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## **ENVIRONMENTAL PROTECTION**

### **AIR QUALITY, ENERGY, AND SUSTAINABILITY**

#### **CO<sub>2</sub> Budget Trading Program**

**Adopted Amendments:** N.J.A.C. 7:27-22.1 and 22.16, and 7:27A-3.2, 3.5, and 3.10

**Adopted New Rules:** N.J.A.C. 7:27-2.28 and 7:27C

Proposed: December 17, 2018, at 50 N.J.R. 2482(a).

Adopted: April 12, 2019, by Catherine R. McCabe, Commissioner, Department of Environmental Protection.

Filed: May 20, 2019, as R.2019 d.063, **with non-substantial changes** not requiring additional public notice (see N.J.A.C. 1:30-6.3).

Authority: N.J.S.A. 13:1B-3(e), 13:1D-9, 26:2C-1 et seq., particularly 26:2C-45 et seq.

DEP Docket Number: 05-18-11.

Effective Date: June 17, 2019.

Operative Date: June 11, 2019, in accordance with N.J.S.A. 26:2C-8.a.

Expiration Dates: Exempt, N.J.A.C. 7:27;  
March 21, 2020, N.J.A.C. 7:27A; and  
June 17, 2026, N.J.A.C. 7:27C.

The Department is adopting new rules and amendments to establish the New Jersey Carbon Dioxide (CO<sub>2</sub>) Budget Trading Program, which is designed to reduce anthropogenic emissions of carbon dioxide (CO<sub>2</sub>), a greenhouse gas, in an economically efficient manner, from large fossil fuel-fired electricity generating units in New Jersey. These sources of CO<sub>2</sub> emissions

are referred to as CO<sub>2</sub> budget units. The CO<sub>2</sub> Budget Trading Program is New Jersey's commitment to the Regional Greenhouse Gas Initiative (RGGI), a regional, cooperative program to cap and reduce CO<sub>2</sub> emissions from fossil fuel fired units producing 25 or more megawatts of power in the participating states to address the significant challenge of climate change.

The CO<sub>2</sub> Budget Trading Program is a cap-and-trade program, which is a market-based approach used to control pollution by providing economic incentives for achieving reductions in CO<sub>2</sub> emissions from the electric generating sector. The RGGI participating states establish a regional CO<sub>2</sub> budget allowance cap, which represents the sum total of the participating state's CO<sub>2</sub> emissions annual base budgets. Each year, each participating state issues CO<sub>2</sub> allowances in an amount equivalent to its annual base budget. Each allowance represents the limited authorization to emit or discharge one ton of CO<sub>2</sub>. CO<sub>2</sub> budget sources in the participating states are required to hold allowances equivalent to their emissions. The vast majority of the allowances are distributed through quarterly, regional CO<sub>2</sub> allowance auctions, which are the main platform for CO<sub>2</sub> budget sources to purchase CO<sub>2</sub> allowances. Quarterly auctions are held on behalf of the states as a single auction, administered by RGGI, Inc. The CO<sub>2</sub> Budget Trading Program is designed to facilitate the auction or sale of the majority of the CO<sub>2</sub> allowances.

The Department's amendments and new rules are based on the CO<sub>2</sub> Budget Trading Program Model Rule (RGGI Model Rule or Model Rule), which is the basis for the coordinating companion rules in the participating states. The development of the RGGI Model Rule has been supported by an extensive regional stakeholder process that engaged the regulated community, environmental non-profits, and other organizations with technical expertise in the design of cap-and-trade programs. Except for those portions of the RGGI Model Rule where

states are provided with program design discretion, the adopted new rules and amendments are materially consistent with the RGGI Model Rule. This consistency is necessary to ensure the fungibility of CO<sub>2</sub> allowances across the participating states, which supports the regional trading of CO<sub>2</sub> allowances and the use of a CO<sub>2</sub> allowance issued in one participating state for compliance by a regulated source in another participating state, and uniform emissions monitoring and reporting requirements.

**Summary of Hearing Officer's Recommendations and Agency Responses:**

The Department held a public hearing on this rulemaking on January 25, 2019, at 9:00 A.M., in the Department's Public Hearing Room, 1st Floor, 401 East State Street, Trenton, New Jersey. Paul Baldauf, Assistant Commissioner for Air Quality, Energy and Sustainability, served as Hearing Officer. Twelve people provided oral comments. After reviewing the comments received during the public comment period, the Hearing Officer recommended that the Department adopt the proposed rules with the modifications described below in the Summary of Public Comments and Agency Responses and in the Summary of Agency-Initiated Changes. The Department accepts the Hearing Officer's recommendations.

A record of the public hearing is available for inspection in accordance with applicable law by contacting:

Department of Environmental Protection

Office of Legal Affairs

ATTN: Docket No. 05-18-10

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This adoption document can also be viewed or downloaded from the Department's websites at <http://www.nj.gov/dep/rules/adoptions.html>.

**Summary** of Public Comments and Agency Responses:

The Department accepted comments on the notice of proposal through February 15, 2019. The following individuals provided timely written and/or oral comments:

1. Dwight Alpern
2. Eric Benson, Clean Water Action
3. Joshua Berman, Sierra Club and Jeff Tittle, New Jersey Sierra Club, endorsed by Environment New Jersey, Environment America, New Jersey Work Environment Council and GreenFaith
4. Sylwia Bialek, Ph.D., and Iliana Paul, Institute for Policy Integrity, New York University School of Law
5. Noah Bucon, Center for Resource Solutions
6. Raymond Cantor, New Jersey Business and Industry Association
7. Joseph Della Fave, Ironbound Community Corporation
8. Tom Fogarty, Recurve Energy Asset Management (Linden Cogen)
9. Henry Gajda, New Jersey League of Conservation Voters

10. Mary Beth Gallagher, Tri-State Coalition for Responsible Investment
11. Gene Grace, American Wind Energy Council
12. Nancy Griffeth, Unitarian Universalists Faith Action
13. Dennis Hart, Chemistry Council of New Jersey
14. Bruce Ho, Natural Resource Defense Council
15. Eileen Howe, Calpine Corporation
16. Erica Jedynak, Americans for Prosperity
17. Anne Kelly, Ceres Business for Innovative Climate and Energy Policy (BICEP) Network
18. Maya Kelty, 3Degrees
19. Pam Kiely and Rama Zakaria, Environmental Defense Fund
20. Adrian Kimbrough, Gabel Associates on behalf of the Independent Energy Producers

of NJ

21. Corinne Kosar
22. Norah Langweiler, Jersey Renews
23. Richard Lawton, New Jersey Sustainable Business Council
24. Brian Lestini
25. Leon Levine, School of Public Health, City University of New York
26. Jonathan Lu, Princeton Student Climate Advocacy and Climate X-Change
27. Doug O'Malley, Environment New Jersey
28. William O'Sullivan
29. David Pringle, Consultant representing Clean Water Action

30. Holly Reed, Gabel Associates on behalf of the Independent Energy Producers of New Jersey

31. Kimberly A. Scarborough, PSEG Services Corporation, on behalf of PSEG Power, LLC

32. Nicky Sheats, Esq., Ph.D., Thomas Edison State University and Jersey Environmental Justice Alliance

33. Nicky Sheats, Esq., Ph.D., New Jersey Environmental Justice Alliance, on behalf of Ironbound Community Corporation

34. Matthew Smith, Food & Water Watch

35. Jordan Stutt, Acadia Center; Georgia Murray, Appalachian Mountain Club; Noah Dubin, Environmental Entrepreneurs; Bruce Ho, Natural Resources Defense Council; Richard Lawton, New Jersey Sustainable Business Council; and John Rogers, Union of Concerned Scientists (joint comments).

36. Jeff Tittel, New Jersey Sierra Club

37. Gray Tuttle, Columbia University

The comments received and the Department's responses are summarized below. The number(s) in parentheses after each comment identify the respective commenter(s) listed above.

**General Comments:**

1. COMMENT: RGGI should address all New Jersey's industries comprehensively, including emissions from their business vehicles fleets. Governor Christie's decisions to relax emissions

and environmental laws after all the improvements that were made since the 1990s negatively impacted New Jersey's air quality. No vehicle should pass inspections unless it meets enhanced emissions standards. (21)

RESPONSE: Emissions from the vehicle fleets owned by the regulated entities fall outside the scope of this rulemaking. The proposed rules and amendments address only the emissions each fossil fuel-fired unit emits through the production of 25 or more megawatts of power; it does not address other sources of emissions from the facility's operation. The State of New Jersey implements a comprehensive inspection and maintenance program for passenger cars and trucks that includes fleet vehicles, as well as a heavy-duty inspection and maintenance program that address larger diesel fleet vehicles.

2. COMMENT: While RGGI focuses solely on the electric generating sector, most of New Jersey's air pollution and greenhouse emissions come from mobile sources. Any strategy to address climate change in the State and across the region needs to encompass all emissions. This is why a broad set of allies are pushing for 100 percent clean renewable energy by 2050. New Jersey recently announced its participation in the Transportation and Climate Initiative to address emissions from the transportation sector. For the RGGI cap and trade program to reach its 2030/2050 emissions goals, New Jersey needs to either expand RGGI beyond the electricity sector or apply a new carbon pricing system on other polluting sectors, particularly transportation. (13, 26, 27, and 35)

RESPONSE: Regulating emissions from New Jersey's transportation sector falls outside the scope of this rulemaking. However, the Department understands that RGGI is just a piece of a

more comprehensive climate plan that must address transportation emissions in a meaningful way. In addition to actions to increase electric vehicle (EV) penetration in the State and ensure adequate EV infrastructure, New Jersey is working regionally to investigate other methods of reducing greenhouse gas emissions from transportation.

3. COMMENT: Research by the Intergovernmental Panel on Climate Change (IPCC) shows there is little more than a decade for the world governments to get on a pathway of emissions reductions to stave off catastrophic climate impacts. Governor Murphy's Executive Order No. 7 (2018) rightly recognizes the dangers of climate change to New Jersey and the need to act. Knowing the long list of climate impacts to New Jersey, including increased frequency of storms, storm surge, sea level rise, flooding, and heat, and their impacts on the State's economy and the health and welfare of this citizens, New Jersey needs to require more ambitious action. Combined with other actions that the Administration has already taken, such as the Clean Energy Act and commitments under the Transportation and Climate Initiative, RGGI needs to be part of a larger program on climate action; an expanded RGGI that can help mitigate the impacts of climate change on the New Jersey Shore and inland communities, while providing a model for other states and for national action to reduce carbon pollution. It is critical that New Jersey not just rejoin RGGI, but be a leader in the program that works to strengthen it in the coming years. (2, 14, 27, and 35)

4. COMMENT: New Jersey should abandon market-based programs like RGGI to discuss policies that would have more profound impacts on climate change in New Jersey. (34)

RESPONSE TO COMMENTS 3 AND 4: Climate change is a critical global issue and responding to climate change and its impacts in New Jersey is among the State's top priority. To that end, one of Governor Murphy's first directives was to initiate rulemaking to permit New Jersey to re-enter RGGI. Statements in the Governor's Executive Order 7 (2018) highlight the importance of rejoining RGGI expeditiously: "in an effort to correct past missteps and realign the State's priorities with those based on sound science designed to mitigate the impacts of global climate change, and more specifically to address the particular impacts of climate change in at-risk communities..." However, the DEP recognizes that RGGI is just the first step in meeting the goal of the Global Warming Response Act, N.J.S.A. 26:2C-37 et seq., to achieve an 80 percent reduction in Statewide greenhouse gas emissions from 2006 levels. While RGGI is not a panacea, it is a proven program with a successful track record for reducing greenhouse gas emissions from the electric generating sector, while also providing funding for targeted re-investment. The State's plan to meet its 2050 greenhouse gas goal will build off RGGI's success.

5. COMMENT: New Jersey cannot accelerate its fossil fuel economy at the same time it is working to address the climate crisis. Allowing the five power plants that are either under construction or under permit review in New Jersey will make the RGGI cap meaningless and will impede the State's ability to reach its 100 percent renewable goal. This is why a coalition of organizations is calling for a moratorium on fossil fuel infrastructure as part of the energy National Association of State Energy Officials (NASEO) plan process. That should be the context for this rulemaking for RGGI to ensure a continued reduction in carbon pollution from the fossil fuel sector. (27 and 36)

RESPONSE: Implementing a moratorium on new fossil-fuel infrastructure falls outside the scope of this rulemaking. Any new plants constructed that are subject to the RGGI cap will increase demand for the RGGI CO<sub>2</sub> allowances. This is likely to result in upward price pressure on all CO<sub>2</sub> allowances and higher costs for fossil fuel generating sources. This is the core of RGGI's program design. RGGI is not designed to directly reduce carbon emissions, but instead is designed to make fossil fuel electric generating units costlier to operate, so that their owners will choose to operate them less, or replace them with newer, carbon-neutral energy alternatives.

6. COMMENT: The organizations within the National Grassroots Environmental Justice Movement do not support carbon trading programs like RGGI because they do not mandate that any power plant at any location reduce its emissions. Instead, so long as the plants that are part of a carbon trading system collectively attain a stated CO<sub>2</sub> reduction target, the policy goal is satisfied, even if some plants located in environmental justice communities do not reduce their emissions. From an environmental justice point of view, this is not acceptable because the environmental justice community wants these plants to reduce their emissions in order to reduce co-pollutant concentrations in overburdened communities to improve the health of residents. In RGGI, as it is currently configured, plants located in environmental justice neighborhoods could buy allowances instead of reducing their emissions. The questions of how many plants located in environmental justice communities would reduce their emissions, which plants located in environmental justice communities would reduce their emissions, and what would be the extent of any reductions should not be left to the market to answer, but instead

should be answered by policymakers, community groups, environmental justice organizations, and community residents working together. (7, 32, and 33)

RESPONSE: The purpose of RGGI (and, therefore, the adopted rules) is to holistically address CO<sub>2</sub> emissions from the electric generating sector by imposing a CO<sub>2</sub> emissions cap, which will decrease over time. The adopted rules do not mandate site-specific CO<sub>2</sub> emissions reductions, as CO<sub>2</sub> emissions do not have the same local impacts as criteria and hazardous air pollutants. Instead, the goal of this rulemaking is to reduce the overall presence of CO<sub>2</sub> in the atmosphere to slow the process of global warming and its impacts on the State. The State's participation in RGGI will, in combination with other actions, such as the New Jersey Clean Energy Act mandates, drive the entire region towards a carbon-neutral energy system. This endpoint will also reduce the health impacts from other air pollutants.

7. COMMENT: RGGI's guidelines are not ambitious enough to meet New Jersey and International emissions reduction goals, as only 15 percent of State emissions come from electricity, resulting in too low of a carbon price. RGGI's maximum price of emissions, thus far, is \$7.50/ton CO<sub>2</sub>, whereas a minimum price of \$40.00 to 80.00/ton CO<sub>2</sub> would be needed by 2020 to comply with the Paris climate agreement. Therefore, although rejoining RGGI is an important symbolic step for New Jersey, achieving future reductions will demand bold policy leadership moving forward, especially as the lowest-hanging greenhouse gas emissions cuts in the electricity sector run out. (26)

RESPONSE: The Department acknowledges that the adopted rules implement a market-based policy that addresses only a portion of the State's CO<sub>2</sub> emissions. The Department is working

on a comprehensive climate plan to meet its Global Warming Response Act requirements and that plan will look at what mix of policies are needed to build on benefits from the adopted rules and meet the State's 2050 greenhouse gas limit.

8. COMMENT: Power sector emissions compromise the health and lives of many in New Jersey. Particulate matter from the burning of coal has been linked with increased prevalence of bronchitis, asthma, and lung cancer. In addition, the "Association Between Residential Proximity to Fuel-Fired Power Plants and Hospitalization Rate for Respiratory Diseases" (Environmental Health Perspectives), noted that residents of zip codes containing at least one fuel-fired power plant (coal, oil, natural gas, landfill gas, and solid waste) had an 11 percent increase in hospitalizations for asthma, 15 percent increase in hospitalizations for acute respiratory infection, and 17 percent increase in hospitalizations for chronic obstructive pulmonary disease. Continued exposure only worsens those conditions. (19)

RESPONSE: This rulemaking addresses only CO<sub>2</sub> emissions from fossil fuel-fired power plants. Other power sector emissions are outside the scope of this rulemaking. However, the Department has emission standards for fossil fuel combustion equipment including electric generating units used by the power sector. These standards include particulate matter, oxides of nitrogen (NO<sub>x</sub>), and oxides of sulfur (SO<sub>x</sub>) emissions. Each power facility in the State must comply with these standards as part of its operating permits, and is subject to enforcement action if it exceeds those standards. Because New Jersey exceeds the ozone National Ambient Air Quality Standard (NAAQS) and only recently attained the particulate matter 2.5 NAAQS, the

State's permit limits are some of the toughest in the nation, requiring the installation of best available control technology (BACT) and state-of-the-art (SOTA) controls on these facilities.

9. COMMENT: RGGI needs to be part of a bigger strategy. New Jersey needs to regulate CO<sub>2</sub> as a pollutant, just like it does with NO<sub>x</sub> and SO<sub>x</sub>. New Jersey needs to move forward to 100 percent renewable and go after greenhouse gases in a more aggressive way. (36)

RESPONSE: Responding to climate change will require the State to implement a number of different policies and mechanisms to address the various sources of CO<sub>2</sub>. As discussed in the Responses to Comments 4 and 5, New Jersey's rejoining RGGI is just one mechanism to help the State meet its 2050 Global Warming Response Act goal. The most practical alternative immediately available to further reduce CO<sub>2</sub> emissions from the electric generating sector is to continue to promote less-carbon-intensive ways of generating electricity. The declining emissions cap that RGGI establishes will promote the reduction in CO<sub>2</sub> from the electric generating sector. As CO<sub>2</sub> emission control technology advances in feasibility, the Department may develop rules to require sources to implement control technologies to reduce those emissions.

10. COMMENT: RGGI would be ineffective in CO<sub>2</sub> attainment due to the trans-border characteristics of CO<sub>2</sub> emissions and impacts. Data shows that emissions from major facilities are decreasing because of better controls/pollution prevention and process improvements, making them a decreasing source of environmental concerns. Since 1988, New Jersey's industry has reduced Toxic Release Inventory (TRI) emissions by 96 percent. (13)

RESPONSE: The regional nature of CO<sub>2</sub> emissions is why a market-based program like RGGI is successful at reducing CO<sub>2</sub> emissions in the power sector. By driving the sector economically towards non-carbon alternatives, RGGI is effective in reducing CO<sub>2</sub> emissions from electric generating units in the RGGI participating states.

11. COMMENT: Before regulating carbon emissions or imposing caps, the State should focus on policies that will not put the State in an economic disadvantage and should foster the development and implementation of any new technologies that will assist in further reducing emissions. New Jersey's industry has been, and continues to be, committed to decreasing its greenhouse gas footprint. However, while industry is energy intensive, it also manufactures the products that allow other industries and the general public to become more energy efficient and reduce their greenhouse gas footprint. For every ton of CO<sub>2</sub> emitted in manufacturing the products of chemistry, two tons of CO<sub>2</sub> emissions are saved. (13)

RESPONSE: The State has programs aimed at helping industry and others become more energy efficient, as well as reviewing and exploring new technologies. However, the goal of the adopted rules is to ensure that any further energy needs would be met with cleaner, less-carbon-intensive fuels through the implementation of market-based strategies that allow industry to determine how it will operate within the constraints of the regional trading program.

12. COMMENT: The Department should explicitly consider how the rulemaking affects the New Jersey Energy Master Plan (EMP), the State's zero emissions certificate (ZEC) program, and

any other policies that affect greenhouse gas emissions, and ensure harmony between these policies. For example, how will RGGI participation affect the subsidies for nuclear power and renewable energy? Would RGGI-caused electric price increases for nuclear power plants and renewable energy result in fewer subsidies to avoid windfall profit? The overall increase in power prices resulting from RGGI should be considered in the implementation of subsidies. Furthermore, if New Jersey is setting the price of emissions at a price lower than the socially optimal social cost of greenhouse gases figure, as it would by joining RGGI and does with the ZEC program, then the Department should be explicit about why it has made this choice. (4 and 28)

RESPONSE: This comment is outside the scope of this rulemaking, to the extent that the commenter suggests that the Department should consider how adoption of the CO<sub>2</sub> Budget Trading Program rules will affect the development of the Energy Master Plan (EMP) and the awarding of zero emission certificates (ZECs) to eligible nuclear power plants. This is not possible for two reasons. First, it is the responsibility of the BPU, rather than the Department, to develop the EMP and to determine if ZECs should be awarded and to what extent. Second, timing of these three separate actions does not permit the Department to consider the effects of this rulemaking on the EMP and ZEC awards. The CO<sub>2</sub> Budget Trading Program rules will be adopted before the release of the EMP. The BPU already made a determination, on April 18, 2019, to approve the award of ZECs for all three New Jersey nuclear power plant applications. The Department is coordinating with the BPU as they develop the EMP, in conjunction with its efforts to development of the 2050 recommendations report mandated by the Global Warming

Response Act, N.J.S.A. 26:2C-37 et seq. The Department will be mindful of how the CO<sub>2</sub> Budget Trading Program rules impact the analysis set forth in those plans.

With regard to establishing CO<sub>2</sub> emission prices, the modeling performed by the Department in its efforts to rejoin RGGI includes a projected price of CO<sub>2</sub> allowances based on New Jersey's participation in RGGI. However, the actual CO<sub>2</sub> allowance price is generally established by the demand for allowances at each quarterly auction held by RGGI.

13. COMMENT: New Jersey is already on the path to reducing its long-term natural gas use for power generation without causing an increase in out-of-State coal use. The State's 3,500-megawatt wind goal and 50 percent renewable energy goal, both by 2030, should result in less use of New Jersey's natural gas-fired power plants and out-of-State coal-fired plants as the new zero carbon electricity comes online over the next decade. Doing so without increasing the cost of gas fired electricity is good for the environment and the ratepayer. The 3,500 megawatts of wind should produce approximately 15 million megawatt hours. New Jersey's fossil fuel-fired units, mostly natural gas, produce about 40 million megawatt hours per year. If the new wind power replaces fossil fuel electric production, there would be a decrease in New Jersey power plant CO<sub>2</sub> emissions of well over 30 percent, meeting the current RGGI goal of a 30 percent CO<sub>2</sub> reduction by 2030 without the proposed CO<sub>2</sub> Budget Trading Program rules. New Jersey's additional commitments to further increase energy efficiency and solar will put the State well ahead of the State's 2030 goal for reduction of fossil fuel use for electricity. (28)

RESPONSE: All the mandates identified by the commenter were integrated into the State's RGGI modeling, posted on the Department's RGGI website at

<https://www.state.nj.us/dep/aqes/rggi.html#/>. This modeling showed environmental benefits from New Jersey's re-entry into the RGGI. The adopted rules will act as another mechanism to direct the transition to a clean energy economy, in New Jersey and throughout the region.

