

August 12, 2016

Board of Directors
RGGI Inc.,
90 Church St., Fourth Floor
New York, NY 10007

Dear RGGI Board,

As health professionals dedicated to safeguarding and improving public health, we write to acknowledge the leadership of the RGGI states in reducing carbon emissions from the electricity sector and thereby also reducing the crippling health burden of air pollution for the citizens of the Northeast. We also greatly appreciate this opportunity to comment for the 2016 Program Review.

We are doctors, nurses, medical researchers, and other health professionals, and we see the health consequences of air pollution from electricity generation every day: millions of people in the RGGI states are impacted by epidemic asthma and increased respiratory illness, heart attack, and stroke¹, and shockingly, every year air pollution prematurely claims the lives of thousands of citizens across the Northeast². The climate change caused by carbon emissions is already upon us, and the health consequences of climate change are sobering, as documented in this year's extensive report from the U.S. Global Change Research Project³.

Reducing carbon emissions through RGGI is a win all around: it reduces the rate of climate change, returns economy-boosting dollars to the states, and improves the health of millions of Americans by clearing the air of toxic co-pollutants such as sulfur and nitrogen oxides (SO_x and NO_x), ozone and particulate matter (PM₁₀ and PM_{2.5}).

When we reduce carbon emissions in the electric sector hazardous air pollution declines. School children with asthma can return to school and study to become the productive citizens we need for the future; after school they can play safely and participate in sports outside without fear of an asthma attack. Workers stay healthy, on the job, and productive, earning the wages they need to support their families. Elders are healthier and live longer, with more time to help their adult children and enjoy their grandchildren. Taxpayers save billions on health costs of pollution related disease. For example, a recent study valued the health benefits for Maryland of avoiding emissions from fossil fuels to be \$0.41-\$1.01/kWh⁴. So many health and social co-benefits accrue from the environmental imperative to reduce carbon emissions in order to control climate change.

We congratulate each of the RGGI states for adopting aggressive greenhouse gas reduction goals to combat climate change – a 35-45 percent reduction in carbon emissions by 2030, and a 75-90 percent reduction by 2050. These admirable goals are essential targets that we must meet to avoid allowing Earth's temperature to increase more than 2°C by 2100, which scientists agree is required to forestall severe environmental collapse that could threaten the planet as we know it.

It is now time to choose a plan for RGGI that will propel us toward these important goals; they cannot be met unless you set adequate program policy now. Scientists now agree that there is very little time left to debate how to control climate change. We already have the information needed to be confident that an aggressive cap reduction in the RGGI program can be achieved and will produce economic benefits for the RGGI states, so why delay?

RGGI's success has been very lucrative to the states, producing benefits to consumers while reducing electricity demand and supporting clean renewable energy. However, the funds from auctioning allowances are only a small part of the economic bonus that the RGGI states receive for reducing emissions. Air pollution is so deadly that the monetized health co-benefits of reducing carbon emissions are enormous, to say nothing of the indirect economic benefits of keeping students in school and workers on the job (ref. 5, Appendix A).

A recent paper in Nature Climate Change⁶ quantifies the health and economic benefits that will accrue from the changes that the electric sector must make to limit global temperature rise to 2°C. These required emissions reductions are roughly equal to an annual cap reduction in RGGI of 5 percent

⁵. If all states reduced carbon emissions by this amount, we would see dramatic health benefits nationwide: 29,000 fewer asthma attacks requiring emergency room visits in children under 18, and 15,000,000 fewer missed work days. In addition, emissions reductions of this magnitude will lower PM_{2.5} enough to prevent 22,000 premature deaths each year, while another 4,000 deaths are prevented each year by ozone reductions. The annual monetized benefits of these improvements to health are estimated at \$250 billion nationwide. Given the population density of the RGGI states, a large fraction of these benefits will accrue here.

Even the most conservative economic models show that the benefits of the emissions reductions required to meet the goals of the RGGI states are 5-10 times the costs of implementation. Simply put, RGGI is the most cost-effective way to reduce emissions from the electric sector and to make the future healthier for citizens in the RGGI states.

To avoid a painful future for our children and grandchildren, we urge you to:

- a) Adopt an annual cap reduction of 5 percent to meet the 2030 emissions goals adopted by RGGI states,

- b) Implement a cap correction to account for the excessive quantity of banked allowances, and
- c) Restructure or remove the Cost Containment Reserve to ensure that emissions reduction targets align with the cap.

We are relying upon you to choose a plan that will adequately control climate change and improve public health. With your actions, everyone in the RGGI states can breathe easier for many years to come.

Thank you very much,

Names and addresses of signatories are on the following pages

1 Fann, n. et al. 2009. The influence of location, source and emission type in estimates of the human health benefits of reducing a ton of air pollution. *Air Qual. Atmos. Health*, 2, 176.
<http://dx.doi.org10.1007/s11869-009-0044-0>.

2 Caiazzo, F. et al (2013) Air pollution and early deaths in the United States. Part I: Quantifying the impact of major sectors in 2005. *Atmos. Env.* 79, 198-208.

3 US Global Change Research Project. 2016. The impacts of climate change on human health in the US: A scientific assessment. 332 pp. <https://health2016.globalchange.gov/>

4 Machol, B and S. Rizk. 2013. Economic value of US fossil fuel electricity impacts. *Environment International* 52, 75-80. Doi: 10.1016/j.envint.2012.03.003

5 Stanton, E.A et al. 2016. The RGGI Opportunity 2.0. Synapse Energy Economics, Cambridge MA.
http://www.synapseenergy.com/sites/default/files/RGGI_Opportunity_2.0.pdf

6 Shindell, DT, Y Lee and G. Faluvegi. 2016. Climate and health impacts of U.S. emissions reductions consistent with 2oC. *Nature Climate Change*, 6, 503-509.

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