative - DNREC.

[16] IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34,

[17] Net Zero Coalition. United Nations. Accessed February 12, 2026. Retrieved from https://www.un.org/en/climatechange/net-zero-coalition.

[18] IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34.

[19] ibid.

[20] IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3-24. Retrieved from https://doi.org/10.1017/9781009157940.001.

[21] "Warmest January on Record, 12-Month Average over 1.5°C above Preindustrial." Copernicus. Retrieved from https://climate.copernicus.eu/warmest-january-record-12-month-average-over-15degc-above-preindustrial.

[22] IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34.

[23] National Academies. September 2025. Effects of Human-Caused Greenhouse Gas Emissions on U.S. Climate, Health, and Welfare.

[24] These findings were signed by the Administrator on December 7, 2009. On December 15, 2009, the final findings were published in the *Federal Register* (www.regulations.gov) under Docket ID No. EPA-HQ-OAR-2009-0171. The final rule was effective January 14, 2010. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act Scientific and technical information summarized to support the Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act can be found here: Technical Support Document for the Findings.

[25] Delaware Climate Action Plan. December 2025. Retrieved from https://dnrec.delaware.gov/climate-plan/.

[26] Delaware Climate Change Projections Report. October 2025. Retrieved from https://cema.udel.edu/documents/Delaware_2025_Climate_Change_Projections_Report.pdf .

[27] ibid.

[28] ibid.

[29] The Paris Agreement central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Retrieved from https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement.

[30] The United States Climate Alliance is a bipartisan coalition of governors committed to reducing greenhouse gas emissions consistent with the goals of the Paris Agreement. Retrieved from https://www.usclimatealliance.org/.

[31] The United States' Nationally Determined Contribution Reducing Greenhouse Gases in the United States: A 2035 Emissions Target. UNFCC. December 2024. Retrieved from https://unfccc.int/sites/default/files/2024-12/United%20States%202035%20NDC.pdf.

[32] U.S. Climate Alliance Commits to Achieve Net-Zero Emissions No Later than 2050. USCA. April 2021. Retrieved from https://usclimatealliance.org/press-releases/alliance-2050-net-zero-commitment-apr-2021/.

[33] *7 Del. C. § 10000 et seq.*, the "Delaware Climate Change Solutions Act of 2023." https://legis.delaware.gov/SessionLaws/Chapter?id=41760.

[34] DNREC. (2025). 2025 Climate Action Plan. Dover, DE: Delaware Department of Natural Resources and Environmental Control. Retrieved from https://documents.dnrec.delaware.gov/energy/Climate-Plan/2025-Delaware-Climate-Action-Plan.pdf.

[35] As of March 13, 2026, the estimated bank of privately held allowances in excess of RGGI compliance obligations is 61 million short tons.

[36] "RGGI Program Review: Economic Impact Modeling Results" by ICF, August 2025. https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/RGGI_Econ_Modeling_Results.pdf.

[37] Bills Analysis (Analysis Group). July 2025: https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/Program_Review_Bills_Analysis.pdf.

[38] IPM® Electricity Sector Modeling (ICF). July 2025. https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/RGGI_Program_Review_IPM_Results.xlsx.

[39] IPM® Electricity Sector Modeling. (2025) Retrieved from www.rggi.org/programoverview-and-design/program-revew.

[40] Annual Energy Outlook – AEO2023. U.S. Energy Information Administration. (2023).

[41] IPM® Electricity Sector Modeling. July 2025. Retrieved from https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/RGGI_Program_Review_IPM_Results.xlsx.

[42] IPM® modeling results are available at the RGGI Website at: https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/RGGI_Program_Review_IPM_Results.xlsx.

[43] REMI modeling results are available at the RGGI Website at: https://www.rggi.org/sites/default/files/Uploads/Program-Review/Release/RGGI_Econ_Modeling_Results.pdf.

[44] 2022 dollars, calculated as the present value of estimated annual changes over the period 2025 to 2040, discounted at 3% per year to account for the time-value of money.

[45] The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States – Review of RGG's Third Three-Year Compliance Period (2018-2020). Analysis Group. May 2023. Retrieved from https://www.analysisgroup.com/globalassets/insights/publishing/2023-ag-rggi-report.pdf.

[46] Analysis Group's macroeconomic analysis captures all regional impacts of a single state's spending for the ten RGGI member states.

[47] Overall, the distribution of spending across the RGGI states for the 2018-2020 period was: 41% on EE; 17% on RE projects; 17% on direct bill assistance to consumers; 6% on program administration; 13% on GHG-emission reduction programs; and the remainder on other programs. Individual state expenditures varied significantly across these categories.

[48] The Investment of RGGI Proceeds in 2024. June 2026 Retrieved from Investments of Proceeds | RGGI, Inc.

[49] Regional Greenhouse Gas Initiative and CO2 Emission Trading Program. 7 Del. Code 6046. Retrieved from https://delcode.delaware.gov/title7/c060/sc02a/index.html.

[50] EPA Local Benefits of Energy Efficiency and Opportunities. March 2026 Retrieved from https://www.epa.gov/statelocalenergy/local-energy-efficiency-benefits-and-opportunities

[51] Energize Delaware Annual Report – 2025. April 2026. Retrieved from https://energizedelaware.org/2025-annual-report-launched/.

[52] The Delaware Clean Vehicle Rebate Program. DNREC. May 2026. Retrieved from The Delaware Clean Vehicle Rebate Program - DNREC.

[53] Cool Switch Low-Impact Refrigerant Program. DNREC. May 2026. Retrieved from Cool Switch Low-Impact Refrigerant Program - DNREC

[54] Low Income Home Energy Assistance Program. DHSS. May 2026. Retrieved from Low Income Home Energy Assistance Program (LIHEAP) – DHSS

[55] Unit shutdown in 2021.