14. COMMENT: Provisions that allow funds from the auction of pollution credits to finance the construction of new gas-fired power plants equate to a purported climate plan, further entrenching the State's dependence on fossil fuels. The supposed rationale is that at some point there will be technology to capture emissions, but even if the State was able to require the capture of all the carbon released from the burning of natural gas for electricity, there is still the problem of methane, a potent greenhouse gas, leaking from pipelines, infrastructure, and drilling sites. Under such a scenario the State could find itself reporting zero greenhouse gas emissions on paper, while continuing the actual warming of the planet. (34)

RESPONSE: The Department interprets this comment as referencing the plan for spending of the State's proceeds from RGGI auctions, outlined in the Global Warming Solutions Fund rules, N.J.A.C. 7:27D. Accordingly, the comment is beyond the scope of this rulemaking. The Department refers the commenter to the Department's response to similar comments set forth in the adoption document for the Global Warming Solutions Fund rules, published elsewhere in this issue of the New Jersey Register. These adopted rules only address CO<sub>2</sub> emissions from the electricity generating sector. The Department acknowledges that to meet its 2050 Global Warming Response Act limit, it will need to address other greenhouse gas emissions, including methane. However, that is beyond the scope of this rulemaking.

**Supporting Comments:**

15. COMMENT: New Jersey's rejoining RGGI will help mitigate climate change, protect public health, and benefit residents both environmentally and economically. Under RGGI, emissions have dropped over the region by 35 percent, approximately equivalent to taking 139,000 cars off the road or planting 4.6 million trees. These benefits extend to the public health sector, as reductions in air pollution have produced an estimated \$5.7 billion in health savings across the RGGI states. Finally, re-joining RGGI sets the precedent for continued and further action to address climate change and push State innovation. (1, 3, 8, 9, 22, 24, 25, 26, 36, and 37)

16. COMMENT: New Jersey's participation in RGGI from 2009 through 2011 produced significant environmental and economic benefits, including more than \$150 million in growth and 1,700 job-years (that is, one job for one year; for example, creating 1,000 jobs that last two years would equal 2,000 job-years) added to the State's economy. When the Christie Administration unilaterally withdrew New Jersey from RGGI, the State lost all these benefits moving forward, depriving New Jersey of nearly \$300 million in revenues that could have been invested in clean energy and other programs to help prepare for and combat climate change while generating benefits for residents. Market-based programs, including RGGI, are well suited to reducing greenhouse gas emissions while benefiting local economies by increasing the flow of money and creating jobs in the energy efficiency sector and related industries. During the years RGGI has been active, the region has contributed \$1.3 billion in net economic benefits that have then been invested in energy efficiency, clean energy, and other programs. Within the current RGGI region, the updated RGGI Model Rule is expected to create almost \$4 billion in economic growth and add over 34,000 job-years. New Jersey's rejoining RGGI represent a

tremendous opportunity to catalyze innovation that will drive economic growth, create thousands of good paying jobs, create a more vibrant, sustainable and equitable economy fueled by clean energy, and demonstrate how market-driven innovation and smart public policy can work together to create shared and sustainable prosperity. (3, 10, 11, 14, 19, 22, 23, 26, 27, 35, and 36)

17. COMMENT: There is currently a lack of national leadership on addressing climate change, requiring states to take the lead. Given RGGI's success thus far, New Jersey's rejoining is a positive first step that might lead other states to follow. New Jersey must return to the table and embrace a leadership role in advancing our clean energy future. (10, 23, and 25)

18. COMMENT: New Jersey should be commended for proposing rules that align with the overall framework of the 2017 RGGI Model Rule and including several improvements that the existing RGGI states have added since New Jersey first participated in RGGI, such as:

- The decision to cut carbon pollution by three percent a year;
- The inclusion of the emissions containment reserve, which is a unique new mechanism that will further strengthen RGGI in future years when the cost of doing so are low;
- The inclusion of a banked allowance adjustment from 2021 to 2025;
- The decision to auction RGGI carbon allowances through RGGI's quarterly auctions so that the benefits of the program can be captured and given back to consumers.
- Provisions related to CO<sub>2</sub> emissions monitoring, compliance requirements for RGGI-covered sources, State enforcement of these requirements, and allowance tracking; and
- Implementing, with caveats, the "minimum reserve price" and Cost Containment Reserve (CCR).

Beyond the mutual acceptance of each other's allowances, RGGI states use a shared auction platform and tracking system that eases the administrative burden on the individual states. Joining states also benefit from the learned knowledge from a decade of experience in implementing a cap-and-trade system that addresses implementation issues. (3, 14, and 35)

19. COMMENT: Promoting a business philosophy of the triple bottom line (people, planet, and profit) versus a single bottom line (maximizing shareholder value and short-term profits) provides the view of RGGI not as the solution, but as an important policy intervention that addresses what is classically a market failure; that the price of fossil fuels has never included the social cost of asthma, health related cost, and carbon pollution. This gives the market distorted price signals. RGGI is an important policy intervention to taking a step in the right direction to address that market failure. (23)

20. COMMENT: Cap-and-trade programs, such as RGGI, place a clear price on carbon emissions in a way that allows such a price to be reflected in wholesale power prices, and are designed and administered in a way that minimizes market distortions. They also set a stable and predictable policy for investors to understand. By rejoining RGGI, New Jersey takes an important step toward internalizing the environmental externalities associated with fossil-fuel-based electricity generation, thereby expanding the scope of the regional market, increasing competitiveness, and improving market efficiency and the resiliency of the electrical grid. New Jersey's participation will also likely reduce the total cost of carbon abatement by allowing the marginal cost of abatement to equilibrate across a larger set of emitters, lowering costs of compliance across the region. (4, 15, 17, and 18)

RESPONSE TO COMMENT 15 THROUGH 20: The Department acknowledges the commenters' support for its efforts to rejoin RGGI as a key component of its efforts to address climate change in New Jersey. Rejoining RGGI provides a multitude of benefits, both environmental and economic, makes New Jersey an example as a climate and sustainability leader. The State's decision to align as closely as possible with the RGGI Model Rule not only respects the experience of RGGI's participating states, but also ensures the integrity of the RGGI market. Expanding the scope of the regional market will improve the program overall.

**Dispatch Shifting (Leakage):**

21. COMMENT: Air contaminant emissions, including CO<sub>2</sub>, could increase in the PJM electric grid region if New Jersey rejoins RGGI without an affirmative mitigation plan to address the real possibility, and likely probability, that some electric production would shift from New Jersey to other non-RGGI PJM states. This phenomenon, known as dispatch shifting or leakage, occurs when the additive RGGI allowance cost make New Jersey fossil-fuel power more expensive than non-RGGI PJM states' fossil fuel power. Since PJM dispatches generators on a cost competitive basis from lowest to highest, this increased cost could move New Jersey generators up the supply stack, leading to more dispatch and production from dirtier generators in non-RGGI states within PJM. Since New Jersey's grid is one of the nation's cleanest, relying almost exclusively on natural gas and nuclear power, as well as some renewables, leakage from energy generated outside the State would be dirtier. Leakage would also apply to non-greenhouse gas emissions, such as sulfur dioxide (SO<sub>2</sub>) and NO<sub>x</sub>, where New Jersey is still affected by emissions from upwind states like Pennsylvania and Ohio.

The replacement of any New Jersey natural gas power with PJM coal power would cause higher emissions in PJM than the decreases in emissions in New Jersey that would result from reduced operation of gas fired power plants in the State. The CO<sub>2</sub> emissions from a typical coal-fired power plant in PJM are more than a factor of two higher than the emissions from the modern gas-fired combined cycle power plants from which New Jersey produces over 90 percent of its fossil fuel fired electricity. The ratio of coal-fired to gas-fired emissions is much greater than two-to-one for SO<sub>2</sub>, NO<sub>x</sub>, fine particles and most other air contaminants. New Jersey can avoid the harm caused by leakage by not rejoining RGGI unless there is mitigation plan in place. (6, 20, 28, and 30)

22. COMMENT: New Jersey should rejoin RGGI with power market rules that adequately address leakage. The preferred option would be to include leakage provisions in companion rules to the proposed rules. Alternatively, but riskier, would be a commitment to address leakage in a future rulemaking. Establishing regulatory leaking provisions along with the other RGGI states in PJM would be best, but New Jersey should be prepared to address leakage on its own. (28)

23. COMMENT: The Department's adopted rules should parallel an adoption by the BPU and the Department of a leakage mitigation plan. This plan should include, but not be limited to, engagement with PJM to create a carbon pricing component to PJM's dispatch algorithms, similar to efforts by the California and New York Independent System Operators (ISO). These options, in addition to addressing leakage, also support a range of other positive benefits for New Jersey and the region, such as: allowing for competitive parity among generators around the region; promoting consistency with New Jersey's efforts under the GWRA; supporting more

appropriate generation planning with respect to what type of resources should be developed, with a focus on encouraging low carbon resources; and allowing for a more environmentally efficient dispatch of generation in the Day Ahead and Real Time markets in PJM. These experiences can serve as a guide for New Jersey to reduce leakage before it joins RGGI, and the Department (and BPU) should commit to advocating for such approaches at PJM. (30 and 31)

24. COMMENT: PJM's Two-Pass dispatch approach is a viable option for the RGGI PJM states to consider to mitigate leakage. In the first pass, non-RGGI resources are dispatched without a carbon-cost to determine their base schedule to serve load in the non-RGGI sub-region. Imports into the RGGI sub-region are not allowed during this pass. This is referred to as a border constraint. This step is used to establish a base dispatch schedule for resources in the non-RGGI sub-region without considering the needs or generation of the RGGI sub-region. The second pass removes the import constraint from the RGGI sub-region and dispatches all resources to serve load within the RGGI sub-region, including their carbon cost. Resources in the non-RGGI sub-region are dispatched with a shadow carbon price. Imports from non-RGGI resources are only allowed if resources clear with the added (shadow) carbon price. As part of a leakage mitigation plan, the State should strongly request the support of PJM and its stakeholder process as it considers the most efficient, economic, and timely solution. (20 and 31)

25. COMMENT: Gabel Associates, a consultant to the Independent Energy Providers of New Jersey, conducted analysis to quantify the emissions leakage that may result from New Jersey's participation in RGGI. Specifically, Gabel used the AURORA model to simulate 2020 to 2030 generator dispatch subject to the RGGI CO<sub>2</sub> emissions limits, covering PJM and the entire

Eastern Interconnect, the power market in the eastern half of the United States, and including data updates to current natural gas price forecasts, generator additions and retirements, renewable energy and energy efficiency impacts, coal prices, and energy load growth rates, among other factors. Overall, this modeling shows a significant increase in total CO<sub>2</sub> emissions when comparing a “Reference Case” (New Jersey does not join RGGI) to a “Policy Case” (New Jersey does join RGGI). Although the modeling results demonstrate a decrease in New Jersey emissions, these reductions are less than the increase in emissions from neighboring states – regardless of how big or small the allowance cap is. If New Jersey sets the annual allowance cap at 18 million tons of CO<sub>2</sub> in 2020, New Jersey emissions will fall by approximately two million tons in that year, but total emissions, despite New Jersey’s decreased emissions, will rise by nearly one million tons. In other words, the two-million-ton CO<sub>2</sub> reduction in New Jersey is replaced by three million tons of CO<sub>2</sub> generated elsewhere. (20 and 30)

26. COMMENT: Gable Associates’ leakage modeling further shows that leakage becomes even more pronounced at lower allowance cap thresholds. If New Jersey sets the annual allowance cap at 12,600,000 tons of CO<sub>2</sub>, as proposed for 2030, New Jersey emissions will fall by nine million tons, but total net Eastern Interconnect emissions will rise by more than three million tons that year despite the reduction in New Jersey emissions (that is, New Jersey’s nine-million-ton reduction is replaced by nearly 13 million tons elsewhere). In both years, higher-emitting generators outside of New Jersey displace lower-emitting New Jersey generators as the effects of changing generator offer prices cascade throughout the region. These results show that implementing RGGI without a plan to mitigate leakage will decrease in-State CO<sub>2</sub> generation but increase total CO<sub>2</sub> emissions – defeating the very purpose of RGGI. (30)

27. COMMENT: Gabel Associates also reviewed the modeling results posted by Department on its website in support of its proposed cap. The State's modeling results focus only on demonstrating that joining RGGI will reduce emissions inside New Jersey and provide no modeling of leakage and any associated increases in out-of-State emissions. Since New Jersey is part of a multistate, regional power pool that employs regional dispatch, it is not accurate to view New Jersey's emissions in a vacuum. Looking solely at New Jersey results is misleading as it leads to false comfort and an inaccurate conclusion that CO<sub>2</sub> emissions will decline, when in reality greenhouse gas emissions will increase unless New Jersey includes a mitigation plan in its RGGI roll-out. Further, the State's modeling is based upon the *combined* impact of both New Jersey and Virginia joining RGGI simultaneously. By estimating the combined impact of both states, it becomes impossible to identify how New Jersey, independently, will affect regional emissions. This means that melding Virginia into the analysis masks leakage resulting from New Jersey's participation in RGGI. Although both New Jersey and Virginia intend to join RGGI, they will have different impacts on emissions across the region. If Virginia joins, regional emissions may decrease because low-emitting generators outside of Virginia will replace high-emitting generators inside Virginia. Conversely, if New Jersey joins, regional emissions will increase because *high-emitting* generators outside of the State will replace *low-emitting* generators inside of the State. This is a crucial distinction that the State modeling fails to capture. It is imperative that the Department fully understand this impact and mitigate such impacts by adoption of a leakage mitigation plan. (20 and 30)

28. COMMENT: Leakage changes the estimated costs and benefits of joining RGGI. In its analysis of the potential health benefits associated with the rulemaking, the Department

focuses only on emissions reductions in New Jersey rather than RGGI's impact on regional emissions. This significant oversight demonstrates that the Department fails to accurately capture the potential costs and benefits attributable to RGGI. The Department estimates that implementing RGGI in New Jersey will result in additional health benefits totaling nearly \$200 million per year. However, if leakage is not addressed and mitigated when New Jersey joins RGGI, emissions will rise and result in a net health cost – not a health benefit. To accurately value the health consequences associated with New Jersey's prospective participation in RGGI, the costs attributable to the net change in carbon emissions must be identified. The U.S. Interagency Working Group's (IWG) Social Cost of Carbon (the valuation used by BPU in its energy efficiency assessment activity) provides a widely accepted conservative estimate of social costs. Using this valuation for the social cost of carbon, New Jersey's emissions leakage from 2020 through 2030 will result in more than \$1.8 billion in added health costs – not \$200 million in added health benefits, as projected in the rulemaking. This means the program will result in a net cost to society because emissions leakage will result in more carbon emitted than avoided. (30)

29. COMMENT: It is appropriate to reflect an established price on carbon in the market price of energy. That said, many of PSEG's generation assets are sold into the PJM market, which has a different footprint. New Jersey needs to ensure implementation of RGGI in a way that does not cause unintended consequences of leakage for New Jersey's clean generation fleet that competes against power plants in non-RGGI states. Specifically, New Jersey needs to ensure effective and equitable methods for distributing emission allowances or similar

instruments; and minimization of “leakage” issues that result from differing requirements from one state to the next. (15 and 30)

30. COMMENT: Leakage creates substantial risks to New Jersey ratepayers and generators. Specifically, if economic benefits flow out of State, it will be to the detriment of generating units in New Jersey, while at the same time, costs to New Jersey ratepayers will rise – all without the intended environmental benefit to justify it. In other words, not only will New Jersey’s generators be disadvantaged, ratepayers will pay a premium with no offsetting benefit. (30)

31. COMMENT: Recent adjustments to the RGGI cap and implementation of the emissions containment reserve (ECR) are expected to drive increases in the allowance price, and leakage becomes more pronounced as the allowance price increases. Neither the proposed provisions allowing the Department to determine whether to include CO<sub>2</sub> allowances for a future control period in the auction to ensure the availability of sufficient allowances to protect the financial stability of CO<sub>2</sub> budget sources in New Jersey, nor the use of the auction proceeds to implement energy efficiency measures to reduce electricity demand will be sufficient to alleviate leakage. The release of an additional small amount of allowances (that is, two million tons) will not have a great impact on overall allowance prices, and while energy efficiency measures will lower overall demand in the State, it will not remedy the impact of the cost adder to a unit’s bid into PJM’s competitive market. (31)

RESPONSE TO COMMENTS 21 THROUGH 31: The BPU is legislatively required to consider and address any dispatch shifting from New Jersey’s participation in RGGI. Specifically, the Global Warming Solutions Fund Act amendments to the Electric Discount and Energy Competition Act

at N.J.S.A. 48:3-87.c(2) require the BPU to “adopt, pursuant to the Administrative Procedure Act, a greenhouse gas emissions portfolio standard to mitigate leakage or another regulatory mechanism to mitigate leakage applicable to all electric power suppliers and basic generation service providers that provide electricity to customers within the State.” Below is a discussion of the BPU’s efforts to investigate leakage from the State’s previous participation in RGGI.

The BPU’s February 27, 2008 Order in *In the Matter of a Greenhouse Gas Emissions Portfolio Standard and Other Regulatory Mechanisms to Mitigate Leakage*, Docket No. EO08030150, which can be found at <http://njcleanenergy.com/files/file/2-27-08-8D.pdf>, initiated a proceeding to gather relevant information about a greenhouse gas emissions portfolio standard. This proceeding included a public stakeholder process and public hearing on the appropriate measures to mitigate leakage. In its December 17, 2008 Order in the same case, which can be found at <http://njcleanenergy.com/main/njcep-policy-updates-request-comments/policy-updates-and-request-comments>, after extensive written public stakeholder comment, three leakage mitigation stakeholder meetings held on April 30, 2008, June 5, 2008, and July 8, 2008, to receive comments and testimony provided at public hearing on July 29, 2008, the BPU determined its findings in this matter.

In summary, the BPU found, after careful consideration of the input received by the various interested parties, that aggressively supporting the actions in the 2008 Energy Master Plan (EMP) to make New Jersey self-sufficient in satisfying the State’s energy needs and reducing the State’s need to import electricity would serve to mitigate leakage.

The December 17, 2008 Order found that if New Jersey acted alone in implementing any or all of the specific proposals submitted at the time including a carbon procurement adder,

carbon procurement emission rates, greenhouse gas emission portfolio standard, and load-based emissions caps, may not be effective in mitigating leakage without significant risks over the consistency of such an approach with the Interstate Commerce Clause in the United States Constitution. In addition, the BPU found that it cannot determine whether RGGI will cause an increase in imports of electricity or the extent of any such increase, because the existence or extent of such an increase will depend heavily on factors beyond RGGI, including, but not limited to, weather, fuel prices, and transmission upgrades, as well as the willingness to finance and build new or expanded generation.

The two Orders cited above are still in force and while it has been more than 10 years since BPU issued these Orders, the current energy data developed and managed by the BPU, as the State's energy office, indicates that New Jersey is more self-sufficient in satisfying the State's energy needs and has reduced its need to import electricity. New Jersey electricity demand has been reduced over the last 10 years by approximately 10 million megawatt-hours (MWh) due to the implementation of energy efficiency appliance standards and building energy codes, and energy efficiency and renewable energy initiatives funded through the BPU's Clean Energy Program in coordination with the electric and natural gas utilities. Over the last 10 years, New Jersey's source profile has gone from importing 20 to 25 percent of its electricity to exporting electricity to other states. The imports of electricity dropped by approximately 20 percent while New Jersey was part of RGGI initially.

New Jersey has met the two objectives of the 2008 EMP to make New Jersey self-sufficient in satisfying the State's energy needs and reducing the State's need to import electricity, while also meeting the objective of the 2011 EMP to lower the cost of energy for all New Jersey

ratepayers. New Jersey has dropped from the fourth highest-cost state for electricity to 10th or 11th. New Jersey's cost for natural gas to residential customers is among the lowest among all the states, while its cost for gasoline is approximately average. Overall New Jersey has dropped from a higher-cost state for energy to an average-cost state for energy.

The BPU intends to launch a public stakeholder process in the near future to assess the impact of leakage from the State rejoining RGGI in 2020. The BPU will seek to supplement the record set forth in the two above Orders since there have been some changes in the actions listed in the 2008 EMP, including:

1. Increased capacity for offshore wind from 1,000 megawatts (MW) to 3,500 MW;
2. Increased solar renewable energy portfolio standard (RPS) from 2,120 gigawatt-hours or 2.12 percent to 5.1 percent solar RPS;
3. An electric energy efficiency standard of at minimum two percent annual as compared to the current performance in the BPU's Clean Energy Program of between 0.5 and 0.75 percent;
4. Increased the RPS for Class I renewable energy from 20 percent to 35 percent in Energy Year (EY) 2025 and 50 percent in EY 2030;
5. Energy storage requirement of 600 MW by 2021 and 2,000 MW by 2020.

In addition, PJM has taken the first steps to establishing a task force to evaluate opportunities and develop a common set of rules on how to address carbon pricing mechanisms within the overall energy distribution system.

32. COMMENT: The Department has ample authority to prevent and mitigate leakage of CO<sub>2</sub> emissions to other jurisdictions under this rulemaking. The Global Warming Response Act sets greenhouse gas emission reduction goals for New Jersey and expresses the Legislature's intent to "establish a greenhouse gas emission from electricity generated outside the State but consumed in the State." In turn, the Global Warming Solutions Fund Act authorizes the Department to implement a greenhouse gas emissions allowance trading program.

