

60 French Creek Drive  
Rochester, NY 14618

April 13, 2021

*via electronic mail*

Senator Kevin Parker  
Senator Todd Kaminsky  
Legislative Office Building  
Albany, NY 12247

Re: *Senate Bill S4264A*  
*The Climate and Community Investment Act (CCIA)*

Dear Senator Parker and Senator Kaminsky,

Thank you very much for the opportunity to present this testimony today.

The State of New York took a bold, visionary step in passing the Climate Leadership and Community Protection Act (CLCPA). The CLCPA commits the state to the aggressive action to reduce our greenhouse gas emissions that is required by our time. It also expresses the intent to accomplish climate action in a just way, ensuring that the communities at the front lines of the climate crisis are helped and not harmed, and receive their fair share of the community benefits provided under the legislation. However, the CLCPA left the strategic framework for accomplishing these aims incomplete in important ways:

- It failed to provide the dedicated funding required to achieve a just transition to a green economy based on renewable energy, or the safeguards required to ensure that funding is reserved for this purpose.
- It failed to establish the state government organizational entities required to effectively implement the programs realizing the transition.

The CCIA fills these gaps, thereby ensuring that the state's commitments under the CLCPA can and will be fulfilled.

The principal objective of this testimony will be to illuminate certain aspects of the CCIA that may seem obscure on a first reading.

The CCIA's *carbon pollution fee* is the component of the bill that provides the bulk of the funding for its programs. It applies the *polluter pays principle*, the principle long established in environmental law that "those who produce pollution should bear the costs of managing it to prevent damage to human health or the environment."<sup>1</sup> It applies a fee to fossil fuels and fossil fuel-derived energy produced or used within the state based on the amount of greenhouse gas emissions generated in producing and using the fuel or energy. The fee is collected from the vendors, importers, and in-state producers of fossil fuels and fossil fuel-derived energy. It starts at a value of 55 dollars per short ton of carbon dioxide-equivalent emissions<sup>2</sup> in 2022, thereafter increasing each year, reflecting the compounding impact of future years' emissions on top of those of preceding years.

Over the years from 2023 to 2051, the rate by which the fee increases is determined by an adjustment mechanism designed to ensure that the state meets its emission reduction targets specified by the CLCPA.<sup>3</sup> The design of the

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<sup>1</sup>Bob Ward and Naomi Hicks (2012), What is the 'polluter pays' principle?, The Guardian. Available at: <http://www.theguardian.com/environment/2012/jul/02/polluter-pays-climate-change> (Accessed: 12 April 2021).

<sup>2</sup>i.e., emissions of greenhouse gases having an effect on global warming equivalent to that of a short ton (2000 pounds) of CO<sub>2</sub> over a 20-year period.

<sup>3</sup>The fee is also adjusted for inflation; the fee adjustment mechanisms described here affect the fee amount measured in constant (inflation-adjusted) dollars.

adjustment mechanism reflects the understanding that the world has a limited *carbon budget*,<sup>4</sup> a threshold amount of cumulative greenhouse gas emissions that must not be exceeded in order to ensure that global temperatures increase by no more than two degrees Celsius, and preferably by no more than 1.5 °C.<sup>5</sup>

To indicate the state’s degree of progress in meeting the emissions reduction targets of the CLCPA, the CCIA specifies a target schedule for emissions reductions, as shown in Figure 1.<sup>6</sup> In so doing, the bill also specifies a schedule of target limits for *cumulative* greenhouse gas emissions relative to New York State’s carbon budget, as shown in Figure 2.<sup>7</sup> These limits on *cumulative* emissions are intended to ensure that the state’s ‘carbon budget’ is not exceeded even if year-by-year emission reductions are persistently smaller than intended but by only a modest amount in each year.

