

AMC Comments on RGGI Third Program Review

Submitted to: info@rggi.org

The Appalachian Mountain Club (AMC) appreciates the opportunity to comment on the Regional Greenhouse Gas Initiative (RGGI) Third Program Review. We strongly support this ongoing successful program that has achieved important progress on reducing our region's Greenhouse Gas (GHG) emissions and investing in energy efficiency and renewable energy projects. We are pleased that Pennsylvania, New Jersey, North Carolina, and Virginia have joined the program and expanded the impact of greenhouse gas reductions regionally.

The AMC's mission is to foster the protection, enjoyment, and understanding of the outdoors. We envision a world where our natural resources are healthy, loved, and always protected, and where the outdoors occupies a place of central importance in every person's life. Addressing climate pollution and its impacts is a focus of AMC's near and long-term conservation work, and we believe action is paramount to the preservation of the outdoors for future generations.

Climate altering pollution is already impacting many aspects of our lives, from coastal sea level rise, to increased frequency of extreme storms, to lower winter snowpack. Our region is warming faster and experiencing more extreme events – heavy precipitation and intense storms – than the rest of the nation. Maximum daily rainfall in the Northeast has increased 27% from 1901 to 2016¹. AMC's recent published climate research has demonstrated the highest peak in the Northeast, Mountain Washington, NH is experiencing warmer spring and fall seasons (Murray et al. 2021²). These findings align with the recent International Panel on Climate Change (IPCC) report that warming is accelerating (comparing the past 50 years to 100-year records) and even the coldest sites that could serve as climate change refugia are now experiencing warming. Murray et al. (2021) also found that the Pinkham Notch Visitor Center's 88- year snow record reveals that the snowpack is disappearing at a rate of 1.7 days earlier per

¹ <https://science2017.globalchange.gov/chapter/7/>

² Murray et al. 2021. <https://www.eaglehill.us/NENAonline/articles/NENA-sp-11/14-Murray.shtml>



decade (or 15 days earlier over the period of record). Our research has also shown that winters have changed across New England where we expect cold and snowy winters– but also that when we don’t get the weather we expect “winter weather whiplash” events cause outsized impacts on our human systems.³ We are already witness to significant economic impacts to recreation due to climate change like intense rainfall events washing out trails and bridges. Climate change will continue to extend the summer and shoulder seasons which will increase trail use, requiring more human resources and services. More frequent and more extreme storms are making it harder to keep up with trail maintenance and are driving a shift in strategy toward building and rerouting trails capable of withstanding intense wind and rain events, an effort that itself takes significant resources.

As of 2017 RGGI has resulted in net benefit of \$4.7 billion to the RGGI states and more than 40,000 job-years.⁴ Across the RGGI region we have seen more than a 40% decrease in carbon pollution while electricity prices have declined since the program began. Limiting GHG emissions through this regional market-based approach is an effective strategy for mitigating climate change, and by states collaborating in RGGI they benefit collectively as well as move each participating jurisdiction towards meeting individual [state Climate Action Plans](#).

The co-benefits of addressing power plant emissions and investing in energy efficiency and cleaner energy generation will also improve the lives of people across the region. For example, the Commonwealth of Pennsylvania has struggled to improve ambient air quality in some regions: based on 2019 monitoring data, three southeast PA counties saw exceedances of the 2015 ozone health standard. Pennsylvania DEP modeling predicts that joining RGGI will result in cumulative emission reductions of 112,000 tons of NO_x and approximately 67,000 tons of SO₂ over a decade⁵, which will prevent premature deaths and hospital visits from respiratory illnesses producing \$6.3 billion in health care savings and 30,000 fewer hospital visits for

³ Casson, N.J., et al., 2019. Winter weather whiplash: impacts of meteorological events misaligned with natural and human systems in seasonally snow-covered regions. *Earth’s Future*, 7(12): 1434-1450. DOI: 10.1029/2019EF001224

⁴https://www.analysisgroup.com/uploadedfiles/content/insights/publishing/2018_hibbard_tierney_darling_cullin_an_expanding_carbon_cap_and_trade_regime.pdf

⁵ http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/RGGI/PA_RGGI_Modeling_Report.pdf



respiratory illnesses like asthma among children and adults. There will also be 45,000 fewer asthma attacks and a 1,000 fewer cases of childhood bronchitis⁶.