Central to the implementation of a greenhouse gas emissions allowance trading program is the determination of which entities must hold allowances – and the GWRA is clear that New Jersey's program is to address both "Statewide greenhouse gas emissions, and greenhouse gas emissions from electricity generated outside the State but consumed in the state." The Global Warming Solutions Fund Act also gives the Department discretion to determine which entities must hold allowances but defining the term "compliance entity" as "an owner or operator of an electric generating unit," excluding on-site cogeneration facilities or combined heat and power facilities. The statute separately, however, prohibits the Department from requiring the latter facilities to acquire allowances. If the Department could only require "compliance entities" to hold allowances, the exclusion of on-site cogeneration facilities and combined heat and power facilities in the definition would be redundant. Thus, the Global Warming Solutions Fund Act empowers the Department to require not only electric generating units to hold allowances, but also entities that import electricity – which would enable fulfillment of the statute's purpose and directive to address in-State electricity emissions and emissions from out-of-State electricity consumed in-State. The Department is further directed to: "take any measures necessary to sell, exchange, retire, assign, allocate or auction

any or all allowances that are created by, budgeted to, or otherwise obtained by the State in furtherance of any greenhouse gas emissions allowance trading program implemented to reduce or prevent emissions of greenhouse gases.” When implementing such a program, the Department must: “review its position with any regional auction on an annual basis, including the amount of allowances that should be included in a regional auction.” This annual review shall be included in a regional auction. This annual review shall include consideration of the environmental and economic impacts of the auction, leakage impacts, and the impact on electric generation facilities and ratepayers in the State.

With the above provisions, the Legislature clearly expressed its concern about leakage of emissions; empowered the Department to structure allowance obligations and distribution in such a way as to promote the purpose of reducing greenhouse gases by not only reducing current levels of pollution but also preventing pollution; and required the agency to examine potential leakage impacts of an auction annually. Addressing leakage is further justified by the Global Warming Solutions Fund Act’s direction that Department “consider impacts upon the state and upon the emitters of greenhouse gas for any measure imposed to meet the 2020 limit and the 2050 limit.” Addressing market distortions created by the requirement that in-State electric generators submit allowances matching their emissions by also requiring electricity importers to submit allowances would fulfill this statutory directive. Finally, the Global Warming Response Act includes a savings clause that preserves the full scope of “existing authority of [the Department] ... to limit or regulate greenhouse gas emissions pursuant to law.” The Department has broad authority to promulgate “rules and regulations preventing, controlling, and prohibiting air pollution.” This enabling provision, combined with the savings

clause, presents yet another source of statutory authority for preventing leakage of greenhouse gas emissions to other jurisdictions, independent of the abundant authority to do so in the Global Warming Response Act and Global Warming Solutions Fund Act. Using the above outlined authority, the Department should build on innovations in leakage mitigation, such as covering electricity imports such as in the California cap-and-trade program or advancing State policy initiatives through sub-regional carbon pricing frameworks in PJM's energy market to address leakage from rejoining RGGI. (19)

RESPONSE: The Global Warming Solutions Fund Act authorizes the BPU, not the Department, to adopt a regulatory mechanism to mitigate leakage for all electric power suppliers and basic generation service providers that provide electricity to customers in the State. N.J.S.A. 45:3-87.c(2). The adopted rules apply to fossil fuel-fired EGUs located in the State. The Department recognizes the concern about leakage, and in coordination with the other RGGI participating states and interested parties, such as PJM, will look at developing a leakage mitigation strategy and will continue to evaluate the efficacy of the program in reducing the region's reliance on fossil fuel-fired energy.

**Comments Related to Economic/Ratepayer Impact:**

33. COMMENT: RGGI may not be an effective source of funds for energy efficiency, renewable electricity, and other New Jersey goals because the ratepayer costs of electric rate increase caused by the RGGI allowance price could be much higher than the RGGI allowance revenue that New Jersey receives. That is the result of fossil fuels setting the price of most electricity sales in the PJM electric market. For example, the price of nuclear electricity in New Jersey increases when the price of fossil fuel-fired electricity increases. With New Jersey's

energy mix of approximately 50 percent fossil and 50 percent nuclear and renewables, the RGGI ratepayer cost increase could be about two times the RGGI allowance revenue. As renewables increase to 50 percent by 2030, with nuclear at 35 percent, the ratio of increased ratepayer costs to RGGI revenue could be over a factor of five. While these are inexact projections since electric demand in 2030 is uncertain, they demonstrate that increasing with time, there is potential ineffectiveness and unfairness to using RGGI revenue to fund the State's energy and environmental goals. Direct subsidies are more effective and avoid higher prices for other sources of electricity and the resulting leakage. (28)

34. COMMENT: The longer-term ratepayer concern is how much participation in RGGI would increase the price and cost of electricity. The projected costs of RGGI in the rulemaking appear to be too low and do not address the possible range of RGGI allowance prices. The estimated cost of \$4.67 per ton for 18 million tons (\$84 million allowance cost in one year) does not address the increased price of nuclear and other zero-carbon power, which is the result of fossil fuel power prices setting the price for most electricity on the PJM grid. Nor does it address the application of the allowance price controls in the RGGI rule. The emission containment reserve (ECR) is designed to maintain prices over \$6.00 in 2021 and over \$11.00 in 2030, while the cost containment reserve (CCR) is designed to keep the price under about twice the level of the ECR. The economic analysis should consider at least the effect of allowance prices within the ranges of the CCR and ECR, recognizing that the price could be higher or lower in any year. (28)

35. COMMENT: Electricity in New Jersey currently costs about \$10 billion per year. Eleven dollars per ton allowance cost is the ECR in 2030 (low end of RGGI preferred cost range) and

about midrange between the ECR and CCR in 2025. Assuming 70 million megawatt hours of constant demand and a 900-pounds-per-megawatt-hour gas plant setting the price of electricity, RGGI costs would equal about \$350 million per year: a 3.5 percent increase in electric costs. By itself a 3.5 percent increase in electric costs is reasonable if that cost results in significant reduction in air contaminant emissions. However, New Jersey's commitments to energy efficiency, renewables, and nuclear make this potential additional RGGI cost superfluous. New Jersey's clean energy commitments will more than achieve RGGI goals, and the RGGI allowance revenue will be much lower than the ratepayer electric cost increases, making RGGI a costly funding source. (28)

RESPONSE TO COMMENTS 33, 34, AND 35: The adopted CO<sub>2</sub> Budget Trading Program rules use a market-based approach to control pollution and reduce anthropogenic emissions of CO<sub>2</sub> from large fossil fuel-fired electricity generating units. Consistent with results of the RGGI program over 10 years, the Department anticipates that the cost of complying with the adopted rules will likely increase the cost of wholesale power in the near term, but also that the investment of auction proceeds will offset the compliance costs. Many market factors will influence the number of allowances required to be purchased in the future and the price of the allowance is not the only variable that determines its market value. RGGI's establishment of a regional cap on the amount of CO<sub>2</sub> emitted by power plants through the issuance of a limited number of tradable CO<sub>2</sub> allowances relies on market forces to determine the most economic means of reducing emissions and drive long-term investments in clean energy.

36. COMMENT: According to the Winter 2018 Cato Institute article entitled, “A Review of the Regional Greenhouse Gas Initiative,” by David T. Stevenson, the impact of higher electricity prices in the RGGI states has contributed to a 12 percent drop in goods production and a 34 percent drop in the production of energy intensive goods. Comparatively, a sample of five non-RGGI states increased goods production by 20 percent and only lost five percent of energy-intensive manufacturing. This is clearly appreciated in RGGI states’ 18 percent drop in industrial electricity demand, while demand in non-RGGI comparison states fell only four percent. It is a reasonable expectation that in the medium term, RGGI implementation will likely lead to the export of emissions to other states with no positive global impact through the export of electricity generation and manufacturing jobs. (16)

37. COMMENT: Participation in RGGI will lead to higher electricity costs that will negatively impact New Jersey’s competitiveness, without providing any environmental benefit. It is merely a tax on New Jersey ratepayers in addition to many other energy and industry taxes New Jersey industries are required to pay. In New Jersey, 24 percent of a ratepayer’s electric bill are government-imposed taxes and fees. To put the potential rate increase into perspective, according to the most up-to-date annual averages from USEIA (2015), New Jersey is currently ranked 10th in the nations for highest retail electricity costs, and in September 2017, New Jersey ranked 12th in the nation for highest retail electricity costs. Reentering RGGI will only drive up these costs even further and put more burdens on New Jersey’s businesses and residents. (6)

38. COMMENT: New Jersey has various laws that provide significant market incentives for wind, solar, and in-State natural gas generation, all of which help to accomplish the goals of

promoting clean energy without the need to participate in RGGI. BPU once estimated that the RGGI program would eventually cost ratepayers more than \$1 billion. For large energy users, RGGI could amount to hundreds of thousands of dollars or more annually in additional surcharges. Currently, New Jersey's industrial energy consumers already pay the 8th highest rates in the nation, about 46 percent above the national average. Without a doubt, RGGI will hold back New Jersey's economic growth. For years, New Jersey's industries have been reducing their greenhouse gas emissions on a voluntary basis by investing in energy efficiency and renewable energy; and contribute a significant amount to the energy efficiency fund under the Office of Clean Energy each year. Those who have been working hard to make these significant strides should be credited for their accomplishments thus far, not penalized by being forced to pay more into another fund, especially when it remains a struggle and administrative challenge to currently recover funds from the State for projects. (13)

RESPONSE TO COMMENTS 36, 37, AND 38: While many market factors, in addition to changes in electricity prices, influence the State's overall economy and drive market decisions, the Economic Impact statement in the notice of proposal focused on the direct economic impact from compliance with the CO<sub>2</sub> Budget Trading Program rules, specifically the cost from the required purchase of CO<sub>2</sub> allowances for each ton of CO<sub>2</sub> emitted. The Department recognizes that as these costs are passed through from the electric generators to ratepayers, electricity ratepayers will bear a sizable portion of compliance costs of the program through an increase in wholesale electricity prices. Based on historical data, the Department projects that passing this cost to ratepayers would represent an increase of \$0.0012 per kilowatt hour, or an average cost of less than \$1.00 per month. RGGI Inc., has determined, on average, that the cap on CO<sub>2</sub>

emissions accounts for 0.4 to one percent of average residential electricity bills. Strategic reinvestment of CO<sub>2</sub> allowance proceeds in energy efficiency measures, renewable energy projects, and ratepayer relief measures has more than offset these increases while giving households and businesses control over their energy bills.

39. COMMENT: To make the rulemaking more transparent, the Department should conduct a full cost-benefit analysis, weighing all the proposed trading program's monetized costs with its monetized benefits, including the health and climate benefits, to provide stakeholders with information about how the Department justifies the policy. The Department specifically used the 2007-dollar value of the central estimate for 2015 emissions, which would be \$51.00 in 2018 dollars for 2020 emissions. Using this updated information shows that the economic benefits of the rulemaking would be approximately \$28 million each year, \$6 million higher than the Department's estimate. The Department should, but does not, include specific information regarding dollar-year and emissions-year in its benefits calculation, nor does it explain why those data were chosen. The Department should calculate the total avoided costs from emissions reductions using the social cost of greenhouse gases, adding up the costs for each foreseeable year that New Jersey will be a RGGI participant based on that year's estimated avoided emissions. The Department correctly relies on the social cost of greenhouse gases metric in the rulemaking's economic analysis discussion, it should go one step further by applying the social cost of greenhouse gases in a full cost-benefit analysis of the proposed trading program. If the Department conducts a cost-benefit analysis, it may find justification for increasing the ambition of the program's emissions goals. (4)

RESPONSE: The rulemaking's Economic Impact statement used 2017-dollar units to estimate the costs and benefits of New Jersey's reentry into RGGI using information available at the time, including data from RGGI analyses and reports on benefits and impacts, as well as ratepayer impact analyses from the BPU, highlighting minimal cost to the ratepayer that would be offset by proceeds reinvestment. Once New Jersey is part of RGGI, the State will actively participate in the next program review, where increasing the ambition of the program's emissions goals can be discussed with all participating states.

**RGGI's Effectiveness:**

40. COMMENT: Even assuming leakage is adequately addressed, there will come a time when RGGI no longer makes sense for New Jersey from an environmental and economic perspective. How low does the fossil fuel component of New Jersey's power consumption need to be before New Jersey exits RGGI? Based on New Jersey energy goals, the period New Jersey participates in RGGI should not go beyond 2030. (28)

RESPONSE: The end point of the RGGI program will be decided by New Jersey and the RGGI states as part of a future program review.

41. COMMENT: A cited justification for RGGI has been the reduction in electric use resulting from energy efficiency funded by RGGI allowance revenue. However, this is only relevant if rejoining RGGI would result in additional funding of energy efficiency. If RGGI revenue for energy efficiency replaces existing funding from the New Jersey's Societal Benefit Charge, rather than adds to that funding, then no credit for energy efficiency should be assigned to RGGI. Assuming an increase in energy efficiency funding from RGGI, it would need to be

enough to offset the increases in CO<sub>2</sub> emissions from leakage of electric production to coal power plants outside of New Jersey. (28)

RESPONSE: To the extent the commenter is referencing the spending of RGGI proceeds that was outlined in the rulemaking of the Global Warming Solutions Fund rules, the comment is beyond the scope of this rulemaking. Accordingly, the Department refers the commenter to the Department's response to similar comments set forth in the notice of adoption of the Global Warming Solutions Fund rules published elsewhere in this issue of the New Jersey Register.

42. COMMENT: RGGI acts as an indirect subsidy to natural gas power generation because it only regulates one greenhouse gas, CO<sub>2</sub>, at the expense of all others. Propping up the natural gas power sector is concerning, since it also produces methane, which has a greenhouse gas impact in the 20-year timeframe that is worse than coal or oil. The 20-year timeframe coincides with the timeframe the State needs to drastically be reducing the State's overall greenhouse gas footprint. (34)

RESPONSE: RGGI is designed to cap and incrementally lower CO<sub>2</sub> emissions regionally from the electric power sector. The adopted rules, consistent with the RGGI program design and the Model Rule, regulate only the CO<sub>2</sub> emitted from electric generating units greater than 25 megawatts. It does not provide a regulatory mechanism to regulate methane.

43. COMMENT: New Jersey is considering a proposed new frack-gas power plant in the Meadowlands that, if built, would be one of the largest sources of greenhouse gas pollution in

the State. The reason such a plant could be approved is market-based schemes like RGGI that exist for ozone pollution. New Jersey exceeds ozone pollution attainment levels in most counties in the State, yet the applicant for this power plan is simply proposing to buy credits that exist only on paper, in order to exceed those attainment levels and continue polluting. That exact same scenario will happen under RGGI; power companies are simply going to purchase credits and/or use offsets, rather than control pollution at the source, particularly in environmental justice communities. (34)

RESPONSE: New sources of fossil fuel generation were not considered during the RGGI modeling analysis. Any new plants constructed that are subject to the RGGI cap will increase demand for the RGGI CO<sub>2</sub> allowances. This is likely to result in upward price pressure on all CO<sub>2</sub> allowances, resulting in higher costs for fossil fuel generating sources. This is the core of RGGI's program design. RGGI is not designed to reduce carbon emissions directly, but instead to make fossil fuel generation costlier to operate, so that their owners will choose to operate them less, or replace them with newer, carbon-neutral energy alternatives.

44. COMMENT: How New Jersey rejoins RGGI is critical for its success in this State and across the region. To move forward on RGGI, New Jersey has to be a leader in the program. Specifically, during the next program review, New Jersey needs to advocate to accelerate the reductions that were negotiated in the 2017 program review (for example, a three percent per year reduction). Doing so will increasingly ratcheting up the cost of carbon emissions and increase the amount of revenue to clean, renewable energy solutions. (27)

RESPONSE: New Jersey intends to be an active participant in the RGGI program and looks forward to working with the other states during the next program review to evaluate and improve the program.

45. COMMENT: New Jersey's power sector emissions in 2015 were 42 percent lower than in 2005, and in this period coal-fired generation decreased dramatically, going from 12.7 percent in 2005 to just 2.3 percent in 2015. Supporters of RGGI argue that the program has produced substantial decreases in power plant emissions since its inception. However, several studies refute that claim:

- A peer reviewed study from the Cato Institute looks at the period from 2007 to 2015 show that RGGI states simply tracked with reductions seen across the country in reaction to natural gas prices and new regulations promulgated by the United States Environmental Protection Agency (EPA) during the past administration. In fact, CO<sub>2</sub> emissions began falling in RGGI states before the initiative went into effect.
- An analysis by the New York State Energy Research and Development Authority concluded that fuel-switching from petroleum and coal to natural gas (due to relatively low natural gas prices) was a primary driver of declining CO<sub>2</sub> emissions in RGGI states from 2005 to 2009.
- According to a May 16, 2017, report by the Congressional Research Service, "from a practical standpoint, the RGGI program's contribution to directly reducing the global accumulation of GHG emissions in the atmosphere is arguably negligible." Rather, the report finds, that emission reductions were attributable largely to switching from dirtier

coal and oil to clean natural gas generation. These changes were market driven and had no relation to the RGGI program.

Micromanaging the State's power systems will lead to unnecessary and painful results for families, workers, and business in the State. As the last decade in American power markets shows, a cleaner fuel mix was brought about by technological innovation and market forces, not government programs. (6, 13, and 16)

RESPONSE: RGGI's successes are numerous and well documented. As a market force, RGGI has provided an additional driver to large-scale fuel switching throughout the region, and contributed to improved energy efficiency and growing renewable energy output. This combination has had a significant impact on the carbon intensity of the regional energy market, reducing both greenhouse gas emissions and other air pollutants from that sector. Beyond its role as a market signal, the proceeds generated from RGGI have been reinvested to further clean air and energy goals, and drive improvements in technology. RGGI's 2016 review of proceeds investment highlighted the lifetime impact of RGGI investments:

- \$1.7 billion in lifetime energy bill savings
- 70 million megawatt hours of electricity use avoided
- 30.4 million MMBtu of fossil fuel use avoided, and
- 6.4 million short tons of CO<sub>2</sub> emissions avoided.

**Specific Program Elements:**

46. COMMENT: To maximize the benefits of New Jersey's participation in the RGGI program, New Jersey should not allocate allowances for offset projects. Under the rulemaking, New Jersey would allocate allowances, beyond the New Jersey CO<sub>2</sub> Budget Trading Program base

budget, to approved offset projects in the following categories: landfill methane capture and destruction; sequestration of carbon due to reforestation, improved forest management, or avoided conversation; and avoided methane emissions from agricultural manure management operations. Beyond the challenges of verifying the additionality and permanence of offset projects in these categories, as well as the difficulty of enforcing them, the use of offsets diminishes the climate benefits impacts of the program. As New Jersey and the RGGI states take steps to achieve meaningful reductions in greenhouse gas emissions outside of the electricity sector (for example, in the transportation and building sectors), they are increasingly looking to electrify those sectors. The climate benefits of electrification are directly connected to the carbon intensity of the electric sector. By shifting emission reductions out of the electricity sector, offset projects reduce the carbon intensity benefits of the RGGI program and, therefore, the benefits of corresponding electrification efforts. (3 and 36)

RESPONSE: From its inception, RGGI has viewed offsets as a mechanism to provide compliance flexibility and create opportunities for low-cost emissions reductions and other co-benefits across sectors. However, understanding the challenges of verifying the additionality and permanence of offset projects to ensure real, measurable, and enforceable results, RGGI cooperatively developed prescriptive regulatory requirements for its offset categories. To date only one project has been approved for offset use in the RGGI program. In addition, offset allowances are able to satisfy only a limited portion of a regulated entity's compliance obligation (3.3 percent of the compliance obligation for each control period), emphasizing the need for these facilities to invest in less carbon-intensive alternatives to meet the bulk of their compliance obligations. New Jersey is confident that the offset mechanism within RGGI is

sufficient to provide added flexibility without negatively impacting the overall goal of the program.

47. COMMENT: As currently proposed, the Department’s definition of “CO<sub>2</sub> offset allowance” in proposed N.J.A.C. 7:27C-1.2 only includes offset allowances created by New Jersey. Regardless of whether New Jersey decides in its final rule to allow allocation to offset projects, New Jersey – as a participant in the RGGI program – needs to treat as valid the offset allowances (as well as all other allowances) issued by other participating states. To do otherwise would undermine the regulations of those states that provide for offset projects by barring the use of the states’ offset allowances for compliance by New Jersey CO<sub>2</sub> Budget sources, thereby reducing the market value of those allowances. Adding the underlined text to the definition should address this issue: “CO<sub>2</sub> offset allowances” means a CO<sub>2</sub> allowance that is awarded to a project sponsor pursuant to N.J.A.C. 7:27C-10.9 or by any participating state under the CO<sub>2</sub> Budget Trading Program and is subject to the relevant compliance deduction limitations of N.J.A.C. 7:27C-6.9(a)3. (1)

RESPONSE: The definition of “CO<sub>2</sub> offset allowance” aligns with RGGI’s 2017 Model Rule to ensure that offsets are fungible throughout the RGGI region, regardless of the awarding state. This means that an offset allowance awarded in New Jersey can be used for compliance by any regulated RGGI entity in participating states.

48. COMMENT: While RGGI has only ever approved one offset project for compliance, the number of offset projects could change substantially when the allowance price increases. A

common concern regarding the use of offsets in cap-and-trade programs relates to additionality, a concept employed to verify that carbon reductions associated with offset projects are real reductions and not part of business-as-usual behavior. After thorough investigation, many offset projects have been shown *ex ante* to be non-additional, effecting aggregate emissions. If the project source would have reduced emissions anyway, then the offsets awarded to it are non-additional. Those offsets are then sold to capped sources, decreasing their compliance obligation and contributing to an increase in overall emissions relative to a scenario in which the trading program did not allow offsets to substitute for reductions from capped sources.

To better ensure the additionality of the future offsets, the Department should change the December 2005 initial eligibility date for offset projects. It is questionable whether a project started as early as 2006 could still be additional in year 2020, especially if the project has already managed to persist for 14 years without any RGGI offset payments.