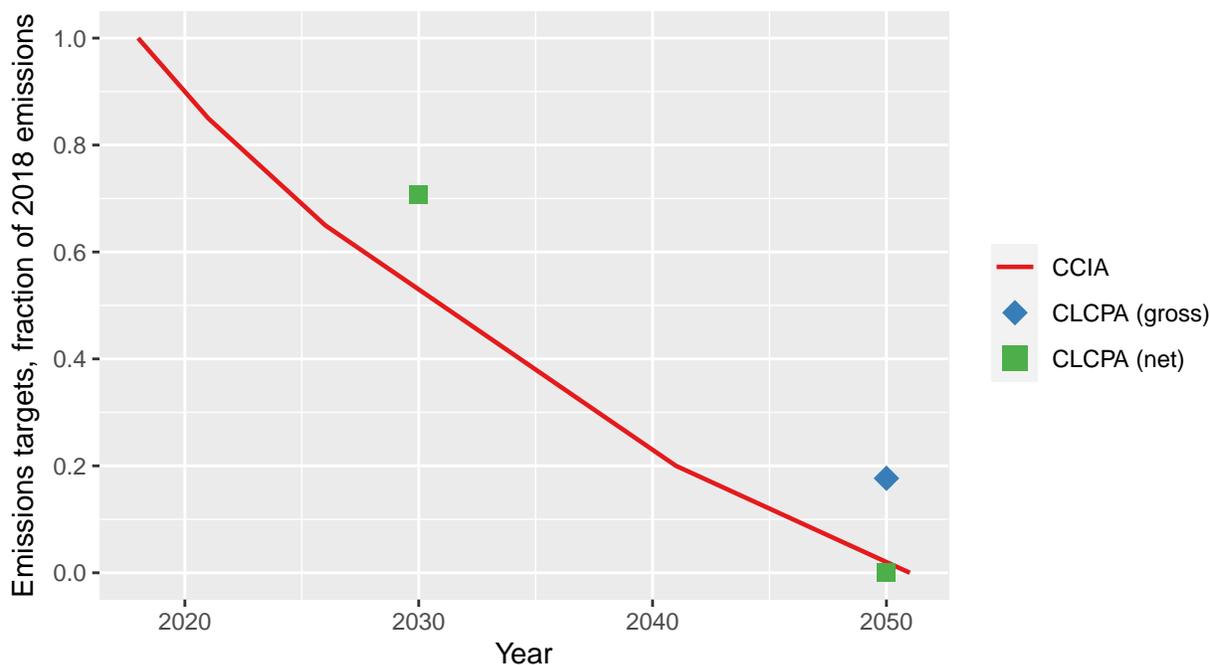


Figure 1. CCIA target schedule and CLCPA targets

In simple terms, the amount of the carbon fee is increased each year by a greater amount (seven or ten percent) if the state is falling behind its emissions reduction target schedule, by a smaller amount (two percent) if emissions reductions are significantly ahead of schedule, or by the nominal amount (five percent) if emissions reductions are on schedule. If the state isn’t meeting its emissions reduction targets, it seems only reasonable that the fee should increase more rapidly, placing fossil fuels at a further competitive disadvantage and increasing the revenue available to fund energy efficiency and renewable energy programs. The full details of the adjustment process are spelled out in the unavoidably dense legal language of ARTICLE 42 § 3041; Table 1 provides a useful summary.

<sup>4</sup>Friedlingstein, Pierre, Michael O’Sullivan, Matthew W. Jones, Robbie M. Andrew, Judith Hauck, Are Olsen, Glen P. Peters, et al. “Global Carbon Budget 2020.” *Earth System Science Data* 12, no. 4 (December 11, 2020): 3269–3340. <https://doi.org/10.5194/essd-12-3269-2020>.

<sup>5</sup>Masson-Delmotte, Valerie. “IPCC, 2018: Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty.” Intergovernmental Panel on Climate Change, 2019. [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15\\_Full\\_Report\\_High\\_Res.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf).

<sup>6</sup>defined in the bill at (§ 9.) ARTICLE 42 § 3041.4.

<sup>7</sup>assuming 2018 emissions of 200 million metric tons CO<sub>2</sub>-equivalent; NYS DEC and NYSERDA haven’t yet released official estimates.

