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Andrew J. McKeon Executive Director RGGI, Inc. 90 Church Street New York, NY 10007

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Environmental Defense Fund (EDF) appreciates the opportunity to weigh in on the latest proposed cap from RGGI Inc. and appreciates all the work undertaken by RGGI Inc. and the RGGI states to thoughtfully evaluate the best approach for accelerating the ambition of the RGGI program. The RGGI program is a vital element of the decarbonization toolbox for the northeast and mid-Atlantic region, and the third program review presents an opportunity to ensure the program maintains and builds upon the progress it has made over the last several years—and, importantly, captures the significant near-term opportunity to meaningfully accelerate abatement at incredibly low cost due to the historic federal investments in clean electricity in the Inflation Reduction Act (IRA).

The newly released exploratory cap scenario includes a welcome and important change.

• The principle of setting the RGGI system on a relatively steeper emissions decline through the early 2030s is a strong step in the right direction, as incentivizing near-term action is critical to delivering on RGGI's potential to address climate change.

However, other key elements of the scenario are a cause for concern.

- Specifically, delaying the effective date of the new cap to 2027 will leave the cap well
 above the level of BAU emissions through 2030, introducing a large volume of surplus
 allowances, reducing the incentive to achieve near-term reductions, and lowering the
 overall level of ambition of the cap.
- The ECR is removed alongside the introduction of these surplus of allowances.
- The changes to the cost containment reserve (CCR) also have the potential to add excess allowances into the system. Moreover, the low cost of higher ambition today suggests there is not a near-term affordability challenge, and it doesn't make sense to rush the evaluation of such significant changes to the CCR structure

Combined, these elements leave overall environmental ambition short of what is critically necessary despite the low cost of higher ambition.

EDF's prior comments have mapped out several steps RGGI must take to align the program with the country's broader climate goals, and RGGI Inc should keep in mind those same principles as it concludes the program review.

First, RGGI should set a cap trajectory that meets the needs of the US Nationally Determined Contribution (NDC) under the Paris Agreement. Because the power sector presents many of the easiest abatement options, emissions must fall faster in the power sector than they do in the rest of the economy. As a result, decreasing emissions 50-52% by 2030 as the US NDC requires will almost certainly mean lowering power sector emissions at least 80% by 2030.

- Second, the RGGI cap should prioritize near-term reductions to minimize cumulative
 emissions while maximizing the benefits from the IRA. Every year that fossil fuel plants
 remain online, they contribute more to the stock of greenhouse gasses in the
 atmosphere; shutting down a megawatt of gas or coal generation today is worth much
 more than shutting down that same quantity of generation in ten or fifteen years.
- Finally, RGGI should move to price emissions from imported electricity. While the
 program has and continues to provide environmental benefits despite leakage out of the
 RGGI region, pricing imported electricity will dramatically improve the overall program
 benefits

The highest priority now is for RGGI states to agree on an updated cap and avoid further delay, which would lead to more and more unnecessary allowances being issued.

EDF makes the following recommendations

- 1. To maximize the opportunity to capture near-term low-cost abatement, and to align explicitly with US climate goals, RGGI Inc should set the cap trajectory with at least an 80% emissions reduction by 2030, ideally an 85% reduction.
- 2. The cumulative emissions budget implied by the cap should be reduced. On a cumulative basis, over the period 2025-2040, the new exploratory cap is roughly equivalent to the previously modeled 0x40 cap. Modeling of considerably lower cumulative caps by EDF has shown that greater ambition can be achieved at low-cost.
- 3. The Cost Containment Reserve (CCR) should remain in its current form or otherwise be calibrated to ensure it does not add a large number of allowances from outside of the cap.
- 4. RGGI Inc should maintain the Emissions Containment Reserve (ECR) at its current trigger or higher as a backstop against allowance price crashes in periods where emissions fall well below the cap.
- 5. More time is needed to fully consider the options and implications of accommodating new members with potentially varying levels of ambition.

Recommendation #1: The RGGI cap should be aligned with at least an 80% emissions reduction from 2005 levels by 2030

Setting the cap with an interim milestone of at least 80x30 is an important signal of ambition and aligns with the US NDC and state climate goals. A cap trajectory that goes from current emission levels to at least 80x30 maximizes the incentive to take advantage of the historic opportunity to achieve low-cost emission reductions presented by the IRA.