The Department should also refine or reduce the default allocation period for allowances generated by offset projects. Currently, the rulemaking provides an initial 10-year allocation period, except in the case of forest offset projects. However, it is not clear that this is the true “additionality” period for all types of projects, notwithstanding their cost structure. For some projects, the only obstacle to implementation might be a one-time fixed cost. Should this fixed cost be covered, for instance, with revenue from sales of four years of offsets, a 10-year offset allocation period appears to be arbitrary, as in the remaining six years of the 10-year period the project would continue even without offset payments. In other words, the emission reductions for this project will not be additional after some initial investment period. Therefore,

reductions associated with longstanding projects should be viewed as a project's baseline, unless the project sponsor can prove that upon discontinuation of the offset payments, the project would be discontinued as well. Clearly, this will be the case for projects that have to bear annual costs of pollution abatement but do not generate additional market income through that abatement activity. For example, in the case of a landfill that is too small to install a generator to create renewable power, but only destroys methane in an enclosed flare, 10-years of offsets might be warranted. However, in case of a landfill with a profitable renewable energy generator installed, assignment of less than 10 years of offsets might meet the requirement of additionality instead. Therefore, New Jersey should consider implementing a project-specific allocation period by allowing the accredited verifiers to suggest the "additionality period" of up to 10 years during the verification process. Alternatively, New Jersey could shorten the proposed default initial allocation period. The approaches would be consistent with RGGI's 2008 Model Rule, which refers to a "*Maximum Allocation Period*" of 10 years, thereby leaving open the possibility of shorter allocation periods. (4)

RESPONSE: The Department's proposed maximum allocation periods for offsets align with the 2017 Model Rule and require any extension beyond the first period (10 years for all offsets except for reforestation, improved forest management, or avoided conversion, which is 25-years) be awarded only once a consistency determination is issued. These period lengths can be reconsidered by New Jersey and the participating states at the next program review. Since RGGI offset projects need to apply for approval six months after their inception, there is no reason to change the eligibility date as the commenter requests.

49. COMMENT: New Jersey should include a voluntary renewable energy (VRE) set-aside, as optionally allowed for in the RGGI Model Rule, to further support emissions reductions and the growth of renewable energy. A VRE set-aside will help maintain the value of private investments in renewable energy made by New Jersey residents; lead to continued voluntary demand in New Jersey for in-State and RGGI-located generation; and allow that generation to be eligible for certification with Green-e (the leading certification program for voluntary renewable energy products in North America administered by the Center for Resource Solutions). A VRE set-aside also aligns with the goals Governor Murphy set out in EO No. 28 (2018) to set New Jersey on the path to a conversion to 100 percent clean energy by 2050. (5 and 18)

RESPONSE: The Department did not propose provisions for a voluntary renewable energy set-aside because New Jersey is already a leader in the development of renewable energy as evidenced by the following examples: New Jersey is a national leader in installed solar PV capacity, with more than 2.7 gigawatts (GW) from nearly 108,000 individual solar PV installations; and New Jersey is ranked first on a total installed solar PV capacity per square mile basis, demonstrating New Jersey's commitment to solar energy despite the State's limited geographic footprint. Additionally, Governor Murphy signed EO No. 8, directing all State agencies with responsibilities under the Offshore Wind Economic Development Act (OWEDA), P.L. 2010, c. 57, to fully implement the OWEDA in order to meet a goal of obtaining 3,500 MW from offshore wind by the year 2030. Also, in accordance with the Clean Energy Act of 2018 (P.L. 2018, c. 17), the BPU, on February 19, 2019, established a Community Solar Energy Pilot Program which will enable access to solar energy to electric utility customers who have

previously been unable to participate in solar energy due to a variety of barriers. Furthermore, the Global Warming Solutions Fund Act specifically allocates 20 percent of the RGGI proceeds to the BPU to support programs that are designed to reduce electricity demand or costs to electricity customers to low- or moderate-income residential sector with a focus on urban areas; and 60 percent of the proceeds to the Economic Development Authority (EDA) to provide grants and other financial assistance to commercial, institutional, and industrial entities to support end-use energy efficiency projects and new renewable energy generation facilities.

These efforts, in addition to BPU's existing energy efficiency programs through the New Jersey Clean Energy Program and the State's Renewable Portfolio Standard, demonstrate New Jersey's commitment to achieving reductions in CO<sub>2</sub> emissions from energy efficiency and renewable energy projects. The associated incentives, energy credits, and resources related to energy efficiency and renewable energy projects are more effectively applied through the mechanisms described above.

50. COMMENT: Cogeneration is a valuable asset and should continue to be recognized in related policy matters as it is in the proposed rules. This recognition serves to mitigate any undue economic burdens impacting the viability of these important projects, as well as their co-located customers. Continued and targeted recognition of cogeneration is needed to reflect the unique and significant environmental benefits made possible through these facilities. (8)

RESPONSE: The Department acknowledges the need for the adopted rules to create incentives for co-generation relationships, where viable, to help repurpose waste heat to produce useful thermal energy, offsetting the need to draw energy from the grid.

51. COMMENT: The Department's rulemaking unintentionally limits the amount of CO<sub>2</sub> emissions that cogeneration facilities can use to adjust their compliance obligation by stating that it is either emissions associated with useful thermal energy OR those associated with electricity, but not both. This inaccurately reflects typical cogeneration practices. Therefore, at N.J.A.C. 7:27C-5.3, Retirement of CO<sub>2</sub> allowances on behalf of cogeneration units, subsection (d) should be modified as shown below, the requested deletion is in brackets and the new text is underlined:

The Department will adjust the compliance obligation by reducing the total CO<sub>2</sub> emissions by an amount equal to the CO<sub>2</sub> that is emitted as result of providing useful thermal energy [or] and electricity supplied directly to the co-located facility during the allocation year.

This change is consistent with the intent of the rule as demonstrated elsewhere in the rulemaking, including in the Summary under the Compliance Flexibility section, which states "A cogeneration unit may deduct from its emissions compliance obligation the CO<sub>2</sub> emissions resulting from the generation of useful thermal energy and electricity that is directly supplied to the co-located facility, consistent with proposed N.J.A.C. 7:27C-5.3" and under the Adjustment of Compliance Obligation for Cogeneration Units section, which states: "... the Department proposes to reward cogeneration by reducing the compliance obligation in an amount equal to all CO<sub>2</sub> emissions from the useful heat provided to and used by an onsite or contiguous facility and the CO<sub>2</sub> emissions associated with the electricity production supplied directly to a partner facility." (8)

RESPONSE: The commenter is correct. As explained in the notice of proposal Summary, it was the Department's intent to adjust the compliance obligation of an eligible cogeneration unit for CO<sub>2</sub> emissions from both useful heat and electricity production supplied directly to the partner facility, as discussed in the notice of proposal Summary, 50 N.J.R. at 2484. There is nothing in the notice of proposal Summary to suggest that the adjustment of the compliance obligation would be limited to either the supply of useful heat or the produced electricity. To address potential confusion from the use of "or" in this provision, the Department is modifying N.J.A.C. 7:27C-5.3(d) on adoption to indicate that the compliance adjustment applies to the supply of useful heat or the produced electricity, "or both."

52. COMMENT: The Department's rules should allow CO<sub>2</sub> Budget Units to account for the capture and repurposing, in the form of supporting electricity and steam generation, of gas that would otherwise be flared. This could be done by either using the EPA Landfill Gas Energy Benefits Calculator or other calculation method acceptable to the Department as a reference for greenhouse gas reductions; or by accounting for such gas use in the unit's thermal efficiency calculation, allowing recognition of the environmental benefits associated with this approach. Similar to the capital investment of cogeneration equipment that captures waste heat to produce useful thermal energy, capturing and repurposing flare gas achieves emission reductions that are permanent, measurable, and verifiable by producing useful thermal and electric energy from an otherwise wasted energy source that would be flared, increasing greenhouse gas emissions with no offsetting benefit. (8)

RESPONSE: Consistent with the RGGI program design and 2017 Model Rule, there is no mechanism to award CO<sub>2</sub> allowances for the avoided flaring of refinery or process gas. New Jersey plans to be an active participant in the RGGI program and can discuss this issue as part of the next RGGI program review once the State rejoins the program.

53. COMMENT: The Department should not exclude the CO<sub>2</sub> emissions from cogeneration from the sources' compliance obligation. There is no statutory basis for the creation of this exemption to proposed N.J.A.C. 7:27-6.9(b)1, and the Department's rationale for this exemption fails to explain how an industrial facility purchasing electricity from a cogeneration unit would pay a "disproportionate" share of the increase in electricity costs (that is, the increase due to allowance costs) as compared to the share paid by an industrial facility purchasing electricity from the grid. Also, the Department has not provided a compelling reason to extend life support to uncompetitive cogeneration units. The Chambers cogeneration plant, for example, is highly polluting, emitting around 1,000 tons per year of SO<sub>2</sub>, 650 tons per year of NO<sub>x</sub>, and 1 million tons per year of CO<sub>2</sub>. Displacing the electricity generation from this facility with generation from other CO<sub>2</sub> budget sources would likely result in a net reduction in emissions and improved air quality. (3 and 36)

RESPONSE: As discussed more fully in the notice of proposal Summary at 50 N.J.R. 2488, incentives for cogeneration relationships, where viable, help repurpose waste heat to produce useful thermal energy, offsetting the need to generate steam at the industrial site. In addition to the displaced electrical energy that would need to be made up elsewhere on the grid, thermal energy (that is, steam) would need to be produced independently in a less efficient

process. The fossil fuel emissions from having separate electrical generation and thermal steam production would result in higher emissions than the existing cogeneration plant.

54. COMMENT: Assuming the cogeneration exclusion is justified and retained in the adopted rule, the provisions for allocating allowances to, and retiring allowances from, the cogeneration unit set-aside at N.J.A.C. 7:27-5.3(e) are problematic because the requirement to allocate using actual emissions is inconsistent with the requirement in proposed N.J.A.C. 7:27-5.2(c) to allocate using projected emissions; and the provision conflicts with the timing, in proposed N.J.A.C. 7:27C-11.3(b), for auctioning the allowances in the consumer benefit account.

The Department must determine the set-aside amount before it can determine the amount of allowances in the consumer benefit account, which comprises the amount of the annual base budget minus the set-aside amount (plus any CO<sub>2</sub> cost containment reserve (CCR) allowances). However, the Department cannot determine actual emissions, and, thus, the amount of the set-aside, until after reviewing the cogeneration units' submissions due March 30 after the allocation year. Contrary to this process, proposed N.J.A.C. 7:27C-11.3(b) requires auctioning of all allowances in the consumer benefit account (which cannot include "allowances set aside to be retired pursuant to" proposed N.J.A.C. 7:27C-5.3) for an allocation year by the end of that allocation year, several months before the March 30 deadline for cogeneration units' submissions.

Further, proposed N.J.A.C. 7:27C-5.3(f) also creates a timing problem in that it requires retirement, from the cogeneration unit set-aside, of allowances equal to actual cogeneration-

related emissions “[a]t the end of each control period or initial control period.” However, this deadline precedes the March 30 deadline for cogeneration units’ submissions quantifying actual cogeneration-related emissions in the control period or the initial control period.

A suggested approach to addressing these inconsistencies is to revise proposed N.J.A.C. 7:27C-5.3 to require that each cogeneration unit submit, by a specified date before each allocation year, a projection of its cogeneration-related emissions for that year based on the unit’s average annual cogeneration-related emissions for the most recent, available three years. The Department would determine a reasonable projection for each unit and allocate to the cogeneration unit set-aside an amount of allowances covering the total of the Department’s determined projections for cogeneration units. This would be similar to the approach (in proposed N.J.A.C. 7:27C-5.5(a)1 and 2) for establishing the amount of allowances allocated to the fixed-price contract set-aside account. Cogeneration units’ submissions by March 30 after the allocation year would specify the units’ actual cogeneration-related emissions for that year. After review of these submissions, the Department would determine the total actual emissions and retire an equal amount of cogeneration unit set-aside allowances. If allowances remained in the set-aside for the allocation year after the retirements, those allowances would be transferred to the consumer benefit account for the next allocation year. If instead the set-aside did not hold enough allowances to cover actual emissions, the Department would retire the entire set-aside and require each cogeneration unit to purchase on the market, and then transfer to the set-aside for retirement, additional allowances usable for compliance in an amount sufficient to make up the unit’s share (if any) of the shortfall. (3)

RESPONSE: The Department is modifying N.J.A.C. 7:27C-5.2 and 5.3 on adoption to resolve inconsistencies in the provisions relating to the adjustment of the compliance obligations of cogeneration units. N.J.A.C. 7:27C-5.2(c) correctly reflects the program design of allocating CO<sub>2</sub> allowances to a cogeneration set-aside account based on a projection of the allowances needed for cogeneration unit compliance adjustments for that year. Accordingly, for example, in 2020, the year New Jersey enters the RGGI program and the initial control period, the cogeneration set-aside account will have CO<sub>2</sub> allowances sufficient to cover the emissions attributable that year to cogeneration and available to reduce the compliance obligations of qualifying cogeneration units. The Department is deleting proposed N.J.A.C. 7:27C-5.3(e), which incorrectly provides that the Department would calculate, rather than project, the allowances needed for that control period, the initial control period, or an interim control period. The calculation of the actual emission attributable to eligible cogeneration will be used in determining the amount of allowances that will be retired as a reflection of the adjustment to the cogeneration unit's compliance obligation at N.J.A.C. 7:27C-5.3(f), recodified on adoption as N.J.A.C. 7:27C-5.3(e). In addition, the Department is changing the impracticable submission date in N.J.A.C. 7:27C-5.3(c) from March 30 to January 30, which will still provide the cogeneration unit time to prepare its documentation and the Department time to adjust its compliance obligation before the relevant deadlines.

55. COMMENT: New Jersey should expand its coverage of electricity generating units to include units that combust fossil fuels for at least five percent of their heat input, regardless of the date on which they commenced operation, to capture New Jersey's waste incinerators in

the RGGI program. These facilities are high-emitting, pre-2005 units that combust fossil fuel-derived plastics along with other solid waste and are located in environmental justice communities, such as the incinerator electricity generator units in Camden, Essex, and Union. While the proposed definition of “fossil fuel” includes materials made from hydrocarbons in natural gas, petroleum, or coal, such as the plastics present in trash that provides much of the heat input in incinerator electricity generation units, the proposed rule’s use of a 50 percent threshold for heat input derived from fossil fuel for pre-January 1, 2005, units in definition of “fossil fuel-fired” excludes these incinerators. Instead, the definition should be revised to delete the bracketed text below:

“Fossil fuel-fired” means [1. With regard to a unit that commenced operation prior to January 1, 2005, the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil fuel combusted comprises, or is projected to comprise, more than 5 percent of the annual heat input on a Btu basis during any year; and 2. With regard to a unit that commenced or commences operation on or after January 1, 2005,] the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil fuel combusted comprises, or is projected to comprise, more than five percent of the annual heat input on a Btu basis during the year.

Consistent with this revised definition, the list of Eligible New Jersey CO<sub>2</sub> Budget Trading Facilities attached to the proposed rule should be revised to add the incinerator units in Camden, Essex, and Union. (3 and 36)

RESPONSE: The adopted definition of “fossil fuel” at N.J.A.C. 7:27C-1.2 means those listed substances or products specifically derived from those substances for use as a fuel. Plastics,

while produced from fossil fuels, are not derived specifically as a fuel. Instead, plastics in the waste stream fall under the Department's definition of "municipal solid waste" at N.J.A.C. 7:26-1.4 as a "residential, commercial, and institutional solid waste generated within a community." "Solid waste" is further defined at N.J.A.C. 7:26-1.6. In addition, in accordance with the New Jersey Statewide Mandatory Source Separation and Recycling Act, N.J.S.A. 13:1E-99.11 et seq., these products should not be a constant in the State's municipal waste stream, as the goal is to source separate them out for reuse. Finally, while incinerators can be used as an energy source, they are primarily a waste-disposal mechanism, and as such cannot be treated the same as the energy generation units that would be regulated under the adopted CO<sub>2</sub> Budget Trading Program rules. For these reasons, the Department has determined not to modify the definition of "fossil fuel" on adoption.

56. COMMENT: The Department should not exclude the CO<sub>2</sub> emissions from eligible biomass co-fired with fossil fuel from the sources' compliance obligation at proposed N.J.A.C. 7:27C-6.9(b)1. Biomass is included under the proposed definition of "fossil fuel," which includes "natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material," and as such should be included in a source's compliance obligation. The implicit premise for this exemption – that these units are "carbon neutral" because the emitted CO<sub>2</sub> will eventually be recaptured by regrowth of the feedstock, mitigating the climate damages from current CO<sub>2</sub> emissions – is flawed because:

- CO<sub>2</sub> emissions per megawatt hour of electricity generated from biomass are substantially higher than from coal and natural gas because biomass burns less efficiently;
- Nothing in the proposed rules requires combusted biomass to come from “forest residues” or obligates the Department to monitor and enforce such a requirement;
- Gradual deterioration of unburned wood residues and resulting CO<sub>2</sub> emissions occur over many years, while burning wood residue causes immediate CO<sub>2</sub> emissions, and the net CO<sub>2</sub> emissions impacts would remain large over 50 years or more;
- Even if only “forest residues” were burned, there would be a negative climate impact over the next 50 or more years, particularly since exempting the burning of wood residues and pellets from the allowance-holding requirement would increase the economic incentive to harvest whole trees, including mature ones that sequester the most carbon;
- Adverse climate and health impacts from current emissions from burning whole trees would not be offset by re-sequestration of CO<sub>2</sub> for decades, even assuming the trees were replaced by comparable forests;
- There is no support for the implicit assumption that forest would be regrown in a sustainable way or in sufficient quantities to recapture the CO<sub>2</sub> emitted during the life of this program;
- New Jersey must reduce CO<sub>2</sub> emission now; not merely achieve an accounting balance decades down the road; and

- Exempting biomass from carbon prices would undercut beneficial investments in zero-carbon alternatives, such as solar wind and energy efficiency, which mitigate climate harms in both the near and long-term.

The Department is encouraged to reference a law review article written on this topic by Professor Ana Baptista, Ph.D., of the New School and the New Jersey Environmental Justice Alliance. (3, 33, and 36)

RESPONSE: New Jersey does not currently have any facilities that co-fire eligible biomass to produce energy. However, to protect against the concerns raised in the comment, the adopted rule defines “eligible biomass” at N.J.A.C. 7:27C-1.2 as “sustainably harvested woody and herbaceous fuel source, that are available on a renewable or recurring basis (excluding old-growth timber) ...” and lists a number of specific examples that could be considered. The adopted definition further emphasizes that the Department would determine whether a fuel source was sustainably harvested based on case-by-case evaluations of the harvesting practices, including pest management, fertilizer and nutrient use, crop rotation practices, water use and pollution management, soil management, and forest management. Finally, adopted N.J.A.C. 7:27C-8.7 outlines comprehensive monitoring and reporting requirements for any unit that co-fires eligible biomass as a compliance mechanism to verify compliance with their eligibility. The Department does not expect many, if any, units to co-fire biomass, due to the State’s limited feedstock, but the adopted rule contains the necessary safeguards to properly evaluate such a situation, should it arise.

57. COMMENT: The Cost Containment Reserve (CCR) could undermine New Jersey and other states' climate commitments under RGGI. New Jersey should closely monitor the CCR and work with the other states to continue to improve it in future program reviews. In particular, the Department should work with the other RGGI states to modify the CCR so that its allowances are drawn from underneath the RGGI cap, rather than created outside of and on top of the cap. This can be achieved by borrowing CCR allowances from future years—that is, reducing future supply to account for allowances released under the CCR. This approach, which would better ensure the CCR provides price containment without undermining RGGI's overall emissions goals, is currently used in California's greenhouse gas emissions trading program, where prices have been stable. (35)

RESPONSE: The Cost Containment Reserve was triggered twice in the RGGI program – in 2014 and 2015. Accordingly, the RGGI states adjusted the CCR triggers as part of its program review to ensure triggering would happen only in extreme cases. The CCR is a function of the RGGI program and all RGGI states must adhere to the mechanisms prescribed in the latest RGGI model rule. Adopted N.J.A.C. 7:27C-5.2 reflects the CCR provisions under the existing Model Ruel, as agreed to by the RGGI participating states. Any additional changes made to the CCR would be of a future program review. New Jersey plans on being an active participant in the next program review.

58. COMMENT: As with the CCR, the Department should monitor the ECR and explore ways to improve this mechanism, such as increasing the number of allowances withheld under the ECR to capture additional benefits. Since RGGI permit prices are already close to the reserve

price, New Jersey's entry into RGGI with a loose state cap would increase the probability of the ECR becoming operative. In accordance with ECR regulations, states can withhold up to 10 percent of the allowances in their base annual budgets to ensure additional emission reductions if prices fall below the specified trigger prices. However, given the substantial uncertainty associated with New Jersey's counterfactual emissions, New Jersey should consider increasing the size of its ECR more than 10 percent of allowances to ECR, especially if it decides to pursue the 18 million cap. This way, should New Jersey's emission be lower than anticipated, suppressing allowance prices, at least some portion of the State's allowance overallocation would be automatically removed. (4, 18, and 35)

RESPONSE: The 18-million-ton cap in 2020 is consistent with the Department's IPM modeling, as well as the Department's internal calculations based on emission statement data, for emissions in 2020. The Emissions Containment Reserve is a new design feature of the RGGI program that evolved out of the states' 2017 program review. Based on the experience of the participating RGGI states, laid out in the Model Rule, a 10 percent ECR is sufficient. New Jersey intends to be an active participant in the RGGI program and looks forward to working with the other states during the next program review to evaluate the effectiveness of this new feature and work to improve the program overall.

59. COMMENT: Proposed N.J.A.C. 7:27C-1.4(f)2 misstates the compliance requirement because, by incorrectly referencing N.J.A.C. 7:27C-1.4(g) instead of paragraph (f)3, it does not reduce the allowance holding requirement for a control period by the allowance holding requirement for the two interim control periods that are part of that control period. (3)

RESPONSE: The Department is modifying N.J.A.C. 7:26C-1.4(f)2 to correct the cross-reference. The proposed rule refers to N.J.A.C. 7:26C-1.4(g) as the location of the requirements for holding CO<sub>2</sub> allowances during interim control periods. Those requirements are discussed at N.J.A.C. 7:26C-1.4(f)3.

60. COMMENT: The Department needs to incorporate the purpose of the “consumer benefit account” defined at N.J.A.C. 7:27C-1.2 into the definition. Further, while proposed N.J.A.C. 7:27C-11.1(e) states that the Department will credit the proceeds from sales “in a multi-state or New Jersey CO<sub>2</sub> allowance auction” to the Global Warming Solutions Fund, it does not address how proceeds from direct sale of allowances from the fixed-price contract set-aside account (under proposed N.J.A.C. 7:27C-5.5) will be used. Because a critical means of achieving the New Jersey program’s goal of reducing CO<sub>2</sub> emissions is proper use of auction and direct sale proceeds, the proposed rule should state the requirements for use of all allowance proceeds. The addition of the underlined text below should address these concerns.