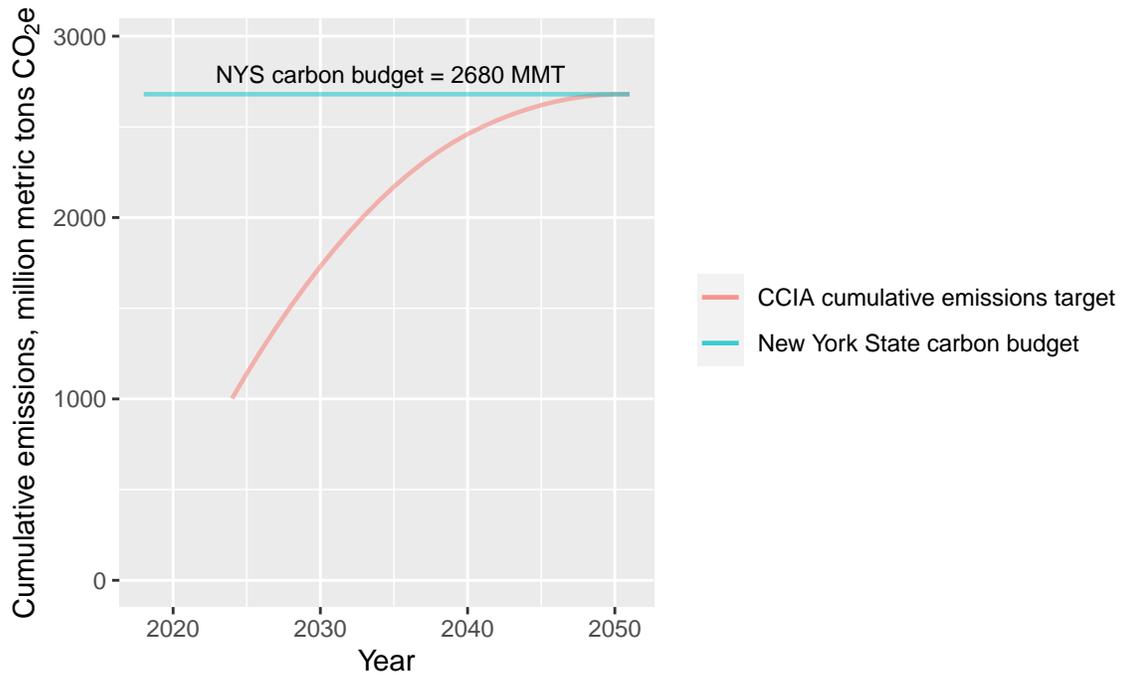


Figure 2. CCIA target schedule of cumulative emissions starting in 2019

Table 1. Carbon pollution fee adjustment schedule

Years	Five-year environmental integrity metric	Cumulative environmental integrity metric	Carbon pollution fee increases (constant dollars) by	CCIA para
2023 to 2025	NA	NA	+5%	ARTICLE 42 §3041.1.(b)(i)
2026 to 2031	< -5%	NA	+2%	§3041.1.(c), 3041.1.(c)(i)(A)
	≥ -5% and < 5%	NA	+5%	§3041.1.(c)(i)(B)
	≥ 5% and < 10%	NA	+7%	§3041.1.(c)(i)(C)
	≥ 10%	NA	+10%	§3041.1.(c)(i)(D)
2032 to 2051	< -5%	< -1%	+2%	§3041.1.(d), 3041.1.(d)(i)(A)
	≥ -5% and < 5%	< 2%	+5%	§3041.1.(d)(i)(B)I.
	< 5%	≥ -1% and < 2%	+5%	§3041.1.(d)(i)(B)II.
	≥ 5% and < 10%	< 3%	+7%	§3041.1.(d)(i)(C)I.
	< 10%	≥ 2% and < 3%	+7%	§3041.1.(d)(i)(C)II.
	≥ 10%	NA	+10%	§3041.1.(d)(i)(D)I.
	NA	≥ 3%	+10%	§3041.1.(d)(i)(D)II.