Current policies in the 10-state RGGI region, alongside federal incentives, are projected to take emissions very close to the 80x30 level. IPM modeling shows projected 2030 emissions under the current RGGI cap would be 76% below 2005 levels and EDF's modeling using FACETS shows them at 79% below 2005. Setting the RGGI cap to at least 80x30 represents an

opportunity to lock-in these emission reductions while increasing overall ambition by reducing the cumulative emissions associated with the cap. The exploratory cap gets close but misses the mark by only being set at 76% below 2005 emissions in 2030.

Recommendation #2: Cumulative allowances under the cap should be reduced significantly.

Delays in the program review and the fact that allowance volumes tick up by 12 million tons between 2025 and 2026 as the bank adjustment expires means that the cumulative allowances being issued by RGGI between 2025-30 increases significantly.

As a result, the cap in the exploratory scenario represents significantly less ambition out to 2030 than either of the previously modeled caps (0x40 and 0x35). Over the period 2025 to 2030, when applied to a 10-state RGGI region, the 0x35 scenario represented a 30% reduction in allowances issued relative to the current cap and the 0x40 scenario represented a 23% reduction. The exploratory cap is only a 14% reduction by 2030 relative to the current cap. The low costs through 2030 in RGGI's two original modeling scenarios - and reinforced by EDF's modeling - indicate that this region can accommodate a much more ambitious reduction between 2025 and 2030. The exploratory cap should be updated to reflect that.

As the chart below illustrates, some of the ground lost between 2025 and 2030 is in fact made up by the RGGI exploratory scenario when looking further out, as the steeper trajectory continues to 2033. While this is helpful, the cumulative allowances issued to a 10-state RGGI region between 2025 and 2035 under the exploratory cap are roughly the same as they would be if the previously modeled 0x40 cap were applied to a 10-state RGGI egion (478m tons vs. 488m tons)—so the exploratory scenario doesn't gain nearly enough ground relative to the 0x40 scenario. The ambition level of the previously modeled 0x35 cap was considerably higher (366m tons). RGGI should adjust the cap level to move significantly closer to the 0x35 level of ambition.

80% reduction on 2005 EDF 80x30-95x40 -----RGGI "exploratory case cap" RGGI 0x40 RGGI 0x35

RGGI-10 - Cap options (million short tons)

In our <u>recent blog</u>, EDF advocated for a cap which represented a cut of *at least* 80x30, then took a slower rate of decline through 2040. The caps we modeled (85x30 then 95x40) and (80x30 then 95x40) fell between the 0x35 and 0x40 caps, with cumulative emissions of 424m tons and 445m tons respectively. The results showed that this level of ambition could be achieved without significant increases in allowance costs or increases to retail electricity prices. While this approach does not deliver quite the same cumulative abatement as the 0x35 scenario, an ambitious interim target enables the RGGI states to secure meaningfully greater ambition than the original 0x40 scenario by taking advantage of low-cost near-term abatement, even with a longer run-out to zero emissions in the 2030s.

When considering how to reduce cumulative emissions under the cap, RGGI should prioritize limiting the scale of surplus allowances released in the near-term. The chart below illustrates that projected emissions from the IPM modeling under the current cap and the exploratory cap are likely to be well below the cap level.

90 80 70 60 50 40 30 20 10 2020 2025 2030 2035 2040 RGGI "exploratory case cap" -Current RGGI cap - Historic *** 80% reduction on 2005 · · · · · IPM - Case A exp --- IPM - Case B flat -- - IPM - Case B exp

RGGI-10 - Cap options with projected emissions (million short tons)

Between 2025 and 2030, the allowances issued under the exploratory cap exceed those needed for compliance by 28-34%. The volume of allowances issued over this period under the exploratory cap is also 15% higher than the projected emissions under the current RGGI cap.

The high, near-term, level of surplus allowances associated with the exploratory scenario is further evidenced by the <u>collapse</u> in the price of RGGI allowances on the secondary market following the release of the most recent modeling.