“Consumer benefit account” means the general account established by the Department from which CO<sub>2</sub> allowances will be sold or auctioned. The proceeds from such sales and auctions will be deposited in the Global Warming Solutions Fund under N.J.S.A. 26:2C-50 and used in accordance with N.J.S.A. 26:2C-51. (3)

RESPONSE: The consumer benefits account is not a funding account; but instead is an accounting mechanism to track the CO<sub>2</sub> allowances that are not allocated to either the fixed-price contract set-aside or the cogeneration set-aside accounts. The allowances in the consumer benefits account are those auctioned as part of RGGI. N.J.S.A. 26:2C-50 directs the

State Treasurer to credit the proceeds received by the State “as a result of any sale, exchange or other conveyance of allowances” to a special fund, known as the Global Warming Solutions Fund.

61. COMMENT: The Department needs to clarify the relationships between the consumer benefit, the fixed-price contract set-aside, and the cogeneration unit set-aside accounts.

Proposed N.J.A.C. 7:27C-5.2(a) states that the amount of each annual base budget minus the amount allocated to the fixed-price contract set-aside account must be allocated to the consumer benefit account, thereby treating that set-aside as excluded from, and not subject to the requirements for use of, the consumer benefit account. However, proposed N.J.A.C. 7:27C-1.2 defines “consumer benefit account” to include all allowances to be “sold or auctioned” and, thus, treats the fixed-price contract set-aside account as a part of the consumer benefit account. Also see proposed N.J.A.C. 7:27C-5.4(b), which treats direct sale allowances as part of the consumer benefit account, stating that the rest of the allowances in the account are to be auctioned. Proposed N.J.A.C. 7:27C-5.2(a) and (b) should be revised to reflect the inclusion of the fixed-price contract set-aside in the consumer benefit account.

Further, proposed N.J.A.C. 7:27C-5.2(a) does not exclude from the consumer benefit account, the portion of the annual base budget allocated to the cogeneration unit set-aside account. However, proposed N.J.A.C. 7:27C-5.3 states that allowances in the cogeneration unit set-aside must be retired (not auctioned or sold) to account for the portion of a cogeneration unit’s emissions resulting from production of electricity and useful thermal energy supplied directly to co-located facilities. These cogeneration-related CO<sub>2</sub> emissions (referred to as the

“compliance obligation adjustment”) are exempt from the units’ requirement to hold allowances for CO<sub>2</sub> emissions. Except for allowances in the cogeneration unit set-aside that remain after such retirements, allowances in that set-aside are excluded from the consumer benefit account. The bracketed deletions and underlined additions to the text proposed N.J.A.C. 7:27C-5.2(a) should address these concerns.

(a) The Department will allocate CO<sub>2</sub> allowances representing 100 percent of the tons for each allocation year from the New Jersey CO<sub>2</sub> Budget Trading Program base budget set forth in N.J.A.C. 7:27C-5.1 to a consumer benefit account, less those allowances set aside each allocation year pursuant to [(b)] (c) below.

(b) The Department will allocate CO<sub>2</sub> allowances in a consumer benefit account to a fixed-price contract set-aside account for each allocation year from the New Jersey CO<sub>2</sub> Budget Trading Program base budget set forth in N.J.A.C. 7:27C-5.1 in an amount sufficient to provide allowances at a fixed price of \$2.00 per ton to all eligible facilities, as provided at N.J.A.C. 7:27C-5.5.

(c) The Department will allocate CO<sub>2</sub> allowances to a cogeneration set-aside account for each allocation year from the New Jersey CO<sub>2</sub> Budget Trading Program base budget set forth in N.J.A.C. 7:27C-5.1 in an amount sufficient to provide allowances equivalent to the projected compliance obligation adjustment for a cogeneration unit, as provided at N.J.A.C. 7:27C-5.3. (3)

RESPONSE: On adoption, the Department is modifying N.J.A.C. 7:27C-5.2, CO<sub>2</sub> allowance allocations, and N.J.A.C. 7:27C-5.4, Distribution of CO<sub>2</sub> allowances in the consumer benefit account, to address the concerns the commenter raises. Some of the confusion regarding the

relationship between the consumer benefit account and the two set-aside accounts (for fixed-price contract direct sales and cogeneration unit compliance adjustments) may stem from the reference in the definition of “consumer benefit account” at N.J.A.C. 7:27C-1.2 to allowances “sold or auctioned.” This definition is based on the definition of this term in the RGGI Model Rule and is not intended to cover those allowances not included in the consumer benefit account. The relationship of these accounts is discussed in detail in the notice of proposal Summary, 50 N.J.R. at 2486, including the fact that the allowances that the Department allocates from the New Jersey CO<sub>2</sub> Budget Trading Program base budget to the consumer benefit account (and, thus, made available for auction) specifically do not include those the Department has set aside and allocated to the two set-aside accounts. N.J.A.C. 7:27C-5.2(a), as modified on adoption, adds an inadvertently omitted reference to subsection (c), as well as to subsection (b), consistent with the discussion in the notice of proposal Summary and the intent of the Department. Both subsections (b) and (c) describe set-aside accounts to which allowances are allocated instead of to the consumer benefit account. Accordingly, these allowances are not part of the Department’s allocation of allowances to the consumer benefit account. At adopted N.J.A.C. 7:27C-5.4, Distribution of CO<sub>2</sub> allowances in the consumer benefit account, the Department is adding to subsection (b) on adoption a reference to a second set-aside account. Just as CO<sub>2</sub> allowances in the fixed-price contract set-aside account are not available for sale at auction because they are “set aside” for direct sale to a CO<sub>2</sub> authorized account representative for an eligible certified dispatch agreement facility under N.J.A.C. 7:27C-5.5, allowances that are set aside to be available to adjust the compliance obligation of a

cogeneration unit are also not available for sale at auction, in accordance with N.J.A.C. 7:27C-5.3.

62. COMMENT: The provisions for the timing for auctioning allowances in the consumer benefit account should be clarified. Proposed N.J.A.C. 7:27C-11.3(b) requires auctioning of all allowances in the consumer benefit account for an allocation year by the end of that allocation year. However, while the provision seems intended to apply to each control period, initial control period, and interim control period, the provision does not consistently reference all three periods. Proposed N.J.A.C. 7:27C-11.3(c) similarly seems intended to apply to all three periods but does not reference them. The rule should indicate that it refers to all three periods.

(3)

RESPONSE: The Department is modifying N.J.A.C. 7:27C-11.3(b) and (c) to refer to all three time periods. As the commenter notes, the requirements apply to not only the control period, but also the initial control period and interim control period. The Department is making similar modifications to other references to the control period at N.J.A.C. 7:27C-1.4(d), 4.1(b), 6.9(a) and (f), and 7.2(b).

63. COMMENT: The Department should work with the other RGGI states to raise the “minimum reserve price,” which establishes a floor price in RGGI’s quarterly allowance auctions, to better reflects the costs of carbon pollution. The current minimum price, which is just over \$2.00 per ton, is too low. While the ECR can help bolster allowance value, raising

RGGI's minimum price would provide greater certainty for the clean energy investments needed to reduce power plant pollution in New Jersey and the region. (35)

RESPONSE: New Jersey intends to be an active participant in the RGGI program and looks forward to working with the other states during the next program review to evaluate and improve the program.

64. COMMENT: The Department's proposed rules fully implement the 2021 through 2025 adjustment for banked allowances, consistent with the commitments by the other RGGI states, in proportion to New Jersey's allowance allocation. As emissions have continued to fall in the region, a new surplus of allowances has accumulated, and it is important that all states participating in RGGI address this issue. These adjustments, which will be carried out over a five-year period, are sufficiently gradual to avoid shocking the market. In future program reviews, New Jersey should support further adjustments for excess banked allowances as needed to ensure the continued strength of the RGGI program. (35)

RESPONSE: Re-engaging in RGGI requires New Jersey to do its part to address the existing banked allowances in the system as determined in the 2017 program review. As an active new member of the RGGI program, New Jersey looks forward to working with the other states during the next program review to evaluate how well these adjustments worked to address the current bank and review the cause and any other available remedies to eliminate the bank moving forward.

65. COMMENT: The Department should exempt Salem Unit No. 3 from the CO<sub>2</sub> Trading Rule, as well as the recordkeeping and reporting requirements under proposed N.J.A.C. 7:27C-1.3(e) and (f). Salem Unit No. 3 was converted from an electric generating unit to an emergency generator on May 1, 2015, and no longer supplies power to the PJM grid. The proposed rulemaking provides an exemption for applicable units for any fossil fuel-fired EGU that is greater than 25 megawatts that has an operating permit condition that restricts the supply of the unit's annual electric output to the electric grid to no more than 10 percent of the unit's annual gross electricity generation. PSEG Nuclear's Title V permit for Salem Generating Station includes the language in N.J.A.C. 7:27-19.1 and 19.2(d), which restricts emergency generators from selling electricity to the grid. The permit also limits the unit from operating except in an emergency, and from operating when the air quality is "unhealthy for sensitive groups," or less healthy. (31)

RESPONSE: The Department acknowledges that the Salem Unit No. 3 is permitted for emergency use only and was inadvertently included as a RGGI regulated entity in the State's modeling and calculations. The Department agrees that in reference to their permit conditions, Salem Unit No. 3 is not subject to RGGI. Based on EPA's Air Markets Program Data (AMPD), Salem Unit No. 3 has a capacity of 50 megawatts, and generated 62 megawatt hours in 2017, resulting in 161 short tons of CO<sub>2</sub>. Given that the overall 2017 CO<sub>2</sub> emissions for New Jersey were more than approximately 18 million short tons, this results in a calculation error of approximately 0.0008 percent. This is insignificant in terms of the State's proposed cap. The State will update its online list of New Jersey's CO<sub>2</sub> budget units to remove Salem Unit No. 3.

66. COMMENT: A 10-year recordkeeping requirement is overly burdensome, since New Jersey's Title V Operating Permit Program requires facilities to maintain records for only five years. The Department should adopt a recordkeeping requirement for the CO<sub>2</sub> Budget Trading Program that is more in line with the Title V Operating Permit Program. (31)

RESPONSE: A 10-year record retention requirement is consistent with the RGGI Model Rule and data retention requirements of the other RGGI states. The adopted recordkeeping requirement is necessary in order to maintain consistent data retention across the RGGI states. Further, with the ability to store data electronically, the 10-year storage requirement is neither unwarranted or burdensome.

67. COMMENT: The Department should develop an output monitoring plan template that owners and operators of CO<sub>2</sub> budget units can use for electronic submission to the Department. (31)

RESPONSE: The Department will develop an output monitoring plan template for use by the owners and operators of CO<sub>2</sub> budget units and will make the template available prior to the start of the State's initial control period on January 1, 2020. The Department will consider a platform that would allow for electronic submittal in the future, taking into account available Department resources and the potential for efficiency improvements.

#### **New Jersey's Portion of the Regional Cap**

68. COMMENT: The Department must establish a carbon pollution cap that is adequately ambitious, at a level that will materially decrease emissions and provide greater near-term emission reductions in the early years of the program, enabling more cost-effective reduction

pathway and opening the door to achieving higher levels of mitigation over the long-term. Doing this requires the Department to strike equilibrium between what is problematic and meaningful to help the State meet its overall climate goals. The Department should lean toward the lower end of the spectrum to capture the upside potential in terms of the revenue generation and to lower carbon emissions. An initial 2020 cap level that exceeds the actual level of emissions (and, therefore, is set too high) would reduce New Jersey's benefit from RGGI's revenue and could undermine the emissions reduction goals of the entire interstate program. It would also force environmental justice communities to accept continued emissions of harmful air pollutants in their neighborhoods while allowing polluters to purchase cheap credits while the supply is high and then use these credits to offset future emissions of greenhouse gases, rather than actually reduce pollution levels, and would allow revenue generated from the sale of pollution fund the construction of new gas power plants. New Jersey must ensure that the emission cap level is well aligned with the best available analysis. (10, 18, 19, 23, 26, 29, and 34)

69. COMMENT: It is worth emphasizing that the base budget can also be lower than expected emissions under business as usual, since covered facilities will have time to plan ahead for compliance with the regulations once finalized, and in fact have already had time to anticipate the program and general direction of the regulatory framework. Moreover, cost-effective abatement opportunities in the power sector are readily available. (19)

70. COMMENT: Beyond being an overestimation of 2020 New Jersey power plant emissions, the Department's proposed cap would also result in New Jersey contributing an outsize share of the regional cap at nearly 19 percent for the total RGGI states (New Jersey was only 12 percent

for the total RGGI states from 2009 through 2011). This is particularly concerning because during its hiatus from RGGI, New Jersey developed new fossil fuel generation at a rate that far outstripped new fossil fuel generation in the other RGGI states. (3)

71. COMMENT: New Jersey must ensure that its participation in RGGI does not result in allowance prices significantly below projected allowance prices if New Jersey were not participating in RGGI. Recognizing the historically low allowance prices in the RGGI region, the Department's rulemaking correctly includes the Emission Containment Reserve in the New Jersey program as a mechanism for states to achieve additional emissions reductions if allowance prices are lower than expected. With respect to concerns that allowance prices could significantly increase, the opportunity to trade with other RGGI member states and inclusion of the cost containment reserve will help to ensure that a base budget no higher than New Jersey's proposed level is reasonable and can ensure sufficient market liquidity. (15)

72. COMMENT: In the spring 2018, Natural Resource Defense Council's (NRDC's) modeling and analysis proposed a 2020 base budget for New Jersey of 12.6 million tons, that is, 5.4 million tons, or 30 percent, lower than the Department's proposed level. NRDC's 2018 modeling not only confirmed that a cap of 12.6 million tons of carbon with cap reductions of three percent per year through 2030 is achievable, but also that it would produce only a modest RGGI allowance price in the range of \$3.00 per ton of carbon across the 2020 to 2030 decade. These allowance prices are lower than current RGGI auction prices. It would also help reduce New Jersey's net imports over the course of the next decade. The Department should adopt a cap within the \$12 to \$13 million range to be more protective and ambitious. (10, 11, 14, 22, 24, and 27)

73. COMMENT: Adoption of a 12- to 13-million-ton cap for New Jersey would still be higher than the ones proposed in EPA's original and revised Clean Power Plans. (36)

74. COMMENT: A 12- to 13-million-ton cap in 2020 is consistent with New Jersey's current power sector emissions path, as well as anticipated emissions reductions under Assembly Bill 3723, which establishes ambitious renewable energy and energy efficiency targets for the State. (11)

75. COMMENT: The primary difference between NRDC's 2018 modeling and the Department's modeling is assumptions concerning natural gas prices and load forecasts, both of which are challenging to predict with a high degree of accuracy. In addition, neither set of modeling conducted sensitivities around these critical inputs. Rather than rely exclusively on either forecast, the Department should take both sets of modeling into account and adopt a more protective approach by selecting a starting cap that is lower than 18 million tons, which likely represents an overestimation of actual 2020 New Jersey power plant emissions. (3)

76. COMMENT: NRDC more recently conducted an update to its 2018 modeling analysis using additional information released by Department, and reflecting new forecasts from Energy Information Administration (EIA), as well as capacity changes and state policies as of the first quarter of 2019. The new preliminary runs project higher emissions than NRDC's 2018 modeling runs given these changes to fuel costs and total demand, with emissions more in-line with the Department's proposed 2020 base budget. An 18-million-ton base budget for 2020 is acceptable. (15 and 35)

RESPONSE TO COMMENTS 68 THROUGH 76: On January 8, 2018, well in advance of the close of the public comment period on the proposed rules, the Department posted on its RGGI website

at <https://www.state.nj.us/dep/ages/rggi.html#/> the State's IPM modeling assumptions and results that formed the basis for the 18-million-ton cap in 2020. This modeling was performed by ICF, the same contractor used by the RGGI states to perform all their modeling efforts, including the modeling associated with their most recent 2017 program review. New Jersey modeling followed the approach used by the current RGGI states during the 2017 program review, using a mix of EIA's Annual Energy Outlook (AEO) 2018 reference and high resource fuel curves for gas prices and PJM's forecasts for demand. As shown in the State's modeling reference case, New Jersey's emissions in 2020 is 18 million tons; this number was used as the basis for New Jersey's cap. The modeling policy case then applied that cap (as well as the estimated cap for Virginia, based on the assumption that both states would enter RGGI at the same time). These results show a decrease from the reference case in New Jersey's emissions, as well as the RGGI states combined, and show a wider margin for the emissions decrease in the policy scenario (meaning the combination of all 11 states in RGGI provides for additional emission reductions). This gave the State confidence that entering the program at 18 million tons would provide for additional emissions reduction benefits without negatively impacting the market system. Therefore, the State is adopting the proposed cap of 18 million tons for 2020.

77. COMMENT: New Jersey's 2020 carbon pollution cap should be based on emissions from just the current fossil fuel generating fleet in the State and should not be inflated to account for potential increases in pollution from new facilities. The purpose of the cap is to reduce pollution going forward. In addition, trends due to the State's clean energy policies and other

market changes throughout PJM that are independent of RGGI should be fully reflected in New Jersey's baseline budget to ensure that the State's reentry into RGGI leads to further pollution reductions, both within New Jersey and across the entire RGGI region. (14 and 22)

78. COMMENT: The Department's proposed cap does not include the several proposed gas plants in the Pinelands, the Highlands, and the Meadowlands that will result in an approximately 76 percent increase in greenhouse gas emissions, in direct conflict of the 2007 Global Warming Response Act, the 2018 Clean Energy Act, the commitments the Murphy Administration has made under the Paris Climate Accords and the U.S. Climate Alliance and the Governor's own Executive Order Number 28 (2018). In short, you cannot get to 100 percent clean energy and to 50 percent renewable energy under the mandates of current law in New Jersey by increasing greenhouse gas emissions. (29)

RESPONSE TO COMMENTS 77 AND 78: New Jersey's modeling incorporates only the State's existing fossil fuel generating fleet as of the end of 2018. No permitted units awaiting construction or units under permit review were considered as "firm build" in the State's modeling exercise. Nor did the Department consider plants undergoing permit review in the RGGI modeling effort. The modeling assumes all the mandates of the State's Clean Energy Act, P.L. 2018, c. 17, including improvements to the State's Renewable Portfolio Standard (RPS), solar and energy efficiency programs, and commitment to 3,500 megawatts of offshore wind by 2030. Finally, the modeling followed the approach utilized by the current RGGI states during their most recent program review, using a mix of AEO 2018 reference and high resource fuel curves for gas prices and PJM's forecasts for demand to determine market changes independent of the State's participation in RGGI.

79. COMMENT: The Department should properly identify New Jersey's counterfactual level of emissions for 2020 (that is, the State's expected emissions absent participation in RGGI) and set the initial level of the State's conditional allowances strictly lower than that counterfactual level. The Department's modeling found the proposed cap of 18 million allowances for year 2020 to almost coincide with the 18.25 million tons of emissions expected to occur in that time under the business-as-usual scenario. However, the counterfactual emissions presented in the Department's modeling appear to be too high. First, the 2018 counterfactual emissions used in the modeling are 1.5 million tons higher than the actual 2018 New Jersey emissions reported by the EPA. Given that overestimate for the initial year of modeling, it is highly probable that emissions in all the subsequent years are also substantially overstated. Second, the Department's modeling reports no response of resource entry and exit to RGGI participation. This is surprising as, even with allowance prices at the levels estimated in the modeling, there should be some merit-order effects between coal and natural gas power plants, accelerating the retirement of coal. The timing of solar capacity additions is also identical under the Department's modeling RGGI and reference scenarios, despite the increase in revenue for solar generators owing to increased market prices. This raises the suspicion that the modeling used is not flexible enough to represent investment decisions and, thus, misrepresents the future fleet, biasing it towards the dirty *status quo* generation mix. Intuitively, New Jersey's emissions are bound to fall substantially, even in the absence of a cap imposed by RGGI. The electricity demand in New Jersey, in other PJM states, as well as in New York, is predicted to decrease over time. Legislation signed in 2018 imposes energy-efficiency and energy-storage

requirements and calls for a renewable portfolio standard of 50 percent by 2030, with the ultimate goal of powering the State entirely with renewable resources by 2050. Even partial achievement of these goals would almost certainly displace some of New Jersey's natural gas resources—which make up almost 50 percent of New Jersey's current energy supply—and, in turn, decrease the State's emissions. That effect, coupled with current emissions of 19 million tons, suggests that it is unlikely that the State will produce 18 million tons of CO<sub>2</sub> emissions in 2020. (4)

RESPONSE: The Department used IPM modeling, since that modeling is a prerequisite for New Jersey's re-entry into RGGI; the existing RGGI states use the IPM model, so the model provides a common base from which to make direct comparisons. Although there are other models available, had the Department used an emissions calculation system that differs from the one used by the existing RGGI states, the model would not have allowed for a fair assessment (as compared with the other RGGI states) when determining the benefits and impacts of New Jersey's addition to the RGGI market.

80. COMMENT: One indication from the Department's modeling that the 2020 cap is too high is that it shows the emissions containment reserve being triggered in every future year of the program, which is indicative of a cap that is too high, resulting in low allowance prices. (27)

RESPONSE: The State's modeling indicates that the RGGI emissions containment reserve would be triggered whether or not New Jersey participates in RGGI. Evaluation of the program design, including the emissions containment reserve, is done collaboratively among the RGGI states,

and New Jersey will actively participate in the next program evaluation to review these types of issues.

81. COMMENT: The Department should make its full modeling publicly available, including the assumptions used in the modeling, in advance of the February 15th comment deadline, as other RGGI states have done in the past. (27)

RESPONSE: On January 8, 2018, well in advance of the close of the public comment period on the proposed rules, the Department posted on its RGGI website at <https://www.state.nj.us/dep/ages/rggi.html#/> the State's IPM modeling assumptions and results that formed the basis for the 18-million-ton cap in 2020.