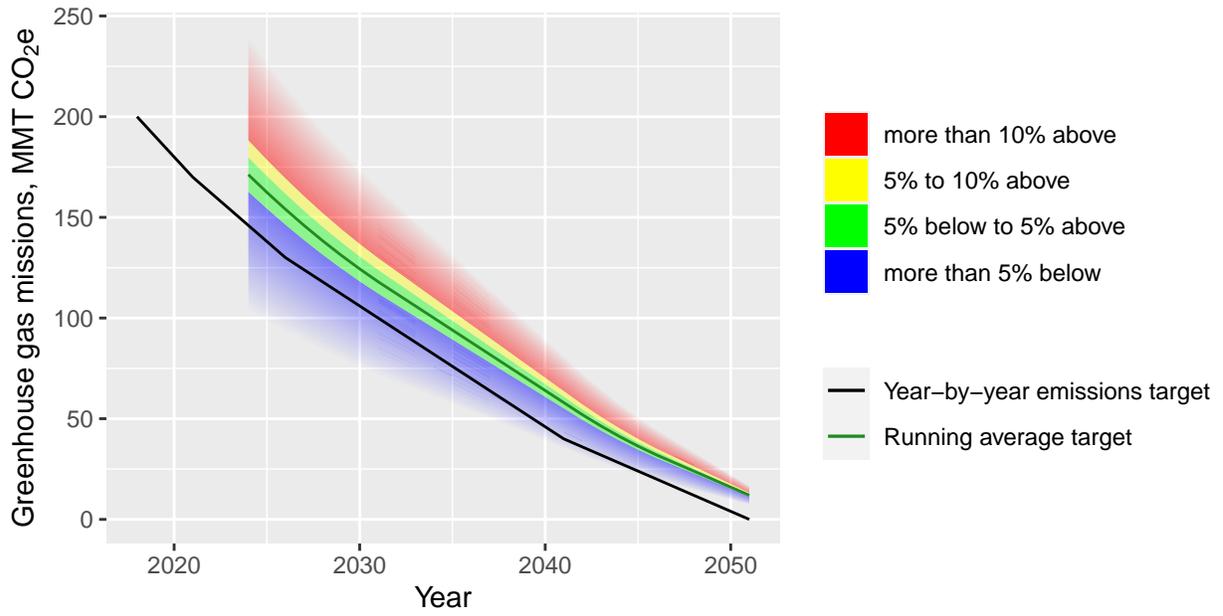


Figure 3. CCIA emissions target schedule with performance zones

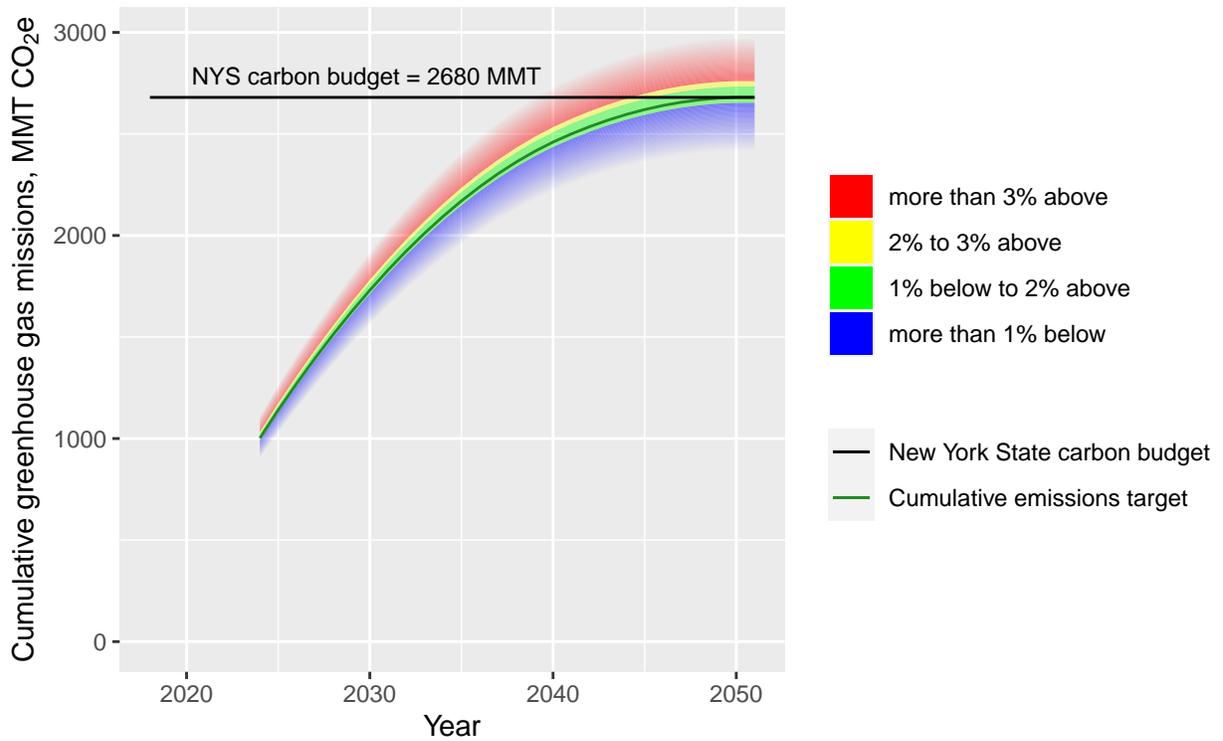


Figure 4. CCIA target schedule for cumulative emissions with performance zones

The *five-year environmental integrity metric* measures the state’s performance in reducing greenhouse gas emissions year by year; it is based on a running average of the preceding five years’ emissions so as not to be overly perturbed by short-term macroeconomic fluctuations. Figure 3 illustrates its significance: the color-coded ‘performance zones’ in the figure correspond to rows in Table 1. Since emissions are decreasing over time, the five-year moving average calculated in each year is larger than the current year’s emissions target. The blue zone represents greater-than-anticipated emissions reductions, while yellow and red represent less-than-anticipated reductions. The mechanism as a whole is designed to keep the state’s greenhouse gas emissions in the green zone, diminishing steadily toward the goal of net-zero emissions in 2050.

Figure 4 provides an analogous visualization of the *cumulative environmental integrity metric*. The green zone of acceptable progress is relatively quite narrow, as befits the difficulty (or hopelessness) of recovering from a cumulative emissions overshoot.

The adjustment mechanism described here adds appreciable complexity to the CCIA, but yields significant benefits as well. By fine-tuning the carbon fee based on feedback from past performance, it addresses an often-cited liability of carbon pricing mechanisms: that they fail to ensure emissions reductions on a predictable schedule.<sup>8</sup>