[56] Units 1-3 shutdown in 2010. Unit 4 shutdown February 2025.

[57] DE's bills analysis results for Average Bill Impacts by Case, Customer Class and Reinvestment Scenario: 2028-2037.

[58] Two policy cases, one of which assumes full on-time achievement of state clean energy deployment targets (Case B), and one of which assumes clean energy additions are mostly limited to currently contracted renewables (Case A), though the model also allowed for some renewable energy additions when it is economic to do so.

[59] EIA. 2025b. Electricity Data Browser. Energy Information Administration. Retrieved from https://www.eia.gov/electricity/data/browser/〉

[60] Recent Retail Electricity Price Trends. Lawrence Berkeley National Laboratory. October 2025. Retrieved from https://eta-publications.lbl.gov/sites/default/files/2025-10/presentation_retail_price_trends_drivers.pdf

[61] State of Delaware – Division of the Public Advocate. April 2026. Retrieved from - https://publicadvocate.delaware.gov/historical-review-of-delmarva-power-electric-residential-rates/#

[62] 2026 Quarterly State of the Market Report for PJM: January through March retrieved from https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2026/2026q1-som-pjm.pdf

[63] The Regional Greenhouse Gas Initiative. Sierra Club – Delaware Chapter. 2026. Retrieved from https://www.sierraclub.org/sites/default/files/2025-04/the-regional-greenhouse-gas-initiative-rggi.pdf

[64] Analysis of the Public Health Impacts of the Regional Greenhous Gas Initiative, 2009-2014. Abt Associates. January 2017. Retrieved from https://www.abtglobal.com/insights/publications/report/analysis-of-the-public-health-impacts-of-the-regional-greenhouse-gas .

[65] RGGI State Level Avoided Health Effects. Abt (2017). Retrieved from RGGI state level results.pdf