Some of our most vulnerable communities in the Eastern U.S. will greatly benefit from reducing precursors and direct emissions of fine particulate matter (PM_{2.5}). A recent study from Perera et al. (2020) looked at the impacts of changes in ambient PM_{2.5} concentrations on health end points for children such as low birth weight (TLBW) and incidence of asthma. The study found that not only did RGGI states avoid cases of these negative health effects but the program benefited neighboring states as well, including Pennsylvania (Table 1).

Table 1. Number of estimated avoided cases by health end point in RGGI and neighboring states (2009–2014). Table 3 from: Perera, F., Cooley, D. Berberian, A., Mills, D., and Kinney, P. 2020. Co-Benefits to Children’s Health of the U.S. Regional Greenhouse Gas Initiative EHP Vol. 128, No. 7 <https://doi.org/10.1289/EHP6706>

Health end point	RGGI states	Neighboring states	Total
PTB	58	54	112
TLBW	29	27	56
ASD	50	48	98
Asthma	274	263	537

Note: RGGI states include Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Adjacent non-RGGI states include Pennsylvania, the District of Columbia, New Jersey, Virginia, and West Virginia. ASD, autism spectrum disorder; PTB, preterm birth; RGGI, U.S. Regional Greenhouse Gas Initiative; TLBW, term low birth weight.

While the RGGI program is expected to continue to result in improved air quality and make progress on reducing GHG emissions there is more that needs to be done. The recent IPCC report identifies the urgent need for action to reduce the emissions of GHGs and thus the impacts of climate change in the future. Significant reductions are called for. AMC strongly supports the Biden Administration’s commitment to achieving a net-zero economy no later than 2050, in line with IPCC findings that this level of reductions are needed to stabilize the

⁶ <http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/RGGI/PA%20RGGI%20Health%20Benefits.xlsx>



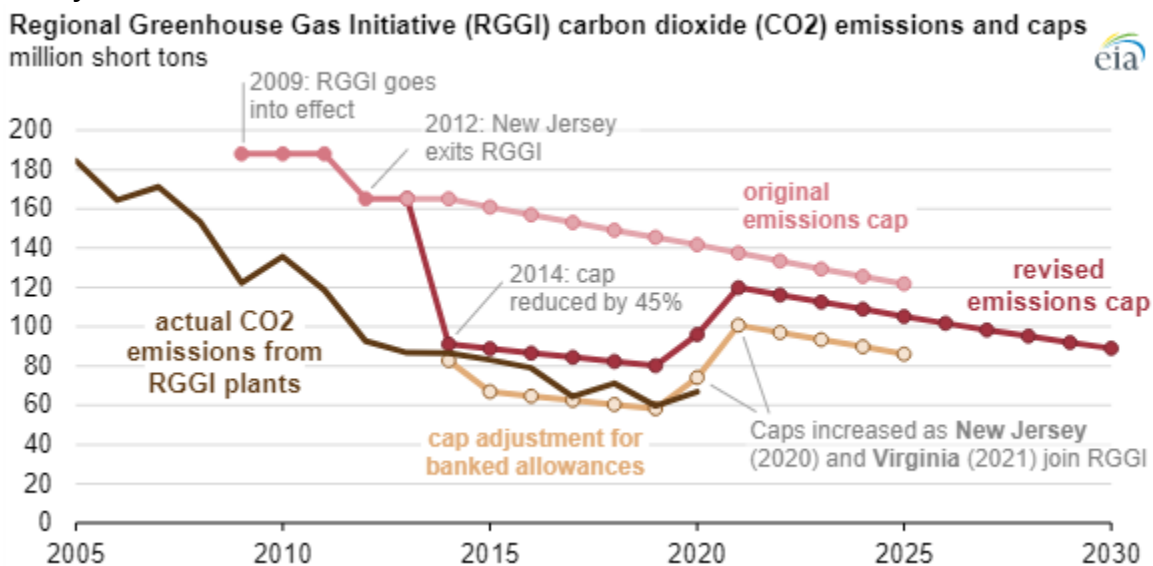
climate. Initial steps towards this goal include cutting U.S. GHG emissions 50-52% below 2005 levels in 2030 and reaching a 100% carbon pollution-free power sector by 2035.

