

INDEPENDENT INTERVENOR EXHIBIT 1
CLCPA EFFECT ON GLOBAL WARMING

No Practical Effect of CLCPA on Global Warming

Even if CLCPA was to fully achieve its sustainability objectives, the New York emissions reductions possible are negligible relative to global emissions and the resulting global temperature change is infinitesimally small.

If New York were able to eliminate all its GHG emissions, the effect of global emission increases elsewhere would supplant our efforts in one year. New York GHG emissions¹ are less than one half of one percent of global emissions and global emissions have been increasing on average by more than one half of one percent per year since 1990.

Furthermore, as shown below, New York's impact on global warming is unmeasurable. Funding the CLCPA goals included in the Con Ed rate case will have no impact on global warming.

Calculation of GHG Impacts on Global Warming

The evaluation of the effect of New York and Con Ed GHG emissions on global warming is consistent with the Environmental Protection Agency (EPA) under the Biden Administration. EPA used the FaIR model² in the regulatory impact analysis for the "Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review". In this analysis, the EPA used FaIR to: "Project

¹ <https://pragmaticenvironmentalistofnewyork.blog/2024/02/27/update-climate-act-emission-reductions-in-context/>

² <https://pragmaticenvironmentalistofnewyork.wordpress.com/wp-content/uploads/2025/06/epas-use-of-the-fair-model-for-greenhouse-gas-emi-1.pdf>

global mean surface temperature changes resulting from baseline emissions scenarios and policy scenarios with reduced methane emissions from the oil and gas sector.”

The Finite Amplitude Impulse Response (FaIR) model³ is a reduced-complexity climate model that converts emissions of greenhouse gases and short-lived climate forcers to atmospheric concentrations, radiative forcing, and ultimately global temperature anomalies⁴.

Transient Climate Response to Cumulative Emissions (TCRE)

The FaIR model provides specific quantitative estimates for the temperature response to carbon dioxide emissions through the Transient Climate Response to Cumulative CO₂ Emissions (TCRE) metric⁵. The constrained estimates from FaIR v1.3 show a median TCRE of **1.40 K per 1000 GtC** (gigatons of carbon), with a 5-95% credible interval ranging from 0.96 to 2.23 K per 1000 GtC.

Converting to Per-Ton Basis

When converted to more practical units for policy analysis, these values translate to:

- **Per metric ton of CO₂:** Approximately 3.82×10^{-13} K per metric ton
- **Per million metric tons of CO₂:** Approximately 3.82×10^{-7} K (0.38 microkelvin)
- **Per billion metric tons of CO₂:** Approximately 3.82×10^{-4} K (0.38 millikelvin)

In 2022 the Open Data total New York State GHG emissions⁶ were 371.4 million metric tons. If those emissions were reduced to zero, the FaIR model projects that the impact on global warming would be 0.00014 degrees C less warming.

³ <https://pragmaticenvironmentalistofnewyork.wordpress.com/wp-content/uploads/2025/06/temperature-change-per-ton-of-ghg-emissions-using-1.pdf>

⁴ <https://homepages.sec.leeds.ac.uk/~mencsm/fair.htm>

⁵ <https://gmd.copernicus.org/articles/11/2273/2018/gmd-11-2273-2018.pdf>

⁶ https://data.ny.gov/Energy-Environment/Statewide-Greenhouse-Gas-Emissions-Beginning-1990/5i6e-asw6/about_data

Table 1 lists Con Ed GHG emissions from Exhibit ___ (SCLCPAP-1) Page 18 of 119 and calculates the projected effect on global warming. In 2023, total Con Ed CO2e emissions were 19.6 million tons. If the total Con Ed emissions were reduced to zero then the FaIR model projects that the impact on global warming would be 0.0000075 degrees C less warm. Emission reductions from CLCPA programs in the rate case that produce a fraction of total emissions will have a reduced projected impact on global warming.

Table 1: Historical Con Ed Emissions (Metric Tons CO2e) and Projected Effect on Global Warming (deg. C)

Con Ed GHG Emissions Exhibit ___ (SCLCPAP-1) Page 18 of 119								
Year	Steam	Electric	CH4	SF6	Imported Natural Gas	Natural Gas End User Combustion	Total	Impact on Global Warming deg C
2005	2,035,949	1,474,335	1,170,130	1,491,947	5,772,226	6,229,575	18,174,162	6.94E-06
2006	1,338,970	1,726,344	1,151,765	1,088,672	5,927,707	5,716,606	16,950,064	6.47E-06
2007	1,590,162	1,759,380	1,139,284	766,410	7,310,210	6,555,802	19,121,248	7.30E-06
2008	1,402,356	1,741,887	1,115,885	471,966	7,350,182	6,560,055	18,642,331	7.12E-06
2009	1,431,579	1,505,432	1,091,090	319,523	6,951,142	6,638,834	17,937,600	6.85E-06
2010	1,195,481	2,006,939	1,078,592	189,259	7,144,235	6,590,036	18,204,542	6.95E-06
2011	1,123,133	1,682,888	1,063,764	141,488	7,425,603	6,858,481	18,295,357	6.99E-06
2012	848,578	1,874,314	1,047,909	137,263	7,688,063	6,188,378	17,784,505	6.79E-06
2013	911,084	1,921,770	886,110	130,943	7,705,491	7,391,331	18,946,729	7.24E-06
2014	1,001,176	1,637,501	859,621	126,223	8,401,179	8,231,910	20,257,610	7.74E-06
2015	901,469	1,755,303	841,823	100,668	8,413,668	8,313,454	20,326,385	7.76E-06
2016	754,796	1,853,773	812,983	81,824	8,299,783	8,148,559	19,951,718	7.62E-06
2017	703,011	1,860,020	788,079	63,622	7,979,050	8,606,776	20,000,558	7.64E-06
2018	856,144	1,798,134	759,756	57,129	8,540,531	9,681,461	21,693,155	8.29E-06
2019	787,125	1,711,918	724,298	63,598	8,125,246	9,528,473	20,940,658	8.00E-06
2020	493,402	1,880,734	696,209	48,993	7,557,296	8,697,144	19,373,778	7.40E-06
2021	555,261	1,907,117	663,158	45,944	7,755,186	8,735,311	19,661,977	7.51E-06
2022	713,785	1,829,834	632,173	46,373	8,118,843	8,851,566	20,192,574	7.71E-06
2023	519,426	1,882,268	615,580	37,102	8,110,368	8,407,223	19,571,967	7.48E-06