APPENDIX A

- Appendix A – IPM Modeling
- Appendix A – RGGI_Program_Review_IPM_Results

APPENDIX B – RGGI REMI Modeling Results

- Appendix B – RGGI_REMI_Modeling_Results

RGGI Program Review: Economic Impact Modeling Results

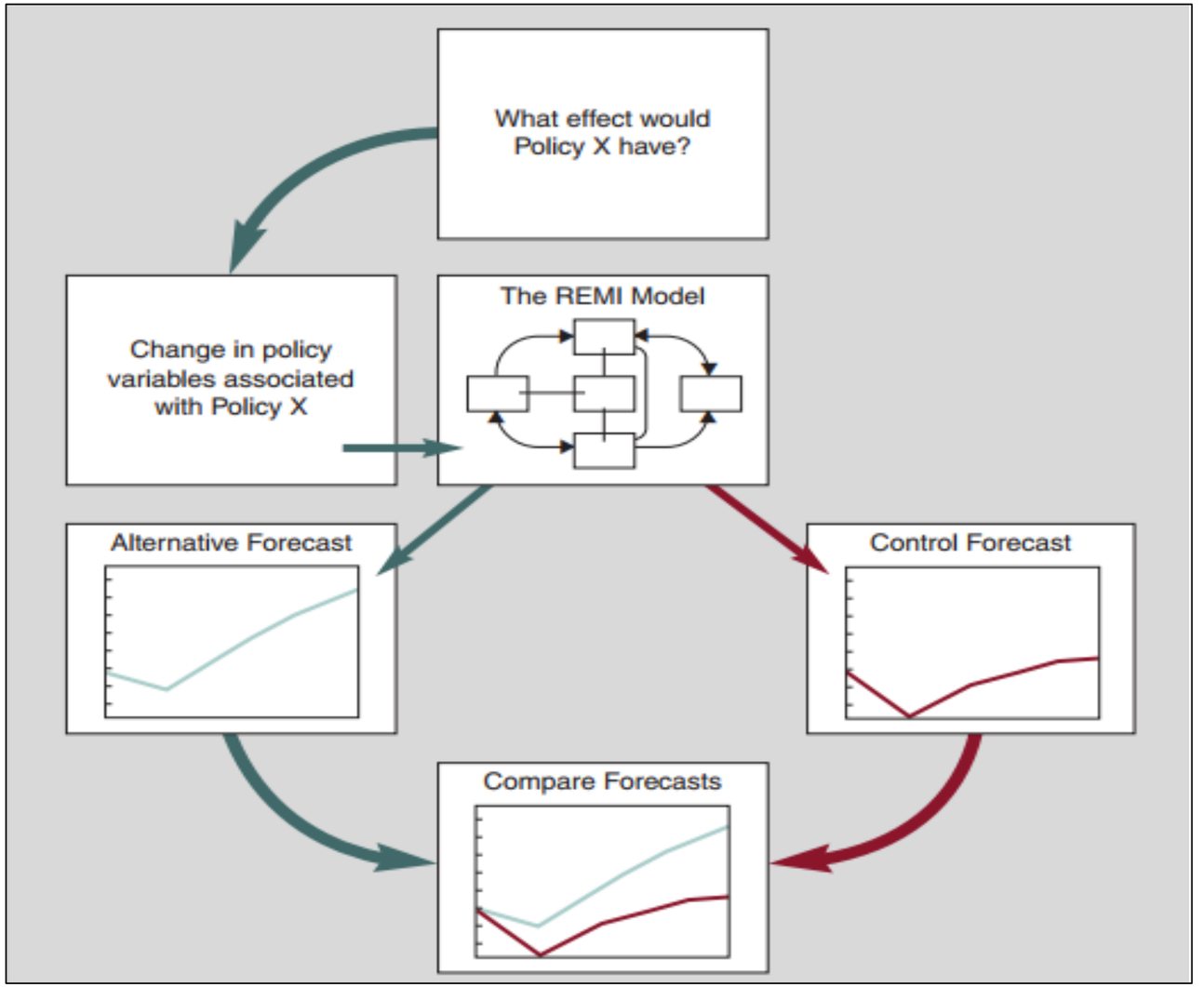
August 2025

Overall Modeling Methodology

- Used 10-state REMI model (covering CT, DE, ME, MD, MA, NH, NJ, NY, RI, VT)
- Two broad set of inputs used to model the economic impacts of the policy changes
  - First set of inputs derived directly from relevant IPM runs
    - Reference Scenario (Current RGGI Price) (For both Case A / Case B)
    - Policy Scenario (For both Case A / Case B)
  - Second set comes from the allowance proceeds
    - Everything modeled at the individual state-level
- Results presented are at the RGGI region level
- Modeling does not include benefits of avoided carbon emissions
  - REMI modeling focuses on regional economic impacts, not societal benefits of environmental policies

REMI Model Background

- REMI is a dynamic macroeconometric model
  - The model uses a combination of input- output, econometric and computable general equilibrium (CGE) modeling techniques
  - Using a 10-state model for this study
- Calibrated to most recent regional and industry data
  - Census regions and North American Industry Classification System (NAICS)-based industry classification
  - Provides the ability to analyze detailed distributional impacts
- REMI estimates impacts over time
  - Produces robust short-and long-term impacts



Results

RGGI Region Results

- Overall RGGI-induced economic impacts are minor, reflecting that the pace of economic growth in this region will not be disrupted by these changes
- Both Cases A and B lead to slight positive net benefits for the RGGI economy
- Investments in beneficial electrification and energy efficiency reduce energy consumption and lead to consumer savings producing positive economic benefits

Cumulative RGGI Results (3% Discount Rate*)		
Economic Indicator	**2025 - 2040**	
	Case A	**Case B**
Employment (Thousands of Job-Years)	176.5	24.9
% Change from Reference Case	0.0309%	0.0044%
Reference Case Level	571,567	
Gross State Product (Billion Fixed 2022$)	$20.4	$21.1
% Change from Reference Case	0.0288%	0.0195%
Reference Case Level	$70,645	
Disposable Personal Income (Billion Fixed 2022$)	$13.2	$8.9
% Change from Reference Case	0.0258%	0.0173%
Reference Case Level	$51,119	

*Employment Numbers are Undiscounted

Modeling Inputs: IPM

IPM Methodology

- Changes in RGGI cap leads to additional changes in the energy markets, relevant for economic modeling
- IPM scenarios used in this analysis include
  - Case A — only procured renewable projects are accounted for, with RGGI Policy Case
  - Case B — all procured renewable projects and in-statute policies/regulations are accounted for, with RGGI Policy Case
    - Both Cases A and B are run under the Current Allowance Price and Policy Scenarios
- Changes captured include:
  - Changes/shifts in new generation capacity
  - Changes/shifts in fuel demand
  - Changes in retirements
  - (Small) changes in retrofit use
  - Electricity price impacts, adjusted for load affected by REC markets
  - Allowance revenue impacts

Modeling Inputs:
Revenue Reinvestment

REMI Modeling of Allowance Revenues

- Revenue under Case A and Case B obtained from IPM modeling
  - Modeling inputs calculated as incremental over relevant Current RGGI price Reference cases (e.g., Case A Policy – Case A Current RGGI price)
  - Revenue allocated to each state based on distribution percentages from RGGI
- Revenue for each state then allocated to various investment categories based on state inputs
- Includes data on multiple investment categories
  - **Energy Efficiency**: electric and fossil
  - **Clean and Renewable Energy**: distributed generation
  - **GHG Abatement and Climate Change**: large bucket of categories including research, outreach / education, technological advancement
  - **Beneficial Electrification**: electric vehicles and conversion of end-use measures from fossil to electric (e.g., heat pumps)
  - **Direct Bill Assistance**: programs offering rebates on electric bills or other direct payments
  - Administrative Costs for states to implement RGGI funded programs
- Used RGGI Proceeds report to fill data gaps
  - Used proceeds report ("The Investment of RGGI Proceeds in 2022", published July 2024) to 'true up' data

Summary of Reinvestment Category Allocations by State

- Table represents current shares for state-level investment by categories used in the REMI modeling
- Revenue allocation is the same under Case A and Case B, except CT (see table note)

State	Energy Efficiency	Clean & Renewable Energy	Beneficial Electrification	Direct Bill Assistance	GHG Abatement & Climate Change	Administration	Total
Connecticut*	40%	13%		42%		4%	100%
Delaware	57%	10%	16%	5%	5%	7%	100%
Maine	73%		20%		4%	3%	100%
Maryland	22%	7%	9%	55%	3%	4%	100%
Massachusetts	63%		33%			4%	100%
New Hampshire	7%			92%		1%	100%
New Jersey	14%	2%	69%		7%	7%	100%
New York	37%	7%	13%		36%	8%	100%
Rhode Island	52%	5%	29%	4%	0.2%	10%	100%
Vermont	92%					8%	100%

* CT has a special provision that if the allowance revenue meet specific threshold, “excess proceeds” are to be returned to ratepayers as DBA, a condition met under Case A but not under Case B. In Case B, corresponding investment shares: Energy Efficiency (69.5%), Clean and Renewable Energy (23%) and Administration (7.5%).