Below we provide detailed comments on the program review for your considerations:

RGGI states should adjust the current/adjusted cap downward to reflect actual emissions

The RGGI cap is the sum of the CO₂ allowance budgets established by the RGGI states and currently, the RGGI cap declines by 3.655 million tons each year through 2030 and is held steady thereafter. In 2020 actual emissions were below both the cap of 96.2 million metric tons allowance and the adjusted cap (adjusted for banked allowances), indicating a downward adjustment is both feasible and sensible (Figure 1). For 2021, the RGGI states will raise the cap to 119 million CO₂ allowances with the adjusted cap being 100.6 million allowances which accounts for Virginia joining the program. RGGI states should evaluate 2021 actual emissions with this added jurisdiction to ensure that the current cap and adjusted cap are not inflated, which could weaken the trading markets.

Figure 1. Actual emissions have been below caps, suggesting that future caps can and should be adjusted downward. Source: EIA.





RGGI states can fine tune current auction and market mechanisms to ensure the most reductions by 2030

The RGGI cap in 2030 has been approximated by RGGI states to be 86.9 million tons. This level is already inflated due to banked allowances. Further, as RGGI states point out this cap has the potential to change depending on the market and response of the built-in program flexibility mechanism. The release of Cost Containment Reserve allowances or the awarding of offset allowances could result in a higher cap in 2030 while withholding Emissions Containment Reserve allowances could lower the cap. These flexibility mechanisms remain important components but could be adjusted to ensure a more aggressive cap could be met. Banked surplus allowances remaining in 2025 should be retired. Considering the need to reduce CO₂ emission drastically to reduce climate impacts and to achieve the Administration's goal of a carbon free power sector by 2035, RGGI states should consider ways they can reduce the cap before 2030 and ensure that the cap is not increased.

RGGI Sources

We agree with the Partnership for Policy Integrity (PFPI) and others that bioenergy be included in RGGI sources instead of assuming that burning wood fuels contributes zero carbon emissions. Carbon sequestration by forests should be a priority, and leaving wood burning units out of this program creates a condition that could encourage larger scale bioenergy generation and remove carbon sequestering capacity while unnecessarily putting more carbon in the atmosphere. Smaller fossil burning facilities, <25 MW should also be included moving forward. If we are to achieve the science-based goals of carbon free power sector these real emitters cannot be left unregulated.

RGGI states should commit no less than 50% of revenues in environmental justice communities and develop Equity Advisory Boards.



RGGI states should commit at least 50% of the revenue to invest in environmental justice communities and low-income families that have experienced disproportionate pollution from power plants. RGGI states can continue to lead the region and nation in developing a program by ensuring that each state has an Equity and Environmental Justice Advisory Board that is comprised of members from underserved populations and communities overburdened by pollution from across the state. This Advisory Board should actively participate in the program's implementation and inform investment decisions.

Where possible states should do even more to address inequities. A recent proposal in Massachusetts developed for the Transportation Climate Initiative Program seeks 70% of revenues to benefit overburdened and underserved communities. While RGGI states have invested auction proceeds in programs that provide targeted assistance to underserved and low-income communities, moving forward the decision-making process should include community members.

New and expanded air quality monitoring should be established in communities identified as overburdened by power plant air pollution. Monitoring should include, but not be limited to, criteria pollutants, black carbon, and ultrafine particulate matter. Installation and operation of air monitors should be done expeditiously to establish baseline air quality in air pollution hotspots. RGGI states should establish air pollution reduction targets to ensure progress is made to improve air quality for overburdened communities. Finally, data should be publicly available.

RGGI states must retain the current Offsets categories, criteria, and limits

The AMC believes RGGI must retain the 2017 Model rule offset categories and criteria of being real, additional, verifiable, enforceable, and permanent. Restricting a source to use offset allowances to meet up to 3.3% of its CO₂ compliance obligation is important to ensure the bulk of reductions are from direct emission sources.



In conclusion, we are pleased that the RGGI program has continued to successfully reduce GHG emissions in the region and that these program reviews provide the states and stakeholders the opportunity to evaluate its progress and participate in a dialog of its evolution. It is imperative that RGGI states do make this process accessible to all stakeholders and that facilitation of environmental justice communities' participation is emphasized.

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