There are multiple potential cap trajectories that would allow RGGI to **both**, enact a cap that sets an interim goal of at least 80x30 **and** reduce cumulative emissions relative to the 0x40 cap. Designing the program this way would help to compensate for the excess allowances created by the delayed start of the cap. The chart below illustrates two options:



Cumulative emissions 2025-35 (million short tons)



In alternative 1, the cap would begin falling relative to the current cap in 2027 at a rate consistent with achieving an 80% reduction on 2005 levels by 2030 (80x30) and continue this annual pace of emission reductions through to 2032 before reducing the rate of reductions to achieve the same 2037 emissions level as the exploratory cap (~7m tons).

In alternative 2, the cap would begin reducing relative to the current cap in 2027 at a rate consistent with achieving an 85% reduction on 2005 levels by 2030 (85x30). The rate of reductions would then slow to again achieve the same 2037 emissions level as the exploratory cap.

For both of the alternatives described above the allowances issued would be equivalent to roughly 425m tons cumulatively from 2025 to 2035. The level of allowances could be raised while preserving pre-2030 ambition by either bringing forward the year in which the annual reductions decrease to 2031 (in the case of alternative 1) or raising the level of emission reductions achieved by 2037 (in the case of alternative 2).

Recommendation #3: The CCR should not be changed to disperse a fixed quantity of allowances outside the cap

Alongside the updated cap in the exploratory scenario, RGGI also proposed changes to the CCR that include: 1) changing the quantity of allowances issued when the CCR threshold is met from a proportion of the annual budget to a fixed tranche of 11.75m tons and also, 2) adding an additional CCR threshold which could trigger the release of another 11.75m tons.

This change could have very serious implications for the environmental integrity of the RGGI program. In later years, releasing 11.75-23.5m tons worth of allowances could more than double the annual emissions cap. Under the exploratory cap, 2033 allowances would be roughly 17 million short tons. Hitting the 1st CCR trigger would increase allowances in that year by nearly 70% and hitting the 2nd trigger would be a nearly 140% increase. In this situation, the CCR would act not as an incremental adjustment to allowance prices but a flood of extra allowances in the system, seriously comprising emissions certainty.

RGGI should not make any changes to the CCR at this late stage. Such changes require a more complete vetting and could certainly be considered more systematically over time—alongside critical improvements such as moving the CCR under the cap.

Moreover, the potential combined effect of the CCR changes alongside delaying reductions to the cap until 2027 should be considered. As outlined above, the supply of allowances is likely to be well above BAU emission projections until at least 2030. As a result, the current CCR arrangements will be more than sufficient for the foreseeable future.

Recommendation #4: The ECR should be left in place

The exploratory policy scenario also removes the ECR and instead moves the price floor up to the current ECR thresholds. The ECR is an important mechanism for maximizing the potential emissions benefits of RGGI. *Particularly given the large increase in allowances that would be issued between now and 2030 under the exploratory cap, the ECR would be an important guardrail against the introduction of excessive "hot-air".*

RGGI should not remove the ECR and should instead raise the ECR threshold to mitigate some of the surplus allowances that delayed PR implementation will introduce. Emissions certainty is one of the major advantages of an emissions cap as a decarbonization tool and the ECR helps to preserve that quality in the RGGI system. Stripping away the safeguard of the ECR would create a serious risk that the program falls short of its potential in later years.

The combined effect of the delayed implementation of an updated cap, CCR changes, and ECR removal is one of reduced near-term ambition relative to previous modeling.

Recommendation #5: Mechanisms to accommodate participation by other states should be considered over a longer time period, while an ambitious cap is finalized.

EDF welcomes consideration of new states participating in RGGI or the re-integration of formerly participating states.

EDF would welcome the opportunity to engage with RGGI more substantively on these issues over the coming weeks while preserving the urgency of finalizing agreement on the emissions cap.

Conclusion

The drawn-out process of the third program review has already complicated the work of the RGGI system. The longer the review goes on, the more excess allowances build up in the program as the current cap remains in place. Those excess allowances will dilute the price signal in later years, leading to more harmful greenhouse gas emissions and associated copollutants.

Concluding the current program review and enacting an ambitious cap should be RGGI Inc's top priority. Creating a durable, ambitious cap means both setting the nominal trajectory at an appropriate level and also ensuring that mechanisms like the CCR do not lead to a de facto cap that departs majorly from the nominal cap. With deadlines for near-term and medium-term climate commitments fast approaching, and with incentives from the Inflation Reduction Act buying down the cost of clean energy, now is the time for the RGGI program to ensure its member states live up to their promises.