REMI Modeling of Allowance Revenue

- Allowance revenue converted into inputs under each investment category using data provided by states (e.g., savings ratios, customer out of pocket)

- Primarily these modeling inputs include:
  - Capital expenditures/investments – most investment categories incentivize spending on new equipment (e.g., energy efficient appliances, solar panels, electric vehicles)
  - Investment opportunity costs
    - Households/businesses that purchase equipment have alternative opportunities in the economy to spend their income
  - Bill savings (from change in fuel consumption)
    - Increase in money available to residential consumers to spend in the rest of the economy
    - Reduced costs of doing business for commercial establishments
  - Fuel production impacts
    - For fossil producing industries, a decline in demand for their products

REMI Modeling of Allowance Revenues – BE and Low Income

- Two new areas for modeling from the last program review
- Beneficial electrification net bill impacts include savings from lower consumption of fossil fuels
- Offset by induced demand of increased consumption of electricity
- Low-income re-investment of proceeds
- States provided data on percent of revenue directed to low-income communities for specific investment categories
- Multiple REMI modeling adjustments for low-income re-investments
- Adjust marginal propensity to consume: low-income consumers spend a higher proportion of their money and save/invest less
- Adjust the bucket of goods low-income consumers spend on (e.g., higher proportion of their income spent on housing, food, other necessities) based on consumer expenditure data
- Assume more local content associated with investments
- Such as efforts to use local firms, employ workers from local communities

[RECAP] Results

[RECAP] RGGI Region Results

- Overall RGGI-induced economic impacts are minor, reflecting that the pace of economic growth in this region will not be disrupted by these changes
- Both Cases A and B lead to slight positive net benefits for the RGGI economy
- Investments in beneficial electrification and energy efficiency reduce energy consumption and lead to consumer savings producing positive economic benefits

Cumulative RGGI Results (3% Discount Rate*)		
Economic Indicator	**2025 - 2040**	
	Case A	**Case B**
Employment (Thousands of Job-Years)	176.5	24.9
% Change from Reference Case	0.0309%	0.0044%
Reference Case Level	571,567	
Gross State Product (Billion Fixed 2022$)	$20.4	$21.1
% Change from Reference Case	0.0288%	0.0195%
Reference Case Level	$70,645	
Disposable Personal Income (Billion Fixed 2022$)	$13.2	$8.9
% Change from Reference Case	0.0258%	0.0173%
Reference Case Level	$51,119	

*Employment Numbers are Undiscounted

APPENDIX C – Delaware Customer Bill Impacts Results

- Appendix C – Delaware_Bill_Impact_Analysis
- Appendix C – Regional_Review_Bills_Analysis

DE Average Bill Impacts by Case, Customer Class, and Reinvestment Scenario: 2028-2037

Case A

No Reinvestment of RGGI Proceeds

Customer Class	Case A (Exp)	Case A (Flat Cap)	Monthly Difference ($2022)	Percent Difference
Residential	$89.12	$85.69	$3.43	4.00%
Commercial	$358.13	$335.54	$22.59	6.73%
Industrial	$8,225.07	$7,484.65	$740.42	9.89%

Case B

No Reinvestment of RGGI Proceeds

Customer Class	Case B (Exp)	Case B (Flat Cap)	Monthly Difference ($2022)	Percent Difference
Residential	$84.62	$82.90	$1.72	2.07%
Commercial	$328.48	$317.17	$11.30	3.56%
Industrial	$7,301.78	$6,929.26	$372.52	5.38%

Case A

Projected State-Level Bill Assistance

Customer Class	Case A (Exp)	Case A (Flat Cap)	Monthly Difference ($2022)	Percent Difference
Residential	$89.01	$85.67	$3.34	3.90%
Commercial	$357.39	$335.42	$21.98	6.55%
Industrial	$8,200.79	$7,480.52	$720.26	9.63%

Case B

Projected State-Level Bill Assistance

Customer Class	Case B (Exp)	Case B (Flat Cap)	Monthly Difference ($2022)	Percent Difference
Residential	$84.58	$82.89	$1.69	2.04%
Commercial	$328.23	$317.08	$11.15	3.52%
Industrial	$7,293.64	$6,926.23	$367.41	5.30%

Case A

Projected State-Level Bill Assistance, Energy Efficiency Spending, and Beneficial Electrification Spending

Customer Class	Case A (Exp)	Case A (Flat Cap)	Monthly Difference ($2022)	Percent Difference
Residential	$87.32	$85.38	$1.94	2.27%
Commercial	$346.29	$333.53	$12.76	3.83%
Industrial	$7,836.48	$7,418.62	$417.85	5.63%

Case B

Projected State-Level Bill Assistance, Energy Efficiency Spending, and Beneficial Electrification Spending

Customer Class	Case B (Exp)	Case B (Flat Cap)	Monthly Difference ($2022)	Percent Difference
Residential	$84.02	$82.68	$1.34	1.62%
Commercial	$324.52	$315.70	$8.82	2.79%
Industrial	$7,171.56	$6,880.83	$290.73	4.23%

Notes: [1] "Case A" and "Case B" include alternative assumptions regarding state-level policy drivers. "(Exp)" refers to the RGGI Exploratory Policy while "(Flat Cap)" refers to the reference scenario. [2] 2023 usage was calculated from Type A Utilities (bundled generation and transmission) and Type B Utilities (generation only). 2023 historical transmission and delivery rates were calculated from Type C utilities (transmission only). [3] Future electricity consumption is assumed to grow at the same rate as IPM's Case A or Case B load forecast. [4] Reinvestment scenarios reflect alternative assumptions regarding the impact of state-level projected spending of RGGI proceeds on consumer electric bills. Energy efficiency and beneficial electrification is modeled as a volumetric credit to electricity customers.

Sources: [A] ICF, "RGGI Program Review - Case Results." [B] EIA Form-861: Sales Utility to End Customer, 2023.