82. COMMENT: Even if New Jersey's initial allowance levels are below business-as-usual emissions, they might not remain so in future years. Given the renewable and efficiency goals that the State is pursuing, the State's generation fleet can be expected to become less carbon-intensive every year, even in the absence of RGGI trading. In some years, that counterfactual fleet cleaning would take very large leaps. Consequently, New Jersey's RGGI cap could end up higher than business-as-usual emissions. Indeed, even the Department's modeling results suggest that the 2030 cap (set at 12.6 million tons) exceeds business-as-usual emissions (calculated in the study to be 11.98 million tons), implying that New Jersey's participation in RGGI would actually increase global 2030 emissions. And because the Department's modeling likely overestimates counterfactual emission levels, it likely underestimates the extent to which New Jersey's participation in RGGI could increase global emissions in 2030. New Jersey's choice

of the too-high cap could undermine climate progress made across all RGGI states. To ensure that New Jersey's participation in RGGI will reduce CO<sub>2</sub> emissions in every future period, the Department should set the emission caps in years 2021 through 2030 below the counterfactual emission levels for those years. (4)

RESPONSE: As noted in the Response to Comment 78, use of IPM was a prerequisite for New Jersey's re-entry into RGGI to provide consistency with the other RGGI states and a common base from which to make direct comparisons. The 18-million-ton cap in 2020 is consistent with the Department's modeling, as well as off-modeling calculations, for emissions in 2020. The cap levels beyond 2020 are calculated, rather than modeled, based upon the program design to achieve a 30 percent emission reduction by 2030.

83. COMMENT: If the Department adopts an 18-million-ton cap, a 30 percent reduction only takes the State to 12 million tons, which is where the State's emissions were in 2010. This means that in 2030 almost 40 percent of New Jersey's electricity will still be coming from fossil fuels. Based on the nuclear subsidy bill, 40 percent of New Jersey's electricity must be nuclear. If RGGI still has the State at close to 40 percent fossil fuels, mathematically it is impossible for the State to reach its 50 percent renewable goals. (36)

RESPONSE: The law that requires establishment of a ZEC program for nuclear power plants (N.J.S.A. 48:3-87.3 et seq., P.L. 2018, c. 16, approved May 23, 2018) does not require that 40 percent of New Jersey's electricity come from nuclear. It requires the BPU to consider nuclear power plants for ZEC eligibility, but not beyond the point at which the combined number of megawatt-hours of electricity produced by all the selected plants equals 40 percent of the total

number of megawatt-hours of electricity distributed by electric public utilities in the State. This language represents a ceiling of production at which ZEC issuance would stop; not a floor of mandated nuclear generation. The New Jersey CO<sub>2</sub> allowance allocation, which the commenter refers to as the cap, does not predetermine the mass emissions from the CO<sub>2</sub> budget sources. The implementation of New Jersey's renewable energy and energy efficiency mandates could result in emissions from CO<sub>2</sub> budget sources that are less than the State-specific allowance allocation.

84. COMMENT: The vast majority of New Jersey's natural gas is coming from fracking. From a life cycle analysis perspective, fracked gas is as bad as coal. (29)

RESPONSE: The source of a fossil fuel, including a life cycle analysis, is outside the scope of this rulemaking.

85. COMMENT: When New Jersey joins RGGI, the total emissions regulated by RGGI will rise by almost 30 percent, compared to a baseline scenario in which no new states join the market. Thus, the choice of New Jersey's emission cap will substantially affect the total number of allowances available at each auction, and will, thus, have a large effect on the stringency of the RGGI cap. Changing the stringency of the RGGI cap will, in turn, affect future allowance prices, the compliance costs for budget units in the RGGI states, and the auction revenue gathered by RGGI states. If New Jersey chooses to issue allowances for more emissions than its generators would emit under a business-as-usual scenario (counterfactual emission level), this will loosen the emission cap for the whole RGGI area. Unless allowance prices are at the price

floor, the price will go down causing aggregate emissions to increase relative to a scenario in which New Jersey does not join RGGI. A decline in the permit price will also decrease the revenue that other states receive from RGGI auctions. The magnitude of those adjustments will depend on the magnitude of the change in RGGI's cap. Consequently, in order to ensure that total emissions decrease relative to a business-as-usual scenario, the number of permits issued in New Jersey should be set below New Jersey's counterfactual emission level. (4)

RESPONSE: The modeling analysis demonstrates that the initial cap of 18 million tons increases allowance prices and has an overall positive impact on the RGGI market.

86. COMMENT: The Department should adopt a budget that declines over time at a rate consistent with substantial reductions from the power sector, at a minimum setting a budget that declines annually at a rate that is in alignment with the existing RGGI program. The Department should also consider a steeper rate of decline, considering the importance of putting the State and the region on a trajectory to zero power-sector CO<sub>2</sub> emissions as quickly as possible and considering the benefits of prioritizing near-term reductions. (11, 19, and 35)

87. COMMENT: Recognizing that the ability to accurately predict future emissions based on current data has limitations, the Department should actively lead the other RGGI states to monitor how actual emissions trajectories develop between now and 2020, and in future years, and make adjustments to RGGI's cap, and the rate of decline over time, as necessary to ensure that the market continues to function and advance emissions reduction goals. (17, 19, and 35)

RESPONSE TO COMMENTS 86 AND 87: The adopted rules incorporate, at N.J.A.C. 7:27C-5.1, the same rate of decline as the other states in RGGI. New Jersey will be an active participant in the

RGGI program and looks forward to working with the other states during the next program review to evaluate and improve the program.

**Environmental Justice Communities**

88. COMMENT: Revenue from RGGI should go to pollution-affected low income and communities at risk of severe climate impacts, many of which have long borne the burden of pollution and the many, many negative health results that come with it. (22)

RESPONSE: To the extent the commenter is referencing the spending of RGGI proceeds that was outlined in the proposed Global Warming Solutions Fund rules, N.J.A.C. 7:27D, that is beyond the scope of this rulemaking. Accordingly, the Department refers the commenter to the Department's response to similar comments set forth in the notice of adoption of the Global Warming Solutions Fund Rule published elsewhere in this issue of the New Jersey Register.

89. COMMENT: Any aggressive climate change mitigation policy needs to consider the disproportionate impact on environmental justice communities, that is, communities of color and low-income communities. Disproportionate vulnerability might be conferred due to excessive pollution in these neighborhoods, relatively poor infrastructure, higher rates of disease, lack of access to health care and relatively few resources. Disproportionate impacts of climate change faced by environmental justice communities could be exacerbated by the way the United States chooses to battle this global threat. The fight against climate change has the potential to significantly alter our society, and if it is conducted in a "business as usual manner" it also has the potential to perpetuate or exacerbate inequalities that currently exist, which are

rooted in race and class. The Department's cumulative impacts tool correlated the impacts of pollution with race and income, showing that the total amount of pollution in a neighborhood is higher in communities of color and low-income residents. (33)

RESPONSE: The Department acknowledges that the impact of climate change on environmental justice communities must be addressed comprehensively within the State's overall climate plan. To that end Executive Order No. 7 (2018) directs the Department to ensure that environmental justice communities are prioritized as the State re-engages in the RGGI program. The Department believes the most effective way to implement this prioritization is through the distribution of the RGGI proceeds. For this reason, the Global Warming Solutions Fund rules at N.J.A.C. 7:27D elevate the need to "be directly responsive to the negative effects on human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate" to a key objective within the RGGI Strategic Funding Plan development. For more information, the Department refers the commenter to the Department's responses to comments in its notice of adoption of the Global Warming Solutions Fund rules, published elsewhere in this issue of the New Jersey Register.

90. COMMENT: An independent comprehensive analysis entitled, "Analysis of the Public Health Impacts of the Regional Greenhouse Gas Initiative, 2009-2014," found that over its first six years RGGI improved air quality in the region and generated significant localized public health benefits, including addressing fine particulate matter, NO<sub>x</sub>, SO<sub>2</sub>, and hazardous air pollutants. However, even an ambitious CO<sub>2</sub> emissions cap is unlikely to fully address the long-

standing air pollution concerns caused by New Jersey’s fossil power plant emissions, because a Statewide CO<sub>2</sub> emissions limit will not guarantee reductions of locally harmful co-pollutants in any particular location. In fact, California’s experience with cap-and-trade showed that emissions actually increased in some environmental justice communities, while going down overall. Market-based incentives often hurt environmental justice communities. Accordingly, as New Jersey looks to re-enter RGGI, the State should work with environmental justice communities—communities of color and low-income communities who have historically borne higher pollution burdens and face disproportionate risks from climate change—to identify policies and programs that will further reduce air pollution and improve public health; perform an environmental justice analysis to assess potential localized impacts on pollution-overburdened communities (for example, geospatial environmental justice screen using demographic and environmental indicators to identify disadvantaged communities that may be disproportionately impacted by eligible and other sources); conduct ongoing monitoring to evaluate the emissions impacts of RGGI implementation; take specific actions to address the sources of localized air pollution that contribute to the harm in these communities (for example, strengthen enforcement of existing Title V operating permits for power plants and other industrial sources of air pollution and issue more stringent limits when those permits are renewed); ensure that environmental justice communities can meaningfully participate in the process of determining how the state implements RGGI and addresses air pollution; and ensure that these communities have access to the energy efficiency and renewable energy benefits generated by the RGGI program. (12, 14, 19, and 35)

RESPONSE: The Department frequently engages with environmental justice leaders and community members throughout the State to elicit their input and work to solve their most critical concerns. Through its Office of Environmental Justice, and working with the Environmental Justice Advisory Council, the Department continues to seek input to improve the air quality in those areas, and to provide those communities with educational resources, so that they are better able to meaningfully participate in policy decisions. Factsheets summarizing the key aspects of the proposed CO<sub>2</sub> Budget Trading Program rules and the companion Global Warming Solutions Fund rules were developed to help the public understand the rulemakings and provide informed comments.

The companion Global Warming Solutions Fund rules at N.J.A.C. 7:27D address distribution of the State's proceeds from RGGI auctions and places a priority on environmental justice communities and efforts to direct RGGI proceeds in ways that benefit these communities. Under the adopted Global Warming Solutions Fund rules, the Strategic Funding Plan will be developed through a transparent stakeholder-driven process, and the Department will ensure participation from environment justice advocates. The Department will continue to improve its outreach to and education of environmental justice communities, in order to address local emissions within these communities.

91. COMMENT: It is outrageous that New Jersey would even consider a program that dedicates revenue to environmental justice communities, when that revenue is generated through the issuing of pollution credits that represent continued emissions in those same communities. Job creation, clean energy, and energy efficiency programs in these communities

should not depend on residents enduring continued pollution; any legislative approach towards addressing the climate crisis in New Jersey must prioritize mandatory emissions reductions in environmental justice communities, which the proposed rules do not do. (34)

RESPONSE: To the extent the commenter is referencing the spending of RGGI proceeds that was outlined in the proposed Global Warming Solutions Fund Rule, that is beyond the scope of this rulemaking. Accordingly, the Department refers the commenter to the Department's response to similar comments set forth in the adoption of the Global Warming Solutions Fund rules, N.J.A.C. 7:27D, published elsewhere in this issue of the New Jersey Register.

92. COMMENT: The New Jersey Environmental Justice Alliances and its allies have developed a policy recommendation that, if implemented, would make the operation of RGGI in New Jersey more environmental justice friendly. Essentially, it would require power plants that are subject to a climate change mitigation policy such as RGGI, and that are in an environmental justice community or emit air pollution that significantly impacts an environmental justice community, to reduce their emissions. The goal of this policy is not only to reduce greenhouse gas emissions but also to lower emissions of locally harmful greenhouse co-pollutants, such as fine particulate matter, which will most likely be reduced if CO<sub>2</sub> emissions are reduced. Evidence of this is the estimated amount of co-pollutant reductions due to RGGI that appear in the preamble to the proposed New Jersey RGGI operating rule. While this "mandatory emissions reductions" policy recommendation is not a silver bullet and will not take care of all, or even most, of the pollution in environmental justice communities, it could serve as the centerpiece of a coherent pollution reduction strategy for environmental justice

communities in New Jersey. New Jersey needs cumulative policies to address cumulative impacts in New Jersey environmental justice communities, making climate change mitigation policy immediately relevant for environmental justice communities because it would begin improving residents' health as soon it is employed, as opposed to becoming visibly effective only during the next plausibly climate change related "episode," such as a severe storm or heat wave. (3, 7, 9, 12, 22, 26, 27, 29, 32, 33, and 35)

RESPONSE: The Department understands the desire to link climate policy with localized emission reductions in environmental justice communities. To the extent that localized emission reductions occur within the confines of a climate policy, such as replacing diesel trucks with clean-fuel technology, this is the State's goal. However, many different climate policies will be needed to meet New Jersey's 2050 Global Warming Response Act limit, and not all of them will provide localized co-benefits. This is the case with RGGI, which holistically addresses CO<sub>2</sub> emissions from the electric generating sector; but cannot double as a mechanism to reduce local air pollutants. CO<sub>2</sub> is a global pollutant, and the goal is to reduce its overall presence in the atmosphere to slow the process of global warming and its impacts on the State. The Department will continue to address other air pollutant emissions through its existing authority, separate from these adopted rules.

93. COMMENT: New Jersey should host a series of meetings to determine how best to implement the New Jersey Environmental Justice Alliance's (NJEJA's) "mandatory emissions reductions" policy recommendation. New Jersey would be the first state to do this and really be a leader in equity and climate change litigation policy. Specifically, New Jersey could form a

workgroup that determines the details of implementation. The workgroup could consist of the Department, the Governor's Office, NJEJA, several interested New Jersey environmental justice and environmental groups, several interested environmental justice groups from outside of New Jersey, and several interested national Green Groups. NJEJA co-leads a national workgroup dedicated to determining how to implement this recommendation and it includes the Center for Earth, Energy and Democracy from Minneapolis; the national Sierra Club, and Earthjustice. All of these groups are willing to lend their technical and legal expertise to a collaborative effort in New Jersey aimed at determining how to implement the mandatory emissions reductions recommendation. (32 and 33)

RESPONSE: There is not an effective way to integrate local emission reduction requirements into this type of climate policy. However, the Department is committed to considering other mechanisms that could be implemented separate from RGGI that would address both CO<sub>2</sub> and localized air emissions.

94. COMMENT: Ironbound and Newark, like other low-income cities of color throughout the State, are home to regional energy centers like the Newark Energy Center. As one of the newer facilities in the region, there is concern that under RGGI, the Newark Energy Center will not be forced to lower the emissions it produces, and even worse, may make it possible through the sale of credits for emissions to also remain at current levels at older, dirtier facilities like the Newark Bay Cogeneration Plant, which is in the same community. (7)

RESPONSE: The Newark Energy Center is a state-of-the-art facility and currently no additional control technology exists that would further reduce its CO<sub>2</sub> emissions. However, the goal of

RGGI is to support the ongoing drive towards renewable energy alternatives, such as solar and wind power. To that end, as the RGGI states ratchet down on the regional emissions from all fossil fuel-fired electric generating units, these units, new or old, will be forced to consider large-scale upgrades in CO<sub>2</sub> emission control technology, once viable, or reduce their operations in favor of lower emitting or renewable generation sources.

95. COMMENT: Representatives of the Department and the Governor's Office have expressed concern that the RGGI Model Rule may prohibit the incorporation of New Jersey Environmental Justice Alliance's "mandatory emissions reductions" policy recommendation into the CO<sub>2</sub> Budget Trading Program rules. However, the Model Rule provides a flexible framework that allows states to incorporate ideas and details that will make the rule particularly suitable for each individual state. Thus, the Model Rule can encompass the "mandatory emissions reductions" policy recommendation. Earthjustice, with the help of the national Sierra Club, developed a legal memorandum that provides examples of the Model Rule's flexibility and argues that it does not legally prohibit the incorporation of the "mandatory emissions reductions" policy recommendation into the CO<sub>2</sub> Budget Trading Program rules. (32 and 33)

RESPONSE: The Department acknowledges that the Model Rule is a framework for states to create the necessary regulatory requirements to implement RGGI. In this way, state-specific requirements can be embedded into the existing structure, so long as they do not disturb the market or program goals. For example, as noted in the memorandum on Model Rule flexibility that the commenter included with its comments, New York plans to revise its RGGI regulations to cover multi-unit plants whose aggregate capacity is greater than 25 megawatts, even if no

individual unit within the plant exceeds that threshold. This expansion of the regulated entities to those below the Model Rule’s 25-megawatt threshold was agreed to ahead of time by the other RGGI states as an acceptable modification with limited ability to negatively impact the market. New Jersey considered a similar modification, but no longer has any qualifying units, as they were addressed as part of the State’s High Energy Demand Day rules a decade ago. See N.J.A.C. 7:27-19. However, integrating an emissions limit or criteria “command and control” type initiative into a market-based structure is a much more significant change, and would likely have market impacts. The Department is committed to considering other mechanisms that could be implemented, separate from RGGI.

96. COMMENT: The Department should continue to engage meaningfully with environmental justice stakeholders as it works to finalize the proposed rule and implement the CO<sub>2</sub> Budget Trading Program. Engaging with communities that may be most heavily affected by the program is essential to promoting environmentally and socially just outcomes. (19)

RESPONSE: The Department frequently engages with environmental justice leaders and community members throughout the State to elicit their input and work to solve their most critical concerns. The Department will continue to do this, with an emphasis on RGGI implementation and impact. Further, under the adopted Global Warming Solutions Fund rules, the Strategic Funding Plan for distribution of the State’s proceeds from RGGI auctions will be developed through a transparent stakeholder-driven process, which includes the participation of environment justice advocates.

## **Summary of Agency-Initiated Changes:**

### **N.J.A.C. 7:27A, Air Administrative Procedures and Penalties**

The Department is modifying the Civil Administrative Penalty Schedule at N.J.A.C. 7:27A-3.10(u)10 to add penalty provisions for violations of adopted N.J.A.C. 7:27C-10.6(p)3 that, due to an editing error, were inadvertently omitted from the notice of proposal, as published in the New Jersey Register. The Department discussed these penalties in the notice of proposal Summary at 50 N.J.R. 2499, and the penalties are shown in the courtesy copy of the notice of proposal that the Department posted on its rulemaking website during the public comment period at <https://www.nj.gov/dep/rules/notices.html>.

### **N.J.A.C. 7:27C, CO<sub>2</sub> Budget Trading Program**

#### N.J.A.C. 7:27C-1.2, Definitions

The Department is modifying N.J.A.C. 7:27C-1.2 on adoption to correct or clarify several definitions. “CO<sub>2</sub> allowance auction website” is modified to add the website URL that contains information about CO<sub>2</sub> allowance auctions, which the notice of proposal indicated would be added upon adoption. See 50 N.J.R. at 2506. The proposed definition of “CO<sub>2</sub> authorized account representative” or “account representative” contained a stand-alone sentence after item 2. The modified definition places that sentence before items 1 and 2, to clarify that it is intended to modify both those items. “Compliance account” is modified to add the word “period” that was inadvertently omitted. “Control period” is modified to clarify that RGGI’s fifth control period will be the first control period in which New Jersey will again participate in RGGI. At “interim control period,” the Department is replacing “one-calendar-year” with “calendar-year” to be consistent with the definition of “initial control period.” The definition of

“ORIS code” indicates that the code is four digits; the definition as modified on adoption does not limit the number of digits in the code. The proposed definition of “submit” or “serve” contained a stand-alone sentence after item 3. The modified definition places that sentence before items 1 through 3, to clarify that it is intended to modify all three items.

#### N.J.A.C. 7:27C-1.4, General provisions

Modified N.J.A.C. 7:27C-1.4(g) refers to violations of the chapter instead of the subchapter, which was incorrect and inconsistent with N.J.A.C. 7:27C-1.4(h).

#### N.J.A.C. 7:27C-5.2, CO<sub>2</sub> allowance allocations

At N.J.A.C. 7:27C-5.2(f) the Department is removing the term “New Jersey” since the term is not part of the defined term “consumer benefit account.”

#### N.J.A.C. 7:27C-5.3, Retirement of CO<sub>2</sub> allowances on behalf of cogeneration units

Adopted N.J.A.C. 7:27C-5.3 governs retirement of CO<sub>2</sub> allowances on behalf of cogeneration units to reflect the adjustment of compliance obligations. At subsections (b) and (d), the Department is adding the phrase “the compliance obligation adjustment” and deleting “CO<sub>2</sub> allowances” (deletion only at subsection (b)) to clarify that the request by a qualified cogeneration unit is for an adjustment of its compliance obligation, not for the allocation of CO<sub>2</sub> allowances, consistent with N.J.A.C. 7:27C-5.3(c) and (d). The Department will not be allocating CO<sub>2</sub> allowances to cogeneration units under this program design.

#### N.J.A.C. 7:27C-5.5, Fixed-price sale of CO<sub>2</sub> allowances to a certified dispatch agreement facility

At N.J.A.C. 7:27C-5.5(g), the Department is replacing the term “assigned” with “transferred” for consistency with the cogeneration provisions at N.J.A.C. 7:27C-5.3(f), and removing the

phase “established pursuant to N.J.A.C. 7:27C-5.2(a),” since “consumer benefit account” is defined at N.J.A.C. 7:27A-1.2.

#### N.J.A.C. 7:27C-6.9, Compliance

The Department is eliminating redundant provisions addressing guidelines for the assessment of fines, penalties, or other obligations. Specifically, the provisions at proposed N.J.A.C. 7:27C-6.9(f)3 and 4 repeat the provisions at N.J.A.C. 7:27C-6.9(f)1 and 2 (which apply to excess emissions during a control period) to apply them to excess emissions in an interim control period. Since the intent of the Department in following the CO<sub>2</sub> Budget Trading Program Model Rule (RGGI Model Rule) was to treat these situations identically, modified N.J.A.C. 7:27C-6.9(f)1 refers on adoption to the interim control period, as well as the control period and the initial control period. Consistent with this modification, the Department is deleting the now redundant provisions at proposed N.J.A.C. 7:27C-6.9(f)3 and 4.

#### N.J.A.C. 7:27C-8.1, General requirements

The Department is modifying N.J.A.C. 7:27C-8.1(a) on adoption to refer to definitions at N.J.A.C. 7:27C-1.2, rather than at “proposed” N.J.A.C. 7:27C-1.2. The definitions are codified, making the reference to them as “proposed” incorrect. The Department is also deleting the phrase “as it is tailored to apply to the CO<sub>2</sub> Budget Trading Program,” which is unnecessary.

#### N.J.A.C. 7:27C-8.2, Monitoring system certification procedures, and 8.8, Additional requirements to provide output data, correcting cross-references

Proposed N.J.A.C. 7:27C-8.2(m) refers to the Department’s issuance of a notice of disapproval. The notices are discussed at subsection (n), rather than subsection (m); accordingly, the Department is correcting the cross-reference. Similarly, the Department is

correcting N.J.A.C. 7:27C-8.8(g)3 on adoption to refer to subsection (i), where quality assurance and quality control activities are discussed.

