

February 9, 2018

Andrew McKeon, Executive Director
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RE: Joint Stakeholder Comments Regarding Virginia's Potential Participation in the RGGI Market

Dear Mr. McKeon and Members of the RGGI Board:

Thank you for the opportunity to provide comments regarding Virginia's potential participation in the RGGI market. As set forth in prior comments of the Joint Stakeholders,¹ our groups support the expansion of RGGI's carbon market to other states subject to appropriate conditions. As discussed below, standards should be established to ensure consistent program design, avoid market distortions, provide benefits to consumers and environmental justice communities, and preserve RGGI's high standards of environmental performance, including continued progress in cutting power sector carbon pollution as the RGGI states recently committed to achieve.

The most straightforward way to expand RGGI would be for new states to adopt the RGGI model rule, enabling their full participation in RGGI. Legislation has been proposed in Virginia that would enable that state to do so.² However, we also believe that the RGGI states should pursue linking the RGGI market with compatible carbon trading markets established by other jurisdictions, including potentially Virginia, if they are unable to fully adopt the RGGI model rule, but nevertheless establish compatible and comparably stringent programs that, if linked with RGGI, could provide significant regional benefits.

As explained below, for a state to join or link with the RGGI market, we believe it is critical that the RGGI states require the state to establish an emissions baseline and trajectory that is comparably stringent to the existing RGGI program. Based on technical analysis and Virginia's clean energy potential, we believe a comparably stringent program in Virginia would (1) include a 2020 baseline in the range of 30 – 32 million short tons, with Virginia ideally adopting a baseline at the lower end of that range; and (2) a cap reduction trajectory that parallels that of the RGGI states between 2020 and 2030, with the clear expectation of continued emission reductions beyond 2030 consistent with future reductions adopted by the RGGI states.

Benefits and Risks of Expanding the RGGI Market to Include New States

Larger emissions markets have the potential to produce greater climate benefits while creating more flexibility, expanding opportunities for cost-effective emissions reductions, and

¹ Joint Stakeholders comments dated Dec. 4, 2015; May 9, 2016; and July 11, 2017.

² <https://governor.virginia.gov/newsroom/newsarticle?articleId=22095>.

raising greater amounts of revenue for reinvestment in consumer and clean energy programs. Uniform market rules across a wider region would also facilitate efficient planning and investment decisions. Incorporating new states into RGGI or linking with compatible carbon markets in adjacent states in PJM could also help to reduce the potential for emissions leakage outside of the RGGI region. Incorporating Virginia into the RGGI market would demonstrate the RGGI states' leadership and prove up the RGGI states' original vision of building a model for reducing greenhouse gas emissions from the power sector that could be exported to other states.

If precautions are not taken, however, expanding to new states could undermine the environmental goals of RGGI without creating sufficient offsetting benefits. We believe these risks can be avoided and mitigated, but it is critical that the RGGI states ensure the environmental performance of the expanded program.

Conditions under which Expanding the RGGI Market is Appropriate

As our groups have previously outlined,³ at a minimum, a state looking to participate in the RGGI market should be required to adopt a program – either the RGGI Model Rule or a similar, compatible state program – that covers both existing as well as new sources⁴; is comparably stringent in its emissions baseline, trajectory, and goals to the existing RGGI program; and includes other key program elements necessary to ensure the smooth operation of the joint market, including establishing a minimum reserve price consistent with the RGGI program.⁵

To the extent that a state does not fully adopt the RGGI Model Rule, we also strongly urge the RGGI states to encourage prospective trading partners to adopt other program elements that have contributed to the success and benefits of the program, including auctioning allowances and investing the majority of auction proceeds in energy efficiency and other consumer benefit programs, which help maximize RGGI's benefits and minimize its costs.

Virginia's proposed power plant carbon rule would establish a consignment auction for allowances, which could provide similar benefits to the RGGI states' allowance auctions, while proposed legislation in the state would allow Virginia to auction allowances directly in the same way current RGGI states do. We have also strongly encouraged Virginia to ensure that revenues from allowance auctions are dedicated to consumer benefit programs, especially energy efficiency, which independent analysis shows provides the greatest economic benefit, while also making compliance with the RGGI cap easier to achieve.⁶

³ Joint Stakeholders Dec. 4, 2015 Cmts at 10-11.

⁴ Virginia is proposing to include both existing and new sources in its regulations. 9VAC5-140-6040.A (applicability); 9VAC5-140-6020 (defining "CO2 budget unit" and "CO2 budget source").

⁵ Virginia has proposed a minimum reserve price that mirrors that of the updated RGGI Model Rule. 9VAC5-140-6020.C.