DE Annual Bill Impacts by Case and Customer Class from 2028-2037:
No Reinvestment of RGGI Proceeds

Case A

Residential Customers

Year	Average Monthly Bill ($2022)		Difference Between Case A and Case A (Flat Cap)	
	Case A (Exp)	Case A (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$84.47	$80.73	$3.73	4.62%
2029	$84.02	$79.95	$4.07	5.10%
2030	$83.82	$79.39	$4.43	5.57%
2031	$85.43	$81.52	$3.90	4.79%
2032	$87.61	$84.21	$3.40	4.03%
2033	$89.10	$85.92	$3.18	3.70%
2034	$91.19	$88.21	$2.98	3.38%
2035	$93.57	$90.79	$2.78	3.07%
2036	$95.43	$92.55	$2.88	3.11%
2037	$96.57	$93.62	$2.96	3.16%
Average	$89.12	$85.69	$3.43	4.00%

Case B

Residential Customers

Year	Average Monthly Bill ($2022)		Difference Between Case B and Case B (Flat Cap)	
	Case B (Exp)	Case B (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$82.10	$81.02	$1.09	1.34%
2029	$81.86	$80.37	$1.48	1.85%
2030	$81.85	$79.96	$1.89	2.36%
2031	$81.52	$79.59	$1.93	2.42%
2032	$81.72	$79.74	$1.98	2.49%
2033	$83.30	$81.24	$2.07	2.54%
2034	$85.44	$83.28	$2.16	2.60%
2035	$87.86	$85.59	$2.27	2.65%
2036	$89.68	$88.15	$1.54	1.74%
2037	$90.83	$90.06	$0.77	0.86%
Average	$84.62	$82.90	$1.72	2.07%

Case A

Commercial Customers

Year	Average Monthly Bill ($2022)		Difference Between Case A and Case A (Flat Cap)	
	Case A (Exp)	Case A (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$331.33	$306.75	$24.57	8.01%
2029	$329.03	$302.21	$26.82	8.87%
2030	$327.70	$298.56	$29.14	9.76%
2031	$337.66	$311.97	$25.69	8.23%
2032	$349.93	$327.57	$22.36	6.83%
2033	$359.41	$338.48	$20.92	6.18%
2034	$371.32	$351.71	$19.61	5.58%
2035	$384.50	$366.17	$18.33	5.00%
2036	$392.64	$373.67	$18.97	5.08%
2037	$397.84	$378.36	$19.48	5.15%
Average	$358.13	$335.54	$22.59	6.73%

Case B

Commercial Customers

Year	Average Monthly Bill ($2022)		Difference Between Case B and Case B (Flat Cap)	
	Case B (Exp)	Case B (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$315.78	$308.63	$7.15	2.32%
2029	$314.78	$305.01	$9.78	3.20%
2030	$314.71	$302.29	$12.42	4.11%
2031	$311.95	$299.26	$12.69	4.24%
2032	$311.19	$298.14	$13.05	4.38%
2033	$321.23	$307.63	$13.60	4.42%
2034	$333.45	$319.21	$14.24	4.46%
2035	$346.85	$331.92	$14.93	4.50%
2036	$354.77	$344.66	$10.11	2.93%
2037	$360.05	$354.97	$5.07	1.43%
Average	$328.48	$317.17	$11.30	3.56%

Case A

Industrial Customers

Year	Average Monthly Bill ($2022)		Difference Between Case A and Case A (Flat Cap)	
	Case A (Exp)	Case A (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$7,424.53	$6,618.07	$806.46	12.19%
2029	$7,410.28	$6,523.92	$886.36	13.59%
2030	$7,344.65	$6,384.44	$960.21	15.04%
2031	$7,642.58	$6,798.41	$844.17	12.42%
2032	$7,962.00	$7,231.92	$730.08	10.10%
2033	$8,329.59	$7,641.14	$688.45	9.01%
2034	$8,636.82	$7,995.78	$641.04	8.02%
2035	$9,003.27	$8,405.92	$597.35	7.11%
2036	$9,145.53	$8,531.21	$614.32	7.20%
2037	$9,351.49	$8,715.70	$635.79	7.29%
Average	$8,225.07	$7,484.65	$740.42	9.89%

Case B

Industrial Customers

Year	Average Monthly Bill ($2022)		Difference Between Case B and Case B (Flat Cap)	
	Case B (Exp)	Case B (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$6,942.64	$6,707.00	$235.64	3.51%
2029	$6,919.69	$6,597.56	$322.13	4.88%
2030	$6,916.97	$6,507.66	$409.32	6.29%
2031	$6,816.56	$6,398.27	$418.29	6.54%
2032	$6,759.30	$6,329.21	$430.09	6.80%
2033	$7,084.50	$6,636.41	$448.10	6.75%
2034	$7,458.99	$6,989.80	$469.20	6.71%
2035	$7,861.65	$7,369.64	$492.02	6.68%
2036	$8,059.59	$7,726.42	$333.17	4.31%
2037	$8,197.84	$8,030.62	$167.22	2.08%
Average	$7,301.78	$6,929.26	$372.52	5.38%

Notes: [1] "Case A" and "Case B" include alternative assumptions regarding state-level policy drivers. "(Exp)" refers to the RGGI Exploratory Policy while "(Flat Cap)" refers to the reference scenario. [2] 2023 usage was calculated from Type A Utilities (bundled generation and transmission) and Type B Utilities (generation only). 2023 historical transmission and delivery rates were calculated from Type C utilities (transmission only). [3] Future electricity consumption is assumed to grow at the same rate as IPM's Case A or Case B load forecast. [4] Reinvestment scenarios reflect alternative assumptions regarding the impact of state-level projected spending of RGGI proceeds on consumer electric bills. Energy efficiency and beneficial electrification is modeled as a volumetric credit to electricity customers.

Sources: [A] ICF, "RGGI Program Review - Case Results." [B] EIA Form-861: Sales Utility to End Customer, 2023.