#### N.J.A.C. 7:27C-10.2, Definitions related to CO<sub>2</sub> emissions offset projects

At proposed N.J.A.C. 7:27C-10.2, the phrase “but not limited to” is used in connection with the definition of “unintentional reversal” but not in the proposed definition of “intentional reversal,” which the Department is modifying to include that phrase. It was not the Department’s intention to limit the defined term to those reversals provided as non-exclusive examples.

#### Appropriate capitalization of “state” and “State”

The Department is modifying the definition of “attribute” at N.J.A.C. 7:27C-1.2 to change the uppercase “S” in “state program eligibility “ with a lowercase “s.” Since RGGI is a multistate program, the eligibility is not New Jersey specific. At N.J.A.C. 7:27C-1.5(c) and 11.11(b) the modifications on adoption replace “State” with “participating state,” as the words are not intended to be New Jersey-specific, but are intended to refer to all of the states that participate in RGGI.

#### Miscellaneous modifications

The Department is correcting the format of several equations throughout the adopted rules to make them more readable, and consistent with the formatting in the 2018 revised RGGI Model Rule. The Department also is updating several website addresses in the adopted rules because the addresses are no longer functioning. At N.J.A.C. 7:27C-11.5(a), the Department is replacing a specific website address with the general RGGI website address, to avoid codifying an incorrect website address in the event the address changes in the future. The Department is

modifying N.J.A.C. 7:27C-6.8(b) on adoption to add a cross-reference to further clarify the different allowances allocated for a cogeneration set-aside account as opposed to a fixed-price set-aside account.

#### Modification in response to 2018 revisions to the RGGI Model Rule

Subsequent to the publication of the notice of proposal of this rulemaking, RGGI issued a revision to the RGGI Model Rule that impacts the State's CO<sub>2</sub> budget trading program rules, available on the RGGI website at [www.rggi.org](http://www.rggi.org). (2018 revised Model Rule.) As stated in the notice of proposal Summary, 50 N.J.R. at 2482, the Department based these amendments and new rules on the RGGI Model Rule, including subsequent revisions, as have all RGGI states in the development of their rules. As explained in the notice of proposal Summary, 50 N.J.R. at 2483, this consistency is necessary to ensure the fungibility of CO<sub>2</sub> allowances across the participating states, which supports the regional trading of CO<sub>2</sub> allowances and the use of a CO<sub>2</sub> allowance issued in one participating state for compliance by a regulated source in another participating state, and uniform emissions monitoring and reporting requirements. The Department's modifications on adoption to reflect these non-substantive changes are discussed below.

The Department is modifying N.J.A.C. 7:27C-5.2(e) on adoption to indicate that the allocation years could extend beyond 2031, and that for years where there is no adjusted budget, the "adjusted budget" would equal the "base budget." Both changes address the 2018 updates and revisions to the RGGI Model Rule, mentioned above.

Based on the 2018 revised Model Rule, the Department is modifying N.J.A.C. 7:27C-5.2(h) to replace the parenthetical "TBDs" with 2021, the year to be used in calculating the ratio

between New Jersey’s budget and the regional budget to determine the third adjustment for banked allowances quantity for allocation years 2021 through 2025. Also based on the 2018 revised Model Rule, the Department is adding the phrase “or before” to N.J.A.C. 7:27C-5.2(i) to clarify that the Department can establish the 2021 through 2025 adjusted budgets before, not just on, the deadline of April 15, 2021. Similarly, the Department is adding the phrase “or before” to N.J.A.C. 7:27C-5.2(h) to clarify that the Department can determine the third adjustment to banked allowances quantity for allocation years 2021 through 2025 before, not just on, the deadline of March 15, 2021.

The Department is also modifying N.J.A.C. 7:27C-2.4(a)2; 2.6(b)1 and 2; 2.6(f)1 and 2; 6.3(b)1; and 6.7(b)1 and 2, to remove the phrase “and facsimile transmission number” to align with the 2018 revised RGGI Model Rule. Because the 2018 revised Model Rule does not remove this phrase from provisions relating to offset allowances, the Department is retaining the reference to a facsimile transmission number at N.J.A.C. 7:27C-10.4(e)1, 10.8(c)1, and 10.9(d)1, until such time as the RGGI states determine such a change is necessary and next review and revise the RGGI Model Rule.

Additional modifications on adoption correct grammar and punctuation, and correct similar errors.

### **Federal Standards Statement**

N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65) require State agencies that adopt, readopt, or amend State rules that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis. The Department is adopting amendments

and new rules for which there are no comparable rules or Federal standards. Accordingly, no Federal standards analysis is required.

**Full text** of the adoption follows (additions to proposal indicated in boldface with asterisks **\*thus\***; deletions from proposal indicated in brackets with asterisks **\*[thus]\***):

7:27-22.28 Incorporation of CO<sub>2</sub> Budget Trading Program requirements

(a) The owner or operator of a facility subject to N.J.A.C. 7:27C shall apply to incorporate the requirements of the CO<sub>2</sub> Budget Trading Program at N.J.A.C. 7:27C, as applicable, into the operating permit pursuant to N.J.A.C. 7:27-22.3(u), 22.5, and 22.9, by the following deadlines:

1. For a CO<sub>2</sub> budget source for which the Department had issued an operating permit prior to **\*[(the operative date of this section)]\*** **\*June 11, 2019\***, on or before January 1, 2020;

2. For a CO<sub>2</sub> budget source for which, prior to **\*[(the operative date of this section)]\*** **\*June 11, 2019\***, the Department had issued a preconstruction permit but had not issued an operating permit, no later than 12 months after the facility commences operation; and

3. For a CO<sub>2</sub> budget source for which the Department had not issued an operating permit or a preconstruction permit prior to **\*[(the operative date of this section)]\*** **\*June 11, 2019\***, and for which the owner or operator elects to obtain both preconstruction and operating permit approval, no later than 12 months before construction commences.

(b) (No change from proposal.)

7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act

(a) - (t) (No change.)

(u) The violations of N.J.A.C. 7:27C, whether the violation is minor or non-minor in accordance with (q) through (t) above, and the civil administrative penalty amounts for each violation are as set forth in the following Civil Administrative Penalty Schedule. The numbers of the following subsections correspond to the numbers of the corresponding subchapter in N.J.A.C. 7:27C. The rule summaries provided in the column labelled “Class” for the requirements set forth in the Civil Administrative Penalty Schedule in this subsection are provided for informational purposes only and have no legal effect.

CIVIL ADMINISTRATIVE PENALTY SCHEDULE

1. through 9. (No change from proposal.)

10. The violations of N.J.A.C. 7:27C-10, CO<sub>2</sub> Emissions Offset Projects, and the civil administrative penalty amounts for each violation are as set forth in the following table:

<u>Citation</u>	<u>Class</u>	<u>Type of Violation</u>	<u>First Offense</u>	<u>Second Offense</u>	<u>Third Offense</u>	<u>Subsequent Offense</u>
...						
<b>*N.J.A.C. 7:27C-10.6(p)3</b>	<b>Submit consistency application</b>	<b>M</b>	<b>\$2,000</b>	<b>\$4,000</b>	<b>\$10,000</b>	<b>\$30,000*</b>

<u>Citation</u>	<u>Class</u>	<u>Violation</u>	Type of	First	Second	Third	Fourth and
							Subsequent
							Each
				<u>Offense</u>	<u>Offense</u>	<u>Offense</u>	<u>Offense</u>

7:27C-1.2 Definitions

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise. For additional definitions related to CO<sub>2</sub> emissions offset projects, see N.J.A.C. 7:27C-10.2.

...

“Attribute” means a characteristic associated with electricity generated using a particular renewable fuel, such as its generation date, facility geographic location, unit vintage, emissions output, fuel, \*[State]\* **\*state\*** program eligibility, or other characteristic that can be identified, accounted for, and tracked.

...

“CO<sub>2</sub> allowance auction website” means \*[a]\* **\*the\*** website established by the Department that contains information about CO<sub>2</sub> allowance auctions, \*[(to be added upon adoption)]\* **\*at <https://www.state.nj.us/dep/aqes/rggi.html>\***.

...

“CO<sub>2</sub> authorized account representative” or “account representative” means **\*the following, and, except in those cases where it would be redundant, also means the alternate CO<sub>2</sub> authorized account representative\***:

1. (No change from proposal.)
2. For a general account, the natural person who is authorized under N.J.A.C. 7:27C-6 to transfer or otherwise dispose of CO<sub>2</sub> allowances held in the general account.

**\*[Except in those cases where it would be redundant, the use of the term “CO<sub>2</sub> authorized account representative” in this chapter includes the alternate CO<sub>2</sub> authorized account representative.]\***

...

“Compliance account” means a COATS account, established by the Department for a CO<sub>2</sub> budget source under N.J.A.C. 7:27C-6, in which the CO<sub>2</sub> allowance allocations for the source are initially recorded and in which are held CO<sub>2</sub> allowances available for use by the source for a control period, the initial control **\*period\***, or an interim control period for the purpose of meeting the CO<sub>2</sub> requirements of N.J.A.C. 7:27C-1.4.

...

“Control period” means a three-calendar-year period. The **\*fifth control period, which is the\*** first control period **\*in which New Jersey will again participate in RGGI,\*** is from January 1, 2021, through December 31, 2023, inclusive. Each subsequent sequential three-calendar-year period is a separate control period.

...

“Cross State Air Pollution Rule (CSAPR) SO<sub>2</sub> Group 2 Trading Program” means a multi-state SO<sub>2</sub> air pollution control and emission reduction program established in accordance with 40 CFR Part 97\*,\* subpart DDDDD and 40 CFR 52.39(a), (c), and (g) through (k) (including such a program that is revised in a SIP revision approved by the Administrator under 40 CFR 52.39(g) or (h) or that is established in a SIP revision approved by the Administrator under 40 CFR 52.39(i)), as a means of mitigating interstate transport of fine particulates and SO<sub>2</sub>.

...

“Excess emissions” means the tonnage of CO<sub>2</sub> emitted by a CO<sub>2</sub> budget source during a control period or **\*the\*** initial control period that exceeds the CO<sub>2</sub> budget emissions limitation for the source.

...

“Interim control period” means the **\*[one-calendar-year]\* \*calendar-year\*** period, during each of the first and second calendar years of each control period. The first interim control period is from January 1, 2021\*[,]\* through December 31, 2021, inclusive. The second interim control period is from January 1, 2022\*[,]\* through December 31, 2022, inclusive. Each successive three-year control period will have two interim control periods, comprised of each of the first two calendar years of that control period.

...

“ORIS code” means a **\*[four-digit]\*** number assigned by the Energy Information Agency at the United States Department of Energy to power plants owned by electric utilities.

...

“Submit” or “serve” means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable rules or regulations in the *\*[following]\* manner\*[:]\* **\*described in 1 through 3 below. Compliance with any “submission,” “service,” or “mailing” deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.\****

1.-3. (No change from proposal.)

*\*[Compliance with any “submission,” “service,” or “mailing” deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.]\**

...

7:27C-1.4 General provisions

(a)-(c) (No change from proposal.)

(d) The Department will use the emissions measurements recorded and reported in accordance with N.J.A.C. 7:27C-8 to determine the unit’s compliance with the CO<sub>2</sub> requirements under (f) below. For the purpose of determining compliance with (f) below, total tons for a control period\*, **the initial control period, or an interim control period\*** shall be calculated as the sum of all recorded hourly emissions (or the tonnage equivalent of the recorded hourly emissions rates) in accordance with N.J.A.C. 7:27C-8. The Department will round total CO<sub>2</sub> emissions to the nearest whole ton, so that any fraction of a ton equal to or greater than 0.50 tons is deemed to equal one ton and any fraction of a ton less than 0.50 tons is deemed to equal zero tons.

(e) (No change from proposal.)

(f) The owners and operators of each CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source shall, as of the CO<sub>2</sub> allowance transfer deadline, hold CO<sub>2</sub> allowances in the source's compliance account, available for compliance deductions under N.J.A.C. 7:27C-6.9, as follows:

1. In the case of *[an]* **the** initial control period, the number of CO<sub>2</sub> allowances held shall be no less than an amount equivalent to the total CO<sub>2</sub> emissions for the initial control period from all CO<sub>2</sub> budget units at the source;
2. In the case of a control period, the number of CO<sub>2</sub> allowances held shall be no less than the total CO<sub>2</sub> emissions for the control period from all CO<sub>2</sub> budget units at the source, less the CO<sub>2</sub> allowances deducted to meet the requirements of *[(g)]* **(f)3** below, with respect to the previous two interim control periods, as determined in accordance with N.J.A.C. 7:27C-6 and 8; and
3. (No change from proposal.)

(g) Each ton of CO<sub>2</sub> emitted in excess of the CO<sub>2</sub> budget emissions limitation for a control period or *[an]* **the** initial control period constitutes a separate violation of this *[subchapter]* **chapter** and applicable State law.

(h) through (t) (No change from proposal.)

#### 7:27C-1.5 Computation of time

(a)-(b) (No change from proposal.)

(c) Unless otherwise stated, if the final day of any time period, pursuant to this chapter, falls on a weekend or a *[State]* **participating state** or Federal holiday, the time period shall be extended to the next business day.

#### 7:27C-2.4 Account certificate of representation

(a) A complete account certificate of representation for a CO<sub>2</sub> authorized account representative shall include the following, in a format prescribed by the Department:

1. (No change from proposal.)
2. The name, address, \*[e-mail]\* **\*email\*** address, **\*and\*** telephone number\*, and facsimile transmission number]\* of the CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub> authorized account representative;
- 3.-5. (No change from proposal.)

(b) (No change from proposal.)

#### 7:27C-2.6 Delegation of authority to make electronic submissions and review information in the CO<sub>2</sub> allowance tracking system

(a) (No change from proposal.)

(b) To delegate authority to make an electronic submission to the Department, a CO<sub>2</sub> authorized account representative shall submit to the Department a notice of delegation, in a format prescribed by the Department, that includes the following:

1. The name, address, \*[e-mail]\* **\*email\*** address, **\*and\*** telephone number\*, and facsimile transmission number]\* of the delegating CO<sub>2</sub> authorized account representative;
2. The name, address, \*[e-mail]\* **\*email\*** address, **\*and\*** telephone number\*, and facsimile transmission number]\* of each electronic submission agent;

3.-4. (No change from proposal.)

(c)-(e) (No change from proposal.)

(f) To delegate authority to review information in COATS in accordance with (e) above, the CO<sub>2</sub> authorized account representative shall submit to the Department a notice of delegation, in a format prescribed by the Department, that includes the following:

1. The name, address, \*[e-mail]\* **\*email\*** address, **\*and\*** telephone number\*, and facsimile transmission number]\* of the delegating CO<sub>2</sub> authorized account representative;
2. The name, address, \*[e-mail]\* **\*email\*** address, **\*and\*** telephone number\*, and facsimile transmission number]\* of each reviewer;

3.-4. (No change from proposal.)

(g) (No change from proposal.)

#### 7:27C-4.1 Compliance certification report

(a) (No change from proposal.)

(b) The CO<sub>2</sub> authorized account representative shall include in the compliance certification report under (a) above the following:

1. (No change from proposal.)
2. At the CO<sub>2</sub> authorized account representative's option, the serial numbers of the CO<sub>2</sub> allowances that are to be deducted from the CO<sub>2</sub> budget source's compliance account under N.J.A.C. 7:27C-6.9 for the control period\*, **the initial control period, or an interim**

**control period\***, including the serial numbers of any CO<sub>2</sub> offset allowances that are to be deducted, subject to the limitations of N.J.A.C. 7:27C-6.9(a)3; and

3. (No change from proposal.)

(c) (No change from proposal.)

#### 7:27C-5.2 CO<sub>2</sub> allowance allocations

(a) The Department will allocate CO<sub>2</sub> allowances representing 100 percent of the tons for each allocation year from the New Jersey CO<sub>2</sub> Budget Trading Program base budget set forth in N.J.A.C. 7:27C-5.1 to a consumer benefit account, less those allowances set aside each allocation year pursuant to (b) **\*and (c)\*** below.

(b)-(d) (No change from proposal.)

(e) For **\*the\*** allocation year\*[s]\* 2021 \*[through 2031]\* **\*and each succeeding allocation year\***, the New Jersey CO<sub>2</sub> Budget Trading Program adjusted budget will be the maximum number of allowances available for allocation in a given allocation year, except for CO<sub>2</sub> offset allowances and CCR allowances. **\*In any year in which the budget is not adjusted, the “adjusted budget” will equal the base budget.\***

(f) The Department will allocate CCR allowances, separate from and in addition to the New Jersey CO<sub>2</sub> Budget Trading Program base budget set forth in N.J.A.C. 7:27C-5.1, to the \*[New Jersey]\* consumer benefit account, in order to contain the cost of CO<sub>2</sub> allowances. The Department will allocate CCR allowances in the following manner:

1. (No change from proposal.)

2. On or before January 1, 2021, and on or before January 1 of each calendar year thereafter, the Department will allocate current vintage year CCR allowances equal to 10 percent of the New Jersey CO<sub>2</sub> Trading Program base budget for the calendar year and withdraw the number of CCR allowances that remain in the \*[New Jersey]\* consumer benefit account at the end of the prior calendar year.

(g) (No change from proposal.)

(h) On **\*or before\*** March 15, 2021, the Department will determine the third adjustment for banked allowances quantity for allocation years 2021 through 2025, through the application of the following formula:

$$\text{TABA} = ((\text{TA} - \text{TAE})/5) \times \text{RS}\%$$

where:

...

RS% = New Jersey's \*[(TBD)]\* **\*2021\*** budget divided by the \*[(TBD)]\* **\*2021\*** regional budget.

(i) On **\*or before\*** April 15, 2021, the Department will establish the New Jersey CO<sub>2</sub> Budget Trading Program adjusted budgets for the 2021 through 2025 allocation years by the following formula:

...

(j) (No change from proposal.)

#### 7:27C-5.3 Retirement of CO<sub>2</sub> allowances on behalf of cogeneration units

(a) (No change from proposal.)

(b) To qualify for an adjustment of its compliance obligation, a CO<sub>2</sub> budget unit must be a cogeneration unit for which the CO<sub>2</sub> authorized account representative has not accepted a fixed-price sale offer of CO<sub>2</sub> allowances from the Department pursuant to N.J.A.C. 7:27C-5.5(a) during the calendar year that corresponds to the allocation year for which the request for \*[CO<sub>2</sub> allowances]\* **\*the compliance obligation adjustment\*** pursuant to this section is being made.

(c) The CO<sub>2</sub> authorized account representative seeking the compliance obligation adjustment for a cogeneration unit shall submit to the Department, by \*[March]\* **\*January\*** 30 of the year following the allocation year for which the compliance obligation adjustment is being requested, an application that includes the following:

1.-5. (No change from proposal.)

(d) The Department will determine the **\*compliance obligation\*** adjustment for a CO<sub>2</sub> budget unit that is a cogeneration unit that meets the applicable requirements at (b) and (c) above based on the CO<sub>2</sub> emissions for the CO<sub>2</sub> budget unit during the allocation year for which an adjustment request is being submitted. The Department will adjust the compliance obligation by reducing the total CO<sub>2</sub> emissions by an amount equal to the CO<sub>2</sub> that is emitted as result of providing useful thermal energy or electricity\*, **or both,\*** supplied directly to the co-located facility during the allocation year. The compliance obligation will include CO<sub>2</sub> emissions associated with the production of electricity that is supplied to a regional electric grid, including, but not limited to, PJM and NYISO transmission and related distribution systems and the cogeneration unit will be responsible for securing CO<sub>2</sub> allowances for those emissions.

\*[(e) The Department will allocate CO<sub>2</sub> allowances in an amount equivalent to the compliance adjustment determined pursuant to (d) above to the cogeneration set-aside account.]\*

\*[(f)]\* **\*(e)\*** At the end of each control period or **\*the\*** initial control period, the Department will retire allowances from the cogeneration set-aside account in an amount equivalent to the emissions deducted from one or more compliance obligations pursuant to (d) above. The Department will transfer any remaining allowances to the consumer benefit account to be available for auction.

#### 7:27C-5.4 Distribution of CO<sub>2</sub> allowances in the consumer benefit account

(a) (No change from proposal.)

(b) Except for those CO<sub>2</sub> allowances available **\*to adjust the compliance obligation of a cogeneration unit pursuant to N.J.A.C. 7:27C-5.3 or\*** for direct sale pursuant to N.J.A.C. 7:27C-5.5 to a CO<sub>2</sub> authorized account representative for a certified dispatch agreement facility, the Department will make all CO<sub>2</sub> allowances for a respective allocation year that are held in the consumer benefit account available for sale through an auction administered by the Department or on its behalf, pursuant to N.J.A.C. 7:27C-11.

(c) (No change from proposal.)

#### 7:27C-5.5 Fixed-price sale of CO<sub>2</sub> allowances to a certified dispatch agreement facility

(a)-(f) (No change from proposal.)

(g) Any CO<sub>2</sub> allowances purchased at a fixed-price sale offer that remain in the compliance account of a certified dispatch agreement facility after the Department has made the compliance deduction for a control period or **\*the\*** initial control period pursuant to N.J.A.C.

7:27C-6.9(b) will be \*[assigned]\* **\*transferred\*** by the Department to the consumer benefit account \*[established pursuant to N.J.A.C. 7:27C-5.2(a)]\*.

#### 7:27C-6.3 Procedures for opening a general account

(a) (No change from proposal.)

(b) A complete application for a general account shall be submitted to the Department and include the following in a format prescribed by the Department:

1. The name, address, \*[e-mail]\* **\*email\*** address, **\*and\*** telephone number\*[, and facsimile transmission number]\* of the CO<sub>2</sub> authorized account representative;

2.-6. (No change from proposal.)

(c)-(d) (No change from proposal.)

#### 7:27C-6.7 Delegation of authority to make electronic submissions by the CO<sub>2</sub> authorized account representative for a general account

(a) (No change from proposal.)

(b) In order to delegate authority to make an electronic submission to the Department in accordance with (a) above, the CO<sub>2</sub> authorized account representative shall submit to the Department a notice of delegation, in a format prescribed by the Department, that includes the following:

1. The name, address, \*[e-mail]\* **\*email\*** address, **\*and\*** telephone number\*[, and facsimile transmission number]\* of such CO<sub>2</sub> authorized account representative;

2. The name, address, \*[e-mail]\* **\*email\*** address, **\*and\*** telephone number\*, [ and facsimile transmission number]\* of each natural person to whom the authority to make an electronic submission is delegated, herein referred to as “electronic submission agent”;

3.-4. (No change from proposal.)

(c)-(d) (No change from proposal.)