⁶ Analysis Group (2015), *The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States: Review of RGGI's Second Three-Year Compliance Period (2012-2014)*, available at http://www.analysisgroup.com/uploadedfiles/content/insights/publishing/analysis_group_rggi_report_july_2015.pdf; see also RGGI, Inc., *Investments of Proceeds*, available at <https://www.rggi.org/investments/proceeds-investments>.

Specific Considerations Related to Comparable Stringency

In our December 4, 2015 comments, we urged the RGGI states to pursue expansion opportunities with other states' programs that are comparably stringent. In the context of Virginia's potential participation in the RGGI market, comparable program stringency would mean: (1) the use of realistic assumptions about the state's emissions trajectory and near-term emissions reductions that are already expected or readily achievable in order to develop an appropriate baseline emission level for the year 2020; and (2) the adoption of a cap trajectory from 2020 through 2030 that mirrors the cap trajectory adopted by the RGGI states during the 2016 program review, with a clear expectation that emissions will continue to be reduced beyond 2030 consistent with future reductions adopted by the RGGI states.

Based on our analysis, and consistent with the principles above, an appropriate baseline emissions level for Virginia would be in the range of 30 – 32 million short tons CO₂ in 2020, with Virginia ideally adopting a baseline at the lower end of that range. This 2020 baseline is consistent with recent IPM modeling of Virginia that projected power sector CO₂ emissions of 30 – 32 million tons in 2020, with the lower end of that range encompassing scenarios in which Virginia links with RGGI.⁷ Given ongoing and observed power sector developments and clean energy opportunities in Virginia, we believe this 30 – 32 million ton range is eminently reasonable, and that Virginia should ideally adopt a baseline at the lower end of this range. In particular, we highlight three such developments and opportunities: (i) fossil fuel retirements; (ii) energy efficiency potential; and (iii) additions of zero carbon renewables.

(i) Fossil fuel retirements

Virginia's 2020 baseline should account for all planned and anticipated fossil fuel retirements between now and 2020. In its 2017 Integrated Resource Plan (IRP), Dominion discussed the timing of a number of potential fossil fuel plant retirements.⁸ Subsequent to the filing of the 2017 IRP on January 16, 2018, Dominion moved forward with a number of retirements by filing with PJM deactivation requests for nine fossil fuel units: Possum Point 3 & 4, Bellemeade, Bremono 3 & 4, Mecklenberg 1 & 2, and Chesterfield 3 & 4, with requested deactivation dates between April 16 and December 1, 2018.⁹ This is on top of the previously planned retirement of Yorktown 1 & 2 in March of 2018.¹⁰ In total, the nine units have a combined nameplate capacity of over 1,700 MW and emitted around 2.4 million short tons of CO₂ in 2016, or 7 percent of the state's reported power emissions.¹¹ In addition, the merchant plants Spruance and Edgecombe Genco have also notified PJM of their intent to retire in 2019

⁷ This 2020 baseline range includes emissions from biomass generation—approximately 2 million tons of CO₂ per year—in Virginia. See NRDC, Comments on VA DEQ's Proposed Carbon Regulation (July 20, 2017), available at <http://www.deq.virginia.gov/Portals/0/DEQ/Air/GHG/c17-nrdc.pdf?ver=2017-08-01-103908-317>.

⁸ See, e.g., Virginia Electric and Power Company's Report of Its Integrated Resource Plan, Case No. PUR-2017-00051 (May 1, 2017), at 142.

⁹ See PJM List of Future Deactivation Requests (updated Feb. 2, 2018), available at <http://www.pjm.com/-/media/planning/gen-retire/pending-deactivation-requests.ashx?la=en>.

¹⁰ See *id.*

¹¹ See *id.*; Emissions data reflects 2016 unit-level reported emissions from S&P Market Intelligence (*subscription required*) as reported to the U.S. EPA Continuous Emissions Monitoring System (CEMS).

and 2020, respectively.¹² Combined, this merchant capacity reflects another 300 MW of capacity and 1 million tons of annual CO₂ emissions.¹³ These announced retirements must be incorporated into calculation of the 2020 baseline.

(ii) Energy efficiency potential

Virginia's baseline should also account for the Commonwealth's significant untapped energy efficiency potential and incorporate savings that can reasonably be achieved between now and 2020. The American Council for an Energy Efficient Economy (ACEEE) ranked Virginia 29th in its most recent State Energy Efficiency Scorecard, placing Virginia well behind all of the RGGI states, which ranked 1st (Massachusetts); 3rd (Rhode Island); 4th (Vermont); 6th (Connecticut); 7th (New York); 10th (Maryland); 13th (Maine); 21st (New Hampshire); and 24th (Delaware).¹⁴ Indeed, Virginia's ranking was entirely driven by progress in state government, buildings, and transportation; for utility energy efficiency offerings, Virginia scored zero out of 20 points.¹⁵ ACEEE estimates that the state only achieved energy savings reflecting 0.10 percent of retail sales. Top-performers in the northeast have achieved upwards of 3 percent and the median in the U.S. is 0.67 percent.¹⁶