Another key difference between the CCIA’s carbon pollution fee and other carbon pricing proposals is the use of the revenue raised. While many such proposals return the revenue in its entirety as rebates, the CCIA devotes thirty percent of the revenue to rebates specifically targeted to low- and moderate-income households, while using the remainder for targeted investments in such areas as transportation and energy infrastructure, community-based energy efficiency and beneficial electrification programs, and transition assistance for workers and communities affected by the decline of fossil fuel industries. The thirty percent allocated to rebates suffices to protect low- and moderate-income households from financial adversity due to increased energy costs. At the same time, the bill’s targeted investments accelerate the development of low-cost alternatives to fossil fuels, providing direct benefits to low- and moderate-income families given new access to healthier and less expensive household energy.<sup>9</sup> The bill’s green economy investments and labor provisions will create 150,000 good new jobs over the coming ten years, supporting families with a decent standard of living and raising wages for workers who have been too often left behind.

The CCIA is the climate legislation New York needs at this pivotal moment, to fulfill the promise of the CLCPA and pave the way for a green recovery in which all New Yorkers can share. Please give it your energetic support.

Thank you again for the opportunity to provide this testimony.

Sincerely yours,



Eric Koski  
Rochester NY March for Science  
Orebed Analytics LLC

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<sup>8</sup>Marc Hafstead, Susanne Brooks, Nathaniel Keohane, and Wesley Look. “Carbon Tax Adjustment Mechanisms (TAMs): How They Work and Lessons from Modeling.” Resources for the Future, Environmental Defense Fund, August 7, 2020. [https://www.rff.org/documents/2562/IB\\_20-08\\_TAM.pdf](https://www.rff.org/documents/2562/IB_20-08_TAM.pdf).

<sup>9</sup>Voters intuitively understand this, which is why carbon pricing proposals funding renewable energy investment consistently poll more favorably than those targeting rebates.