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Comments to the Virginia Department of Environmental Quality Air Pollution Control Board Addressing the Proposed Withdrawal of Virginia from the Regional Greenhouse Gas Initiative

Dallas Burtraw, Maya Domeshek, and Karen Palmer

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Air Pollution Control Board
Department of Environmental Quality
1111 East Main Street
Richmond, VA 23219

Dear distinguished members of the board:

On behalf of Resources for the Future (RFF), I am pleased to share the accompanying comments to the Virginia Department of Environmental Quality Air Pollution Control Board on the amendment of regulations leading to the withdrawal of the state from the Regional Greenhouse Gas Initiative (RGGI). This comment, as well as RFF's larger body of research on this subject, can be found on **the RFF website**.

RFF is an independent, nonprofit research institution in Washington, DC. Its mission is to improve environmental, energy, and natural resource decisions through impartial economic research and policy engagement. RFF is committed to being the most widely trusted source of research insights and policy solutions leading to a healthy environment and a thriving economy.

While RFF researchers are encouraged to offer their expertise to inform policy decisions, the views expressed here are those of the individual authors and may differ from those of other RFF experts, its officers, or its directors. RFF does not take positions on specific policy proposals.

These comments submitted by Dallas Burtraw, Maya Domeshek, and Karen Palmer are based on several years of technical analysis and scholarly publications in peer reviewed literature, and additional reports to state agencies and companies in the state and region. Several RFF researchers have participated in this body of research and analysis. Our comment, as well as

If you have any questions or would like additional information, please contact Dallas Burtraw (**burtraw@rff.org**).

Sincerely,

Dallas Burtraw

Dallas Burtraw, Darius Gaskins Senior Fellow

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1. Summary

The Virginia Air Pollution Control Board is considering a proposed amendment to regulations that would repeal part VII of 9VAC5-140 withdrawing the state from the Regional Greenhouse Gas Initiative (RGGI). The *Proposed Regulation Agency Background Document* (Virginia, 2022) justifies the withdrawal based on the proposition that participation in RGGI "risks contributing to the increased cost of electricity" and would harm Virginia ratepayers. Further justification points to non-transportation energy costs that are higher than the national average. Research in the scholarly literature and at Resources for the Future (RFF) identifies several reasons why this is unlikely to be the case and identifies benefits to Virginia's continued participation in RGGI.

1. Virginia's emissions goals are embodied in the 2020 Virginia Clean Energy Act (VCEA). Participation in RGGI is the lowest-cost way of achieving those goals (Shobe et al. 2021).

2. Virginia residents benefit from the difference in the cost of emissions reductions among RGGI states in the regional carbon market. If opportunities for emissions reductions in the state are less expensive than in other states, Virginia will export emissions allowances, bringing in additional proceeds that are of greater value than the cost of associated emissions reductions. In the less likely scenario that emissions reductions are relatively more expensive in Virginia, then cost savings accrue from the flexibility to achieve emissions reduction goals at less cost in other locations during the period of energy transformation in the state.

3. Auction proceeds yield revenue that is used for energy efficiency (which will lower household bills) and flood adaptation (which will lower the risk of climate change for vulnerable communities).

4. Federal policies such as the 2022 Inflation Reduction Act (IRA) and new Environmental Protection Agency regulations on emissions of criteria air pollutants and coal plant combustion residuals already support the decarbonization of the electricity sector (Roy et al. 2022). Allowance prices in RGGI and electricity prices in Virginia are likely to be lower with these policies in place than indicated in prior modeling conducted in 2019 and 2020.

5. Current high non-transportation energy costs in Virginia are a legacy of a fossil-fuel dependent history in the state—the pathway that the VCEA and participation in RGGI are intended to change. A clean energy pathway is expected to lower electricity prices. The IRA amplifies this benefit. Continued participation in RGGI will support the state to fully realize the opportunities provided by the Act.

6. Meeting the goals of the VCEA in part through participation in RGGI may have additional benefits for VA residents, including air quality and economic development.

7. RGGI provides a platform to support jurisdictional coordination in mitigating greenhouse gas emissions and related air pollution. Because Virginia's emissions are a small portion of global emissions, it is imperative to the goals of the VCEA for the state to support national and global efforts.

2. Discussion

RGGI is a multi-state emissions cap-and-trade program limiting emissions of carbon dioxide (CO_2) from electric generating units in the northeast and mid-Atlantic region. RGGI took effect in 2009 and currently involves eleven states, including Virginia. A twelfth state, Pennsylvania, has finalized regulations to join RGGI, although its participation is on hold pending review by state court.