DE Annual Bill Impacts by Case and Customer Class from 2028-2037:
Projected State-Level Bill Asssistance

Case A

Residential Customers

Year	Average Monthly Bill ($2022): Case A (Exp)	Average Monthly Bill ($2022): Case A (Flat Cap)	Difference Between Case A and Case A (Flat Cap): Average Monthly Difference ($2022)	Difference Between Case A and Case A (Flat Cap): Percent Difference
2028	$84.27	$80.72	$3.55	4.40%
2029	$83.86	$79.93	$3.93	4.92%
2030	$83.65	$79.37	$4.28	5.39%
2031	$85.30	$81.51	$3.79	4.66%
2032	$87.48	$84.19	$3.29	3.91%
2033	$89.03	$85.90	$3.13	3.64%
2034	$91.12	$88.19	$2.93	3.32%
2035	$93.50	$90.77	$2.73	3.01%
2036	$95.36	$92.53	$2.83	3.06%
2037	$96.50	$93.60	$2.91	3.11%
Average	$89.01	$85.67	$3.34	3.90%

Case B

Residential Customers

Year	Average Monthly Bill ($2022): Case B (Exp)	Average Monthly Bill ($2022): Case B (Flat Cap)	Difference Between Case B and Case B (Flat Cap): Average Monthly Difference ($2022)	Difference Between Case B and Case B (Flat Cap): Percent Difference
2028	$82.03	$81.00	$1.03	1.27%
2029	$81.80	$80.36	$1.44	1.79%
2030	$81.79	$79.95	$1.84	2.30%
2031	$81.48	$79.58	$1.90	2.39%
2032	$81.68	$79.73	$1.95	2.45%
2033	$83.28	$81.22	$2.06	2.53%
2034	$85.42	$83.26	$2.16	2.59%
2035	$87.83	$85.57	$2.26	2.64%
2036	$89.66	$88.13	$1.53	1.73%
2037	$90.82	$90.05	$0.77	0.86%
Average	$84.58	$82.89	$1.69	2.04%

Case A

Commercial Customers

Year	Average Monthly Bill ($2022): Case A (Exp)	Average Monthly Bill ($2022): Case A (Flat Cap)	Difference Between Case A and Case A (Flat Cap): Average Monthly Difference ($2022)	Difference Between Case A and Case A (Flat Cap): Percent Difference
2028	$330.03	$306.63	$23.40	7.63%
2029	$327.96	$302.09	$25.87	8.56%
2030	$326.62	$298.44	$28.18	9.44%
2031	$336.84	$311.85	$24.98	8.01%
2032	$349.10	$327.45	$21.65	6.61%
2033	$358.96	$338.35	$20.61	6.09%
2034	$370.86	$351.57	$19.29	5.49%
2035	$384.04	$366.04	$18.00	4.92%
2036	$392.17	$373.54	$18.64	4.99%
2037	$397.37	$378.22	$19.15	5.06%
Average	$357.39	$335.42	$21.98	6.55%

Case B

Commercial Customers

Year	Average Monthly Bill ($2022): Case B (Exp)	Average Monthly Bill ($2022): Case B (Flat Cap)	Difference Between Case B and Case B (Flat Cap): Average Monthly Difference ($2022)	Difference Between Case B and Case B (Flat Cap): Percent Difference
2028	$315.30	$308.52	$6.77	2.19%
2029	$314.39	$304.92	$9.48	3.11%
2030	$314.32	$302.19	$12.12	4.01%
2031	$311.68	$299.17	$12.50	4.18%
2032	$310.91	$298.05	$12.86	4.32%
2033	$321.08	$307.53	$13.55	4.41%
2034	$333.31	$319.12	$14.19	4.45%
2035	$346.71	$331.82	$14.88	4.48%
2036	$354.63	$344.57	$10.06	2.92%
2037	$359.96	$354.89	$5.07	1.43%
Average	$328.23	$317.08	$11.15	3.52%

Case A

Industrial Customers

Year	Average Monthly Bill ($2022): Case A (Exp)	Average Monthly Bill ($2022): Case A (Flat Cap)	Difference Between Case A and Case A (Flat Cap): Average Monthly Difference ($2022)	Difference Between Case A and Case A (Flat Cap): Percent Difference
2028	$7,382.09	$6,614.16	$767.94	11.61%
2029	$7,374.80	$6,519.98	$854.82	13.11%
2030	$7,308.95	$6,380.50	$928.45	14.55%
2031	$7,615.62	$6,794.57	$821.06	12.08%
2032	$7,934.87	$7,228.09	$706.78	9.78%
2033	$8,314.86	$7,636.75	$678.12	8.88%
2034	$8,621.97	$7,991.41	$630.55	7.89%
2035	$8,988.23	$8,401.57	$586.66	6.98%
2036	$9,130.34	$8,526.88	$603.46	7.08%
2037	$9,336.13	$8,711.34	$624.79	7.17%
Average	$8,200.79	$7,480.52	$720.26	9.63%

Case B

Industrial Customers

Year	Average Monthly Bill ($2022): Case B (Exp)	Average Monthly Bill ($2022): Case B (Flat Cap)	Difference Between Case B and Case B (Flat Cap): Average Monthly Difference ($2022)	Difference Between Case B and Case B (Flat Cap): Percent Difference
2028	$6,926.60	$6,703.45	$223.15	3.33%
2029	$6,906.78	$6,594.50	$312.27	4.74%
2030	$6,904.05	$6,504.60	$399.46	6.14%
2031	$6,807.53	$6,395.47	$412.06	6.44%
2032	$6,750.27	$6,326.41	$423.86	6.70%
2033	$7,079.84	$6,633.36	$446.49	6.73%
2034	$7,454.33	$6,986.75	$467.58	6.69%
2035	$7,856.99	$7,366.59	$490.40	6.66%
2036	$8,054.93	$7,723.37	$331.55	4.29%
2037	$8,195.05	$8,027.83	$167.22	2.08%
Average	$7,293.64	$6,926.23	$367.41	5.30%

Notes: [1] "Case A" and "Case B" include alternative assumptions regarding state-level policy drivers. "(Exp)" refers to the RGGI Exploratory Policy while "(Flat Cap)" refers to the reference scenario. [2] 2023 usage was calculated from Type A Utilities (bundled generation and transmission) and Type B Utilities (generation only). 2023 historical transmission and delivery rates were calculated from Type C utilities (transmission only). [3] Future electricity consumption is assumed to grow at the same rate as IPM's Case A or Case B load forecast. [4] Reinvestment scenarios reflect alternative assumptions regarding the impact of state-level projected spending of RGGI proceeds on consumer electric bills. Energy efficiency and beneficial electrification is modeled as a volumetric credit to electricity customers.