7:27C-6.8 Recording of CO<sub>2</sub> allowance allocations and awards

(a) (No change from proposal.)

(b) Each year, the Department will record CO<sub>2</sub> allowances allocated \*[under]\* **\*pursuant to\*** N.J.A.C. 7:27C-5.5(a) in a fixed-price contract set-aside account and **\*pursuant to N.J.A.C. 7:27C-5.2(c) in\*** a cogeneration set-aside account for the year after the last year for which CO<sub>2</sub> allowances were previously allocated to that allocation set-aside account.

(c)-(f) (No change from proposal.)

7:27C-6.9 Compliance

(a) CO<sub>2</sub> allowances are available to be deducted in order for a CO<sub>2</sub> budget source to comply with the CO<sub>2</sub> requirements of N.J.A.C. 7:27C-1.4 for a control period\*, **the initial control period, or an interim control period\***, provided that:

1. The CO<sub>2</sub> allowances, other than CO<sub>2</sub> offset allowances, are of allocation years that fall within a prior control period or the same control period\*, **initial control period, or interim control period\*** for which the allowances will be deducted;

2. The CO<sub>2</sub> allowances are held in the CO<sub>2</sub> budget source's compliance account as of the CO<sub>2</sub> allowance transfer deadline for that control period, the initial control period, or the interim control period or are transferred into the compliance account by a CO<sub>2</sub> allowance transfer correctly submitted for recording under N.J.A.C. 7:27C-7.1 by the CO<sub>2</sub> allowance transfer deadline for that control period, the initial control period\*,\* or **\*the\*** interim control period;
3. For CO<sub>2</sub> offset allowances, the number of CO<sub>2</sub> offset allowances that are available to be deducted in order for a CO<sub>2</sub> budget source to comply with the CO<sub>2</sub> requirements of N.J.A.C. 7:27C-1.4 for a control period, the initial control period\*,\* or an interim control period may not exceed the number of allowances required to account for 3.3 percent of the CO<sub>2</sub> budget source's CO<sub>2</sub> emissions for that control period or the initial control period, or 1.65 percent of the CO<sub>2</sub> budget source's CO<sub>2</sub> emissions for an interim control period, as determined in accordance with this subchapter and N.J.A.C. 7:27C-8; and
4. The CO<sub>2</sub> allowances are not necessary for deductions for excess emissions for a prior control period **\*or prior initial control period\*** under (e) below.

(b) Following the recording, in accordance with N.J.A.C. 7:27C-7.2, of CO<sub>2</sub> allowance transfers submitted for recording in the CO<sub>2</sub> budget source's compliance account by the CO<sub>2</sub> allowance transfer deadline for a control period, the initial control period, or an interim control period, the Department will deduct CO<sub>2</sub> allowances available under (a) above to cover the source's CO<sub>2</sub> emissions for the control period, the initial control period, or the interim control period, as follows:

1. Until the number of CO<sub>2</sub> allowances deducted equals the number of tons of total CO<sub>2</sub>

emissions, (or 0.50 times the number of tons of total CO<sub>2</sub> emissions for an interim control period), less any CO<sub>2</sub> emissions attributable to the burning of eligible biomass\*[,] and any CO<sub>2</sub> emissions eligible for deduction pursuant to N.J.A.C. 7:27C-5.3, determined in accordance with N.J.A.C. 7:27C-8, from all CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source for the control period, the initial control period, or the interim control period; or

2. (No change from proposal.)

(c) The CO<sub>2</sub> authorized account representative for a CO<sub>2</sub> budget source's compliance account may request the deduction of specific CO<sub>2</sub> allowances in the compliance account, identified by serial number, for emissions or excess emissions for a control period, the initial control period, or **\*an\*** interim control period in accordance with (b) above or (e) below, as applicable. Such identification shall be made in the compliance certification report pursuant to N.J.A.C. 7:27C-4.1(b)2.

(d) Where there is no, or only partial, identification by the CO<sub>2</sub> authorized account representative\*[,] of available CO<sub>2</sub> allowances by serial number pursuant to N.J.A.C. 7:27C-4.1(b)2, the Department will deduct CO<sub>2</sub> allowances for a control period, **\*the\*** initial control period, or **\*an\*** interim control period from the CO<sub>2</sub> budget source's compliance account, in the following order:

1.-2. (No change from proposal.)

(e) (No change from proposal.)

(f) The deduction of any CO<sub>2</sub> allowances required under (e) above will not affect the liability of the owners and operators of the CO<sub>2</sub> budget source or the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget

source for any fine, penalty, or assessment, or their obligation to comply with any other remedy, for the same violation, as ordered under applicable State law. The Department will apply the following guidelines in assessing fines, penalties, or other obligations:

1. For purposes of determining the number of days of violation, if a CO<sub>2</sub> budget source has excess emissions for a control period, the initial control period, or an interim control period, each day in the control period\*, **initial control period, or interim control period\*** constitutes a day *\*[in]\* \*of\** violation, unless the owners and operators of the unit demonstrate that a lesser number of days should be considered; **\*and\***
2. Each ton of excess emissions is a separate violation\**;*\*.\*
- \*[3. For purposes of determining the number of days of violation, if a CO<sub>2</sub> budget source has excess emissions for an interim control period, each day in the interim control period constitutes a day in violation, unless the owners and operators of the unit demonstrate that a lesser number of days should be considered; and*
4. Each ton of excess interim emissions is a separate violation.]\*

(g) The Department's determination that a CO<sub>2</sub> budget source had excess emissions and the concomitant deduction of CO<sub>2</sub> allowances from that CO<sub>2</sub> budget source's account may be later challenged in the context of an adjudicatory hearing, as set forth at N.J.A.C. 7:27C-1.6, or in the context of *\*[or]\** any civil or criminal judicial action arising from or encompassing that excess emissions violation. The commencement or pendency of any administrative enforcement or civil or criminal judicial action arising from or encompassing that excess emissions violation will not prevent the Department from deducting the CO<sub>2</sub> allowances resulting from the Department's original determination that the relevant CO<sub>2</sub> budget source has had excess

emissions. Should the Department's determination of the existence or extent of the CO<sub>2</sub> budget source's excess emissions be revised, either by a settlement or as the result of any administrative or judicial action, the Department will act as follows:

1.-2. (No change from proposal.)

(h) The Department will record\*,\* in the appropriate compliance account, all deductions from such an account made pursuant to (b) and (e) above.

(i)-(j) (No change from proposal.)

#### 7:27C-7.2 Recording of CO<sub>2</sub> allowance transfer

(a) (No change from proposal.)

(b) The Department will not record a CO<sub>2</sub> allowance transfer into or out of a compliance account that is submitted for recording after the CO<sub>2</sub> allowance transfer deadline that includes any CO<sub>2</sub> allowances of allocation years falling within a control period\*, **initial control period,\*** or interim control period prior to or the same as the control period\*, **initial control period,\*** or interim control period to which the CO<sub>2</sub> allowance transfer deadline applies until after completion of the process at N.J.A.C. 7:27C-6.9(b).

(c) (No change from proposal.)

#### 7:27C-8.1 General requirements

(a) The owner, operator, and to the extent applicable, the CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in this subchapter and all applicable sections of 40 CFR Part

75 and all appendices thereto, as specified in this subchapter, which are incorporated **\*herein\*** by reference, as supplemented or amended. Where referenced in this subchapter, the monitoring requirements of 40 CFR Part 75 shall be adhered to in a manner consistent with the purpose of monitoring and reporting CO<sub>2</sub> mass emissions pursuant to this chapter. For purposes of complying with such requirements, the definitions in N.J.A.C. 7:27C-1.2 and 40 CFR 72.2, incorporated herein by reference, as supplemented and amended, apply, and the terms “affected unit” and “designated representative” in 40 CFR Part 75 are replaced by the terms “CO<sub>2</sub> budget unit” and “CO<sub>2</sub> authorized account representative,” respectively, as defined at N.J.A.C. 7:27C-1.2. For units not subject to an acid rain emissions limitation, the term “Administrator” in 40 CFR Part 75 is replaced with the term “Department.” Where the term “continuous emissions monitoring system” (or “CEMS”<sup>1</sup>)<sup>2</sup> is used in 40 CFR Part 75, the definition of that term at <sup>3</sup>[proposed] N.J.A.C. 7:27C-1.2 applies<sup>4</sup>, as it is tailored to apply to the CO<sub>2</sub> Budget Trading Program<sup>5</sup>.

(b)-(c) (No change from proposal.)

(d) The owner or operator of a CO<sub>2</sub> budget unit shall meet the monitoring system certification and other requirements of (c) above and shall record, report, and quality-assure the data from the monitoring systems under (c)1 above according to the following schedule:

1. For the owner or operator of a CO<sub>2</sub> budget unit that commences commercial operation before <sup>6</sup>[(six months before the effective date of this section)]<sup>7</sup> **\*December 17, 2018\***, on and after <sup>8</sup>[(the operative date of this section)]<sup>9</sup> **\*June 11, 2019\***;

2. For the owner or operator of a CO<sub>2</sub> budget unit that commences commercial operation on or after \*[(six months before the effective date of this section)]\* **\*December 17, 2018\***, on and after the later of the following dates:

- i. \*[(Six months after the operative date of this section)]\* **\*December 11, 2019\***; or
- ii. (No change from proposal.)

3. (No change from proposal.)

(e)-(n) (No change from proposal.)

#### 7:27C-8.2 Monitoring system certification procedures

(a)-(e) (No change from proposal.)

(f) The owner or operator shall have a monitoring system recertified in accordance with 40 CFR 75.20(b) whenever the owner or operator of a CO<sub>2</sub> budget unit makes the following replacement, modification, or change:

- 1. (No change from proposal.)
- 2. For a system using stack measurements, such as stack flow, stack moisture content, CO<sub>2</sub> or O<sub>2</sub> monitors, a replacement, modification, or change to the flue gas handling system\*[,]\* or the unit's operation that the Administrator or the Department determines to significantly change the flow or concentration profile. Examples of changes that require recertification include replacement of the analyzer, change in the location or orientation of the sampling probe or site, or changing of flow rate monitor polynomial coefficients.

(g)-(l) (No change from proposal.)

(m) If the certification application is not complete, then the Department will issue a written notice of incompleteness that sets a reasonable date by which the CO<sub>2</sub> authorized account representative shall submit the additional information required to complete the certification application. If the CO<sub>2</sub> authorized account representative does not comply with the notice of incompleteness by the specified date, then the Department may disapprove the application and issue a notice of disapproval pursuant to \*[this subsection]\* **\*(n) below\***. The 120-day review period specified at (k) above shall not begin before receipt of a complete certification application.

(n)-(r) (No change from proposal.)

#### 7:27C-8.5 Recordkeeping and reporting

(a)-(b) (No change from proposal.)

(c) The CO<sub>2</sub> authorized account representative shall submit quarterly reports, as follows:

1. The CO<sub>2</sub> authorized account representative shall report the CO<sub>2</sub> mass emissions data for the CO<sub>2</sub> budget unit, in an electronic format prescribed by the Administrator, unless otherwise prescribed by the Department, for each calendar quarter beginning with:

- i. For a unit that commences commercial operation before \*[(six months before the effective date of this section)]\* **\*December 17, 2018\***, the calendar quarter covering January 1, 2020 through March 31, 2020; or

ii. For a unit commencing commercial operation on or after \*[(six months before the effective date of this section)]\* **\*December 17, 2018\***, the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under N.J.A.C. 7:27C-8.1(d). If the calendar quarter so determined is the third or fourth quarter of 2019, reporting shall commence in the quarter covering January 1, 2020 through March 31, 2020;

2. The CO<sub>2</sub> authorized account representative shall submit each quarterly report to the Department within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in \*[Subpart H of]\* 40 CFR Part 75\*, **Subpart H\*** and 40 CFR 75.64. Quarterly reports shall be submitted for each CO<sub>2</sub> budget unit (or group of units using a common stack), and shall include all the data and information required in \*[Subpart G of]\* 40 CFR Part 75\*, **Subpart G\***, except for opacity, heat input, NO<sub>x</sub> and SO<sub>2</sub> provisions; and
3. (No change from proposal.)

7:27C-8.7 CO<sub>2</sub> budget units that co-fire eligible biomass

- (a) (No change from proposal.)
- (b) The owner or operator of a CO<sub>2</sub> budget unit shall calculate and submit to the Department on a quarterly basis the total dry weight for each distinct type of eligible biomass fired by the CO<sub>2</sub> budget unit during the reporting quarter. The total dry weight shall be determined for each fuel type as follows:

1. For solid fuel types:

$$F_j = \sum_{i=1}^n (1 - M_i) \times F_i$$

\*

$$F_j = \sum_{i=1}^n (1 - M_i) \times F_i$$

\*

where:

...

2. For gaseous fuel types:

$$F_j = D_j \times V_j \times (1 - M_j)$$

where:

...

(c) CO<sub>2</sub> emissions due to firing of eligible biomass shall be determined as follows:

1. (No change from proposal.)
2. For any full calendar quarter during which fuels other than eligible biomass are combusted at the CO<sub>2</sub> budget unit, as determined using the following equation:

\*[ n

$$\text{CO}_2 \text{ tons} = \sum_{j=1}^n F_j \times C_j \times O_j \times 44/12 \times 0.0005$$

j = 1]\*

\*

$$\text{CO}_2 \text{ tons} = \sum_{j=1}^n F_j \times C_j \times O_j \times \frac{44}{12} \times 0.0005$$

\*

where:

CO<sub>2</sub> tons = CO<sub>2</sub> emissions due to firing of eligible biomass for the reporting quarter;

F<sub>j</sub> = Total eligible biomass dry basis fuel input (lbs) for fuel type j, as calculated in (b) above;

C<sub>j</sub> = Carbon fraction (dry basis) for fuel type j;

O<sub>j</sub> = Oxidation factor for eligible biomass fuel type j, derived for solid fuels based on the ash content of the eligible biomass fired and the carbon content of this ash, as determined pursuant to (a)5 above; for gaseous eligible biomass fuels, a default oxidation factor of 0.995 may be used;

\*[44/12]\* \*  $\frac{44}{12}$  \* = The number of tons of carbon dioxide that are created when one ton of carbon is combusted;

0.0005 = The number of short tons that is equal to one pound;

j = Fuel type; and

n = Number of distinct fuel types.

(d) Heat input due to firing of eligible biomass for each quarter shall be determined as follows:

1. For each distinct fuel type:

$$H_j = F_j \times HHV_j$$

\*

where:

...

2. For all fuel types:

\*[  $\sum_{j=1}^n$

$$\text{Heat Input MMBtu} = \sum_{j=1}^n H_j$$

j = 1]\*

\*

$$\text{Heat Input MMBtu} = \sum_{j=1}^n H_j$$

\*

where:

...

(e) (No change from proposal.)

7:27C-8.8 Additional requirements to provide output data

(a)-(c) (No change from proposal.)

(d) A CO<sub>2</sub> budget unit that reports gross hourly MW to the Administrator shall use the same

electronic data report (EDR) gross output\*[,]\* (in MW), as it submitted to the Administrator, for the hour times operating time in the hour, added for all hours in a year.

(e)-(f) (No change from proposal.)

(g) Each CO<sub>2</sub> budget source shall submit to the Department for approval an output monitoring plan that includes a diagram and description as stated below:

1.-2. (No change from proposal.)

3. A detailed description of all quality assurance and quality control activities that will be performed to maintain the output system in accordance with \*[this subsection]\* **\*(i) below\*** ; and

4. (No change from proposal.)

(h)-(l) (No change from proposal.)

#### 7:27C-10.2 Definitions related to CO<sub>2</sub> emissions offset projects

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise.

...

“Intentional reversal” means any reversal caused by a forest owner's negligence, gross negligence, or willful intent, including\*, **but not limited to,\*** harvesting, development, and harm to the area within the offset project boundary.

...

“Project commencement” means, for an offset project involving physical construction, other work at an offset project site, or installation of equipment or materials, the date of the

beginning of such activity. For an offset project that involves the implementation of a management activity or protocol, “project commencement” means the date on which such activity is first implemented or such protocol is first utilized. For a forest offset project\*,\* “project commencement” means the date specified in section 3.2 of the forest offset protocol.

...

7:27C-10.5 CO<sub>2</sub> emissions offset project standards – landfill methane (CH<sub>4</sub>) capture and destruction

(a)-(c) (No change from proposal.)

(d) The emissions baseline shall represent the potential fugitive landfill emissions of methane (in tons of CO<sub>2</sub>e), as represented by the methane collected and metered for thermal destruction as part of the offset project, and shall be calculated as follows:

\*[Emissions (tons CO<sub>2</sub>e) = (V x M x (1-OX) x GWP)/2000 ]\*

\*

$$\text{Emissions (tons CO}_2\text{e)} = \frac{\mathbf{V \times M \times (1 - OX) \times GWP}}{\mathbf{2000}}$$

\*

where:

...

(e) Emissions reductions shall be determined based on potential fugitive methane emissions that would have occurred at the landfill if metered methane collected from the landfill for thermal destruction as part of the offset project was not collected and destroyed. CO<sub>2</sub>e emissions reductions shall be calculated as follows:

\*[Emissions Reductions (tons CO<sub>2</sub>e) = (V x M x (1 - OX) x C<sub>ef</sub> x GWP)/2000 ]\*

\*

$$\text{Emissions Reductions (tons CO}_2\text{e)} = \frac{\mathbf{V \times M \times (1 - OX) \times GWP}}{\mathbf{2000}}$$

\*

where:

...

(f) (No change from proposal.)

7:27C-10.6 CO<sub>2</sub> emissions offset project standards – sequestration of carbon due to reforestation, improved forest management, or avoided conversion

(a)-(o) (No change from proposal.)

(p) The provisions of N.J.A.C. 7:27C-10.3(d)4 and 10.4(c)1 do not apply to forest projects that have been awarded credits under a voluntary greenhouse gas reduction program. For such projects, the number of CO<sub>2</sub> offset allowances will be calculated pursuant to the requirements of this section, without regard to the quantity of credits that were awarded to the project under the voluntary program, provided that the following conditions are satisfied:

1.-2. (No change from proposal.)

3. The consistency application includes information sufficient to allow the Department to make the following determinations, and the voluntary greenhouse gas program has published information on its website to allow the Department to verify the information included in the consistency application:

i. (No change from proposal.)

ii. The project sponsor or voluntary greenhouse gas program has cancelled or retired all credits that were awarded for carbon sequestration that occurred during the time periods for which the project intends to be awarded CO<sub>2</sub> offset allowances pursuant to N.J.A.C. 7:27C-10.9, and such credits were cancelled or **\*[required]\* \*retired\*** for the sole purpose of allowing the project to be awarded CO<sub>2</sub> offset allowances pursuant to N.J.A.C. 7:27C-10.9.

#### 7:27C-11.3 Auction timing and CO<sub>2</sub> allowance submission schedule

(a) (No change from proposal.)

(b) Prior to the end of each control period, **\*the\*** initial control period, or **\*an\*** interim control period, the Department will make available for sale by auction **\*,\*** all CO<sub>2</sub> allowances held in the consumer benefit account that are designated for the allocation years associated with that control period **\*, initial control period, or interim control period\***. This will not include CO<sub>2</sub> allowances set aside to be sold directly to certified dispatch agreement facilities with fixed-price contracts pursuant to N.J.A.C. 7:27C-5.5, or CO<sub>2</sub> allowances set aside to be retired pursuant to N.J.A.C. 7:27C-5.3.

(c) In each CO<sub>2</sub> allowance auction, the Department will make available for sale CO<sub>2</sub> allowances designated for the allocation years associated with that control period **\*, interim control period,\*** or initial control period and CO<sub>2</sub> allowances designated for the allocation years associated with a future control period, in a number as determined to be appropriate by the Department, in order to ensure the availability of sufficient allowances to protect the financial stability of CO<sub>2</sub> budget sources in New Jersey.

(d)-(e) (No change from proposal.)

#### 7:27C-11.5 Auction calendar and notice

(a) A calendar of anticipated auction dates will be available on the CO<sub>2</sub> allowance auction website, \*[www.rggi.org/auctions](http://www.rggi.org/auctions)]\* \*[www.rggi.org](http://www.rggi.org)\*. The calendar will indicate the auction format and the number of allowances and allocation years of allowances to be auctioned at each auction. The calendar may periodically be revised, including the anticipated dates of future auctions, provided that the information relevant to the next scheduled CO<sub>2</sub> allowance auction will be fixed no later than 45 calendar days prior to such auction. The calendar will include the dates of at least the next four CO<sub>2</sub> allowance auctions and may also include the anticipated number of allowances to be auctioned at each future auction.

(b)-(c) (No change from proposal.)

#### 7:27C-11.7 Auction participant eligibility

(a) (No change from proposal.)

(b) For any CO<sub>2</sub> allowance auction, the following categories of parties may be eligible to participate:

1.-2. (No change from proposal.)

3. The owner or operator of a CO<sub>2</sub> budget unit located outside of New Jersey, but within those states that have final CO<sub>2</sub> \*[budget training]\* \***Budget Trading Program**\* regulatory provisions in place at the time of the CO<sub>2</sub> allowance auction and are participating states;

4.-8. (No change from proposal.)

7:27C-11.9 Submission of financial security

(a) (No change from proposal.)

(b) The Department will approve the qualified participant to participate as a bidder in the specified CO<sub>2</sub> allowance auction after the Department has approved the financial security submitted pursuant to (a) above\*[,]\*\*.\*

(c) (No change from proposal.)

7:27C-11.11 Bid submittal requirements

(a) (No change from proposal.)

(b) A bidder shall not use or employ any manipulative, misleading, or deceptive practice in connection with its prequalification application or purchase of allowances from the Department, including, but not limited to, any practice that contravenes or violates any applicable Federal or \*[State]\* **\*participating state\*** law, rules, or regulation.

(c) (No change from proposal.)

7:27C-11.12 Approval of auction results

(a) An independent monitor, such as a certified public accounting firm or similar entity\*,\* shall observe the conduct and outcome of each auction and issue a report to the Department in accordance with professional auditing standards addressing whether the auction was conducted in accordance with the rules and procedures in the respective notice of CO<sub>2</sub>

allowance auction. Upon receipt and approval by the Department of the report and upon payment in full by successful bidders, the Department shall transfer\*,\* or have transferred\*,\* the corresponding CO<sub>2</sub> allowances to each successful bidder's applicable compliance or general account.

(b)-(d) (No change from proposal.)