Virginia's participation in RGGI supports achievement of the state's own energy goals reflected in 2020's VCEA, which established the state's goal of a zero-emission power sector by 2045. Prior work co-authored by RFF researchers and researchers from the University of Virginia (Shobe et al. 2021) discusses the importance of technological and regional flexibility in meeting the goals of the VCEA as a way of keeping costs low; RGGI is one way of adding flexibility.

It is important to recognize that Virginia's electricity sector operates within the regional PJM electricity market. Other RGGI states, including New Jersey, Delaware, and Maryland, are also part of PJM. Pennsylvania is also a part of PJM and RGGI but participation in RGGI is pending while under court review. Power flows between states within this large wholesale power market. Moreover, air pollution from fossil fuel combustion also flows across states borders. To realize the goals of the VCEA, it is not sufficient for Virginia to singularly reduce its own pollution. Achieving greenhouse gas and air pollution reduction goals also depends on the actions of neighboring states as air pollution and electricity cross state borders. Virginia's participation in RGGI advances the imperative of the VCEA. Virginia's withdrawal from RGGI would send a signal that negates the central role that regional cooperation plays in the implementation of the VCEA.

RGGI emissions allowances are issued in Virginia through a revenue raising auction, with the proceeds directed to strategic energy investments that strengthen the resiliency of communities vulnerable to climate change. Virginia's auction proceeds fund investments in low-income energy efficiency improvements and climate-related infrastructure in flood-prone communities. The state has raised $227 million from the auctioning of emissions allowances in the first year (2021) of its participation in RGGI (Virginia 2022).

Because electricity sales in Virginia are subject to cost-of-service regulation, the cost savings from its participation in RGGI will be enjoyed by its residents whether the state exports emissions allowances to other states or it imports allowances from them. In one case, if the marginal cost of emissions reductions in Virginia is lower than in other states, then emitters in other states will buy emissions allowances from Virginia, bringing value into the state. This scenario is most realistic because Virginia has many low-cost opportunities for emissions reductions, and the realization of those opportunities is accelerated by the VCEA. In the contrasting scenario, if the state were to import emissions allowances from other states, this would constitute a cost savings for electricity consumers relative to achieving those same emissions reductions in Virginia alone. In both cases, Virginia residents benefit from the flexibility that RGGI provides in meeting state and regional emissions goals.

Research and modeling support the conclusion that a clean energy pathway that reduces the use of fossil fuels will in turn reduce energy costs and provide savings for consumers (Roy et al. 2022; Shobe et al. 2021). This expectation is greatly amplified by the IRA, which has made substantial federal support available to accelerate the transition to clean energy. The federal resources coming to Virginia are linked directly to investment in clean energy that are incentivized by the state's participation in RGGI. Moreover, the IRA is expected to further contribute to lowering electricity prices. Research by RFF (Roy et al. 2022) finds that average national retail prices will fall by 5.7 to 7.8 percent over the next decade relative to prices at the start of the decade with implementation of the IRA. In Virginia and among other states, this will occur to a greater or lesser degree, depending on their embrace of the opportunities for clean energy development.

The VCEA is intended to drive significant investment in new infrastructure and promote direct benefits to Virginia residents through associated economic opportunities, cleaner air and water, and mitigated impacts of a warming climate, including sea level rise and increased damages in flood-prone areas.

The VCEA interacts with RGGI to provide benefits to Virginia residents. One way is through reductions in emissions of greenhouse gases. Because Virginia contributes a small share of greenhouse gas emissions globally, the state's efforts to mitigate climate change can be impactful only if the state coordinates with other jurisdictions to leverage much larger emissions reductions in the nation and across the world. This function is advanced by the state's participation in RGGI, which supports a regional transformation of the electricity sector to drive reductions in emissions of CO_2 and associated conventional air pollution. Between 2006–2008 (the period preceding RGGI's launch) and 2017–2019, greenhouse gas emissions among the nine participating states decreased by 53 percent (RGGI 2022).

The success of RGGI has inspired efforts in other jurisdictions, including the Western Climate Initiative. By 2022, the number of carbon pricing programs—primarily through carbon markets but also through carbon taxes—has proliferated globally to cover 23 percent of emissions (World Bank 2023). Virginia's participation in RGGI supports the requisite amplification of actions by individual jurisdictions that is necessary to realize ambitions embodied in the VCEA.

In summary, the withdrawal of Virginia from RGGI would erode the direct benefits to Virginia residents that are a focus of the VCEA, would raise electricity prices over the decade, and would undermine the implementation of the VCEA.

3. References

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