Sources: [A] ICF, "RGGI Program Review - Case Results." [B] EIA Form-861: Sales Utility to End Customer, 2023.

DE Annual Bill Impacts by Case and Customer Class from 2028-2037:
Projected State-Level Bill Assistance, Energy Efficiency Spending, and Beneficial Electrification Spending

Case A

Residential Customers

Year	Average Monthly Bill ($2022)		Difference Between Case A and Case A (Flat Cap)	
	Case A (Exp)	Case A (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$81.32	$80.44	$0.88	1.09%
2029	$81.41	$79.66	$1.75	2.20%
2030	$81.19	$79.10	$2.08	2.63%
2031	$83.43	$81.24	$2.19	2.70%
2032	$85.59	$83.93	$1.66	1.98%
2033	$88.01	$85.60	$2.42	2.82%
2034	$90.09	$87.89	$2.20	2.50%
2035	$92.45	$90.47	$1.99	2.20%
2036	$94.29	$92.23	$2.07	2.24%
2037	$95.43	$93.29	$2.14	2.29%
Average	$87.32	$85.38	$1.94	2.27%

Case B

Residential Customers

Year	Average Monthly Bill ($2022)		Difference Between Case B and Case B (Flat Cap)	
	Case B (Exp)	Case B (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$80.92	$80.76	$0.16	0.20%
2029	$80.90	$80.15	$0.76	0.95%
2030	$80.89	$79.73	$1.16	1.45%
2031	$80.86	$79.39	$1.47	1.85%
2032	$81.06	$79.53	$1.52	1.91%
2033	$82.96	$81.01	$1.95	2.40%
2034	$85.09	$83.05	$2.04	2.46%
2035	$87.51	$85.36	$2.15	2.52%
2036	$89.34	$87.92	$1.42	1.61%
2037	$90.63	$89.86	$0.77	0.86%
Average	$84.02	$82.68	$1.34	1.62%

Case A

Commercial Customers

Year	Average Monthly Bill ($2022)		Difference Between Case A and Case A (Flat Cap)	
	Case A (Exp)	Case A (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$310.64	$304.85	$5.79	1.90%
2029	$311.85	$300.30	$11.55	3.85%
2030	$310.37	$296.65	$13.72	4.62%
2031	$324.53	$310.10	$14.43	4.65%
2032	$336.64	$325.70	$10.94	3.36%
2033	$352.25	$336.35	$15.90	4.73%
2034	$364.05	$349.57	$14.48	4.14%
2035	$377.11	$364.03	$13.08	3.59%
2036	$385.14	$371.53	$13.60	3.66%
2037	$390.31	$376.22	$14.09	3.75%
Average	$346.29	$333.53	$12.76	3.83%

Case B

Commercial Customers

Year	Average Monthly Bill ($2022)		Difference Between Case B and Case B (Flat Cap)	
	Case B (Exp)	Case B (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$307.99	$306.91	$1.09	0.35%
2029	$308.51	$303.52	$4.99	1.64%
2030	$308.44	$300.80	$7.63	2.54%
2031	$307.57	$297.90	$9.67	3.25%
2032	$306.81	$296.78	$10.03	3.38%
2033	$318.96	$306.15	$12.81	4.19%
2034	$331.19	$317.73	$13.46	4.23%
2035	$344.58	$330.44	$14.15	4.28%
2036	$352.51	$343.18	$9.33	2.72%
2037	$358.69	$353.62	$5.07	1.43%
Average	$324.52	$315.70	$8.82	2.79%

Case A

Industrial Customers

Year	Average Monthly Bill ($2022)		Difference Between Case A and Case A (Flat Cap)	
	Case A (Exp)	Case A (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$6,745.56	$6,555.47	$190.09	2.90%
2029	$6,842.45	$6,460.75	$381.71	5.91%
2030	$6,773.50	$6,321.45	$452.05	7.15%
2031	$7,211.23	$6,736.88	$474.35	7.04%
2032	$7,528.00	$7,170.78	$357.22	4.98%
2033	$8,094.00	$7,570.82	$523.19	6.91%
2034	$8,399.18	$7,925.91	$473.27	5.97%
2035	$8,762.58	$8,336.25	$426.33	5.11%
2036	$8,902.53	$8,462.00	$440.53	5.21%
2037	$9,105.74	$8,645.94	$459.80	5.32%
Average	$7,836.48	$7,418.62	$417.85	5.63%

Case B

Industrial Customers

Year	Average Monthly Bill ($2022)		Difference Between Case B and Case B (Flat Cap)	
	Case B (Exp)	Case B (Flat Cap)	Average Monthly Difference ($2022)	Percent Difference
2028	$6,685.93	$6,650.15	$35.78	0.54%
2029	$6,712.99	$6,548.59	$164.40	2.51%
2030	$6,710.27	$6,458.68	$251.59	3.90%
2031	$6,672.12	$6,353.49	$318.63	5.01%
2032	$6,614.86	$6,284.43	$330.43	5.26%
2033	$7,009.89	$6,587.59	$422.30	6.41%
2034	$7,384.38	$6,940.98	$443.40	6.39%
2035	$7,787.04	$7,320.82	$466.22	6.37%
2036	$7,984.97	$7,677.61	$307.37	4.00%
2037	$8,153.14	$7,985.99	$167.15	2.09%
Average	$7,171.56	$6,880.83	$290.73	4.23%