Benchmarking analysis by Ceres likewise highlighted how far behind its peers Virginia's primary utility, Dominion, is lagging in its energy efficiency offerings. Ceres conducted a benchmarking analysis in 2016 of 30 holding companies representing 119 electric utility subsidiaries and accounting for nearly 60 percent of total U.S. electric industry sales in 2014.¹⁷ On incremental energy efficiency as a percentage of retail sales Dominion ranked last, achieving 0.1 percent annual energy savings as compared to a mean of approximately 1.0 percent and nearly 1.9 percent savings for the leading utility, Eversource Energy.¹⁸ The utilities operating in the RGGI region all achieved significantly greater incremental energy savings than Dominion: Eversource (1.87%), National Grid (1.59%), Exelon (1.42%), FirstEnergy (0.91%), Berkshire Hathaway (0.92%), PSEG (0.71%), ConEd (0.38%).¹⁹ Dominion also ranked last in life cycle energy efficiency savings as a percentage of retail sales,²⁰ achieving only 1.5 percent, as compared to a mean of approximately 10 percent and over 20 percent for the leading utility, Eversource Energy.²¹ Again, Dominion lagged far behind its counterparts in the RGGI region:

¹² See PJM List of Future Deactivation Requests (updated Feb. 2, 2018), available at <http://www.pjm.com/-/media/planning/gen-retire/pending-deactivation-requests.ashx?la=en>.

¹³ See *id.*; Emissions data reflects 2016 unit-level reported emissions from S&P Market Intelligence (*subscription required*) as reported to the U.S. EPA Continuous Emissions Monitoring System (CEMS).

¹⁴ ACEEE State Energy Efficiency Scorecard, <http://aceee.org/state-policy/scorecard>.

¹⁵ See ACEEE State and Local Policy Database: Virginia, <https://database.aceee.org/state/virginia>.

¹⁶ ACEEE State Energy Efficiency Scorecard, <http://aceee.org/state-policy/scorecard>.

¹⁷ Ceres, Benchmarking Utility Clean Energy Deployment: 2016: Ranking 30 of the Largest U.S. Investor-Owned Electric Utilities on Renewable Energy & Energy Efficiency (June 2016), at 4.

¹⁸ *Id.* at 21, Fig. 11

¹⁹ *Id.*

²⁰ Life cycle energy efficiency savings are those from all energy efficiency programs put in place during the reporting year, including reporting year savings and all future anticipated savings.

²¹ *Id.* at 23, Fig. 21.

Eversource (20.20%), National Grid (17.74%), Exelon (16.17%), Berkshire Hathaway (10.05%), First Energy (8.81%), PSEG (7.16%), ConEdison (6.30%).²²

Virginia is already taking steps to address its deficient progress on energy efficiency. Last month, bills were introduced in the Virginia House and Senate that would modify how the Commonwealth considers cost-effectiveness in determining whether energy efficiency programs are in the public interest.²³ If enacted, energy efficiency programs in Virginia would be deemed in the public interest if net present value benefits exceed costs under any three of the following cost tests: total resource cost test; utility cost test; participant cost test; and ratepayer impact measure, effectively eliminating Virginia's current reliance on the highly restrictive ratepayer impact measure. This legislation, coupled with the extreme paucity of progress to date, creates a substantial near-term opportunity to increase energy savings from energy efficiency measures. Dominion is presently on track to meet only 19.8 percent of its 2020 energy savings goal in 2032.²⁴ A recent report by the Applied Economics Clinic found that, even ramping up to low levels of energy efficiency would enable Virginia to achieve its 10 percent energy savings goal by 2020.²⁵ In establishing a 2020 emissions baseline for Virginia that ensures comparable stringency to the existing RGGI states, it is important that the baseline incorporate robust assumptions regarding this significant near-term potential to increase energy savings in Virginia between 2018 and 2020.

(iii) Additions of zero carbon renewables

Additionally, the baseline should fully incorporate all planned renewable energy developments in Virginia. Notably, solar generation is rapidly increasing in Virginia. According to the Virginia Solar Energy Development and Energy Storage Authority Annual Report there are presently 219 MW of solar installed in the Commonwealth and an additional 2,703 MW under development.²⁶ The PJM queue identifies eight solar projects with a combined nameplate capacity of 717 MW with projected in-service dates between the fourth quarter of 2018 and the fourth quarter of 2020 that would interconnect in Virginia.²⁷ And Dominion in its 2017 IRP announced plans to develop 5.2 GW of solar in the coming years,²⁸ including 240 MW of solar in 2019 and an additional 240 MW of solar in 2020 under all 2017 Alternative Plans.²⁹ These developments must be fully accounted for in developing the baseline.³⁰

²² *Id.*

²³ SB 855; HB 1261.

