



August 20, 2021

Independent Regulatory Review Commission
333 Market St., 14th Floor
Harrisburg, PA 17101
[via email to irrchelp@irrc.state.pa.us]

RE: Regulation #7-559: CO2 Budget Trading Program

Dear Commissioners,

It is my understanding that, in reviewing the above regulation, you will be asked to consider if there is a need for the regulation and whether the specific proposal was based on “acceptable data.” In an attempt to influence these decisions, a climate change denial organization known as the “CO2 Coalition” has provided comments that wildly misrepresent the scientific consensus on the growing climate crisis.

In a letter¹ to IRRC, the coalition’s director, Gregory Wrightstone, makes the following inaccurate claims:

“The administration’s predictions of floods, droughts, heat waves, pollution risks, destructive sea-level rise and agricultural damage are contradicted by historical data and what science and common sense suggests for the future.”

“The administration overestimates future carbon dioxide emissions and atmospheric warming because more than 99 percent of its climate models are flawed and because its assumptions for coal use likely exceed what is even possible..”

The administration's predictions are drawn largely from the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), produced in 2014 (AR5). Contrary to Mr. Wrightstone’s claims, actual observations and continued modeling since the AR5 report *increase* our confidence that the predicted events will occur without immediate action to reduce our emissions of greenhouse gases. The recently published sixth IPCC assessment report (AR6), in fact, [directly connects the dots](#)² between human-caused climate change and the dramatic increase in extreme weather disasters we have witnessed in the U.S. and around the world. They warn of far greater damage in the absence of concerted climate action.

ICF and the Pennsylvania State University further reviewed the AR5 findings along with other recent results in preparing an updated Climate Change Impacts Assessment in May, 2021. They concluded with high confidence that Pennsylvania will face the predicted harms without immediate action.

Mr. Wrightstone’s claims about so-called “flawed” climate models are equally wrong. Decades of data show that climate models [have accurately forecasted changes in global temperatures](#)³.

¹ Letter of Gregory Wrightstone, Ex. Dir. Co2 Coalition, July 29, 2021

² Mann, M.E., 'Widespread and Severe.' The Climate Crisis Is Here, But There's Still Time to Limit the Damage, *Time Magazine*, Aug 9, 2021.

³ “Even 50-year-old climate models correctly predicted global warming” by Warren Cornwall, *Science*, Dec 4, 2019.

In fact, to the extent the models have exhibited any bias, the tendency has been to underestimate the actual impact of human-caused emissions of greenhouse gases. For example, the models have underestimated the rate of ice sheet collapse and sea level rise. My own research⁴ has demonstrated that climate models are under-estimating the impact climate change is already having on devastating weather extremes such as the unprecedented rainfall we saw in our state during summer 2018.

Avoiding the worst effects of climate change is going to take a fundamental change in how we obtain and use energy. Achieving this will involve both direct regulation of polluters at the supply side and demand-side measures that encourage investment in cleaner alternatives. Putting a price on greenhouse gases is a key strategy in this regard.

The ability for fossil-fuel generation and other industries to dump waste products into the atmosphere at no charge has been characterized as “the greatest market subsidy ever.”⁵ That is a subsidy for which the citizens of Pennsylvania are already paying a high price in public health and environmental harm and those damages will only increase without immediate action. Pennsylvania’s Proposed CO2 Budget Trading Rule is a step in the right direction and I urge you to approve the rule.

Sincerely,

A handwritten signature in cursive script that reads "Michael E. Mann".

Michael E. Mann
Distinguished Professor
Director, Earth System Science Center (ESSC)

⁴ Mann, M.E., Rahmstorf, S., Kornhuber, K., Steinman, B.A., Miller, S.K., Coumou, D., Projected changes in persistent extreme summer weather events: The role of quasi-resonant amplification, *Science Advances*, 4:eaat3272, 2018.

⁵ Bill McKibben: “Actions Speak Louder Than Words”, *Bulletin of the Atomic Scientists* 68, no. 2. (2012): 1-8