Notes: [1] "Case A" and "Case B" include alternative assumptions regarding state-level policy drivers. "(Exp)" refers to the RGGI Exploratory Policy while "(Flat Cap)" refers to the reference scenario. [2] 2023 usage was calculated from Type A Utilities (bundled generation and transmission) and Type B Utilities (generation only). 2023 historical transmission and delivery rates were calculated from Type C utilities (transmission only). [3] Future electricity consumption is assumed to grow at the same rate as IPM's Case A or Case B load forecast. [4] Reinvestment scenarios reflect alternative assumptions regarding the impact of state-level projected spending of RGGI proceeds on consumer electric bills. Energy efficiency and beneficial electrification is modeled as a volumetric credit to electricity customers.

Sources: [A] ICF, "RGGI Program Review - Case Results." [B] EIA Form-861: Sales Utility to End Customer, 2023.

ANALYSIS GROUP

Customer Bill Analysis

Analysis Group, Inc.
June 25, 2025

ANALYSIS GROUP

Methodology

- Analysis Group calculated consumer bills under the RGGI program update and status quo policies for different state policy and reinvestment scenarios over the 2028-2037 modeling period:
  - ICF modeled wholesale electricity prices and allowance proceeds for the RGGI program update and status quo policies. The status quo policy assumes that RGGI allowance prices equal a volume-weighted average of the twelve most recent auctions.
  - AG collected state-level data from EIA on electricity consumption and transmission and distribution (T&D) rates by customer class. We use ICF's state-level projections of load growth to model changes in electricity consumption over the modeling period.
  - We model the net bill impacts of changes in wholesale electricity prices on state-level indexed renewable energy credit (REC) payments.
  - We model two state policy scenarios. Case A assumes that only currently contracted renewables are brought online, and Case B assumes that all on-the-books state policies are in effect over the modeling period.
  - Using state-level projections of proceeds reinvestment, we model three reinvestment scenarios:
    1. No reinvestment;
    2. Bill assistance only, and;
    3. Bill assistance, energy efficiency spending, and beneficial electrification.

Results

1. Adopting the program update would not increase electricity bills compared to the current price environment and may even result in slight savings.

2. Bill impacts are small in magnitude (under ±1%) across modeled scenarios even prior to considering the reinvestment of auction proceeds (accounting for reinvestment further attenuates bill impacts).

3. Bill impacts from the program update are not significantly driven by success of other state decarbonization policies – successful state decarbonization results in greater bill savings, but slower decarbonization does not result in bill increases.

ANALYSIS GROUP

RGGI Average Bill Impacts

Case A*

Monthly Bill - No Reinvestment of RGGI Proceeds				
Customer Class	Case A (Policy Scenario)	Case A (Current RGGI Price)	Monthly Difference ($2022)	Percent Difference
Residential	$96.26	$95.86	$0.40	0.41%
Commercial	$618.40	$614.82	$3.58	0.57%
Industrial	$9,055.15	$8,994.51	$60.64	0.66%

Monthly Bill - Projected State-Level Bill Assistance				
Customer Class	Case A (Policy Scenario)	Case A (Current RGGI Price)	Monthly Difference ($2022)	Percent Difference
Residential	$96.07	$95.77	$0.30	0.31%
Commercial	$616.61	$613.93	$2.68	0.42%
Industrial	$9,047.86	$8,990.89	$56.97	0.62%

Monthly Bill - Projected State-Level Bill Assistance, Energy Efficiency Spending, and Beneficial Electrification Spending				
Customer Class	Case A (Policy Scenario)	Case A (Current RGGI Price)	Monthly Difference ($2022)	Percent Difference
Residential	$95.15	$95.31	-$0.16	-0.20%
Commercial	$608.31	$613.93	-$5.61	-0.99%
Industrial	$8,897.79	$8,990.89	-$93.10	-1.14%

Case B*

Monthly Bill - No Reinvestment of RGGI Proceeds				
Customer Class	Case B (Policy Scenario)	Case B (Current RGGI Price)	Monthly Difference ($2022)	Percent Difference
Residential	$97.90	$98.49	-$0.59	-0.61%
Commercial	$611.65	$616.96	-$5.32	-0.88%
Industrial	$9,533.59	$9,611.21	-$77.62	-0.84%

Monthly Bill - Projected State-Level Bill Assistance				
Customer Class	Case B (Policy Scenario)	Case B (Current RGGI Price)	Monthly Difference ($2022)	Percent Difference
Residential	$97.84	$98.42	-$0.58	-0.61%
Commercial	$611.08	$616.30	-$5.22	-0.86%
Industrial	$9,531.25	$9,608.46	-$77.21	-0.84%

Monthly Bill - Projected State-Level Bill Assistance, Energy Efficiency Spending, and Beneficial Electrification Spending				
Customer Class	Case B (Policy Scenario)	Case B (Current RGGI Price)	Monthly Difference ($2022)	Percent Difference
Residential	$97.53	$98.06	-$0.52	-0.55%
Commercial	$608.34	$613.03	-$4.69	-0.79%
Industrial	$9,479.44	$9,546.32	-$66.88	-0.75%

Notes: All results are load-weighted.

* Case A and Case B represent different sets of assumptions regarding clean energy deployment. More information can be found here: https://www.rggi.org/sites/default/files/Uploads/ProgramReview/2024/Third_Program_Review_Update_9-23-2024.pdf