²⁴ Pre-filed Testimony of David R. Eichenlaub, Deputy Director, State Corporation Commission Division of Public Utility Regulation, PUR-2017-00051 (Aug. 25, 2017), at 18-19.

²⁵ Applied Economics Clinic, Missed Opportunities for Efficiency in Virginia (Feb. 1, 2018), at 1, available at <http://consumersunion.org/wp-content/uploads/2018/02/Missed-Opportunities-for-EE-in-VA-Report-Final.pdf>.

²⁶ Virginia Solar Energy Development and Energy Storage Authority Annual Report (Nov. 28, 2017), Appendix C.

²⁷ PJM Generation Queue:Active, <http://www.pjm.com/planning/generation-interconnection/generation-queue-active.aspx>.

²⁸ Dominion Virginia Power Plan Sees More Clean Energy (May 2, 2017),

<http://dominionenergy.mediaroom.com/2017-05-01-Dominion-Virginia-Power-Plan-Sees-More-Clean-Energy>.

²⁹ Dominion 2017 IRP at 13, Fig. 1.4.2.

³⁰ Pending legislation in Virginia would further add 5,000 MW of renewable wind and solar energy while tripling energy efficiency investments in the Commonwealth through 2028. These potential increases in zero emissions resources have also not yet been fully incorporated into modeling runs, and would support an even lower baseline

Finally, it bears note that while a starting cap level of 30 – 32 million tons in Virginia reflects reasonable assumptions about the state’s emissions trajectory through 2020, independent of any effort to join RGGI, a cap level in this range would also potentially address concerns that a higher 2020 cap level for Virginia, in the range of 33 – 34 million tons, could result in emissions increases elsewhere in the RGGI region.³¹

IPM modeling shows that Virginia’s power sector is already on track to achieve CO₂ emissions in the range of 30 – 32 million tons in 2020,³² with the lower end of that range encompassing projected scenarios in which Virginia links with RGGI. And this modeling did not fully reflect the recent slew of announced fossil retirements or the untapped energy efficiency and renewable energy potential in the state, which will continue to reduce emissions in the Commonwealth. Therefore, a reasonable 2020 baseline for Virginia consistent with RGGI’s environmental stringency would be in the 30 – 32 million ton range, with Virginia ideally adopting a baseline at the lower end of this range.

Environmental Justice Considerations

The Joint Stakeholders continue to support processes and outcomes that will ensure RGGI provides benefits to environmental justice communities. All states looking to participate in the RGGI market should affirm their support for, and carry out, an open and transparent process for adopting necessary program regulations, including making efforts to incorporate input from communities impacted by power plant pollution. We also continue to urge the current RGGI states and prospective new states to incorporate equity analysis into decision-making processes, RGGI revenue spending plans, and program assessments to ensure equitable outcomes.

With respect to Virginia specifically and consistent with the principle above and earlier comments, we hope the Virginia Department of Mines, Minerals and Energy (DMME) will indicate support for using its portion of auction revenues to protect communities most directly burdened by air pollution from power plants. Strategic investments of RGGI revenues by DMME could ensure that Virginia’s power sector emissions cap provides specific benefits to these communities as well as to the Commonwealth and region as a whole.

Under Virginia’s proposed rule, the Commonwealth’s State Corporation Commission (SCC) would also oversee how proceeds from consignment auctions are used, and we encourage the RGGI states to share their experiences with the SCC on how investments in energy efficiency and other consumer benefit programs have maximized RGGI’s benefits and minimized its costs, including through programs designed to assist and provide benefits to low-income households.

emissions cap for Virginia in 2020. *See* Governor Northam Statement on Rate Freeze Repeal Legislation (press release) (Feb. 5, 2018), available at <https://governor.virginia.gov/newsroom/newsarticle?articleId=25402>.

³¹ For example, ICF modeling projected that, in 2031, emissions in the current RGGI states could be 3 million tons higher after linking with Virginia compared to a scenario in which RGGI does not link with Virginia. Starting the 2020 cap at a range 1 – 4 million tons lower than Virginia has currently proposed in its power sector rule (i.e., 30 – 32 million tons rather than 33 – 34 million tons) could help offset the 3 million ton increase in emissions in the RGGI states projected by ICF.

³² *See* NRDC, Comments on VA DEQ’s Proposed Carbon Regulation (July 20, 2017), at 7-12, *supra* note 7.

Respectfully submitted:

Acadia Center
Conservation Law Foundation
Environment America
Environment Virginia
Environmental Advocates of New York
Natural Resources Defense Council
Pace Energy & Climate Center
Sierra Club
Union of Concerned Scientists