



# Nuclear New York

Independent Advocates for Reliable Carbon-Free Energy

A project of Community Studies of New York, Inc, a 501(c)3 non-profit organization

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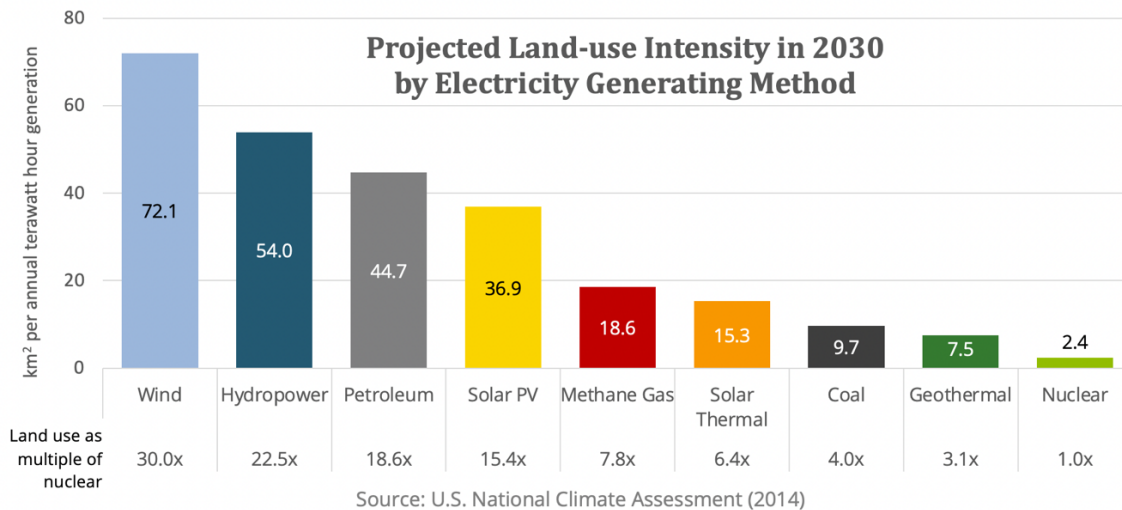
Sarah Crowell, Chair  
Land Use and Local Government Advisory Panel  
New York Climate Action Council

Dear Sarah Crowell and the Land Use and Local Govt Advisory Panel,

Thank you for all your hard work advancing New York towards the goals of Climate Leadership and Community Protection Act (CLCPA). With our lands already affected by climate change, the Land Use Panel has to critically evaluate the impacts of our energy policy decisions. We are concerned that a heavy reliance on land-intensive sources will encroach on our arable lands and natural reserves, risk legal and political backlash, and could lead to New York failing the state's climate and energy goals.

The recent report prepared for New York Independent Systems Operator (NYISO)<sup>1</sup> outlines New York's need for 163 gigawatts (GW) of carbon-free generation and storage facilities in place within 19 years. By comparison, the total generation and storage capacity of New York in 2020 was less than 42 GW (including behind-the-meter solar). This massive increase is due to a heavy reliance on intermittent resources (wind, solar).

As staunch advocates for clean energy, Nuclear New York insists that the state consider all energy resources based on their ecological, human health, and climate impacts. Land use is directly proportional to the ecological impact of energy generation. We implore the Climate Action Council to carefully consider the following chart from the U.S. National Climate Assessment (NCA)<sup>2</sup>:



<sup>1</sup> Analysis Group, *Climate Change Impact Resiliency Study – Phase II: An Assessment of Climate Change Impacts on Power System Reliability in New York State*, September 2020

<https://www.nyiso.com/documents/20142/16884550/NYISO-Climate-Impact-Study-Phase-2-Report.pdf>

<sup>2</sup> U.S. National Climate Assessment, *Energy, Water, and Land Use*, 2014

<https://nca2014.globalchange.gov/report/sectors/energy-water-and-land>



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The above chart estimates both the footprint of the power plant as well as land affected by energy extraction. The projected land use incorporates expected advances in all technologies until 2030. Nuclear leaves, by far, the most space for nature. The state's favored energy sources wind and solar take up 30x and 15x the land area of nuclear. While geothermal is attractive, high-quality hydronic geothermal resources are not abundant in New York. Hydropower is largely tapped out.

A large-scale renewable deployment must take into consideration exactly how much space it would take up, and how such can be deployed without trampling on our forests, grasslands, and agricultural lands.

The NCA goes on to state: "Energy production, land use, and water resources are linked in increasingly complex ways. In some parts of the country, electric utilities and energy companies compete with farmers and ranchers, other industries, and municipalities for water rights and availability, which are also constrained by interstate and international commitments."

In all the pathways identified by the Intergovernmental Panel on Climate Change (IPCC) that limit global warming to 1.5 °C require nuclear energy to remain steady or expand by up to 5x the 2010 level.<sup>3</sup>

Indian Point is an example of how effective nuclear is as an environmental tool. This one power plant with a land footprint of 239 acres (0.4 mi<sup>2</sup>) generated 81% downstate New York's carbon-free electricity, or ¼ of all of downstate electricity. To produce the same output with onshore wind would require an area of 465 mi<sup>2</sup> – or 1.5x the landmass of New York City. Given the rising opposition to large-scale renewable deployment in New York<sup>4</sup>, it is incumbent upon the Climate Action Council to evaluate all technologies on their merits, not only what is popular or convenient at the moment.

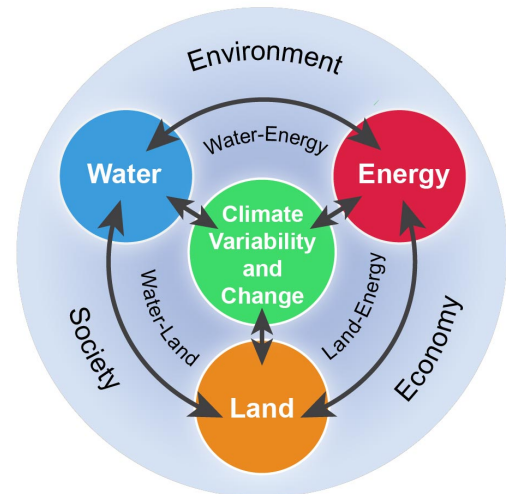
Nuclear energy is a powerful proven technology with a demonstrable history of scaling up fast enough to counter climate change.<sup>5</sup> Nuclear can be deployed alongside renewable energy to meet the state's clean energy goals. This would allow us to preserve the most nature for future generations.

Thank you again for all of your diligence.

Respectfully submitted,

Nuclear New York

Energy, Water, Land, and Climate Interactions



<sup>3</sup> IPCC, *Global Warming of 1.5 °C*, 2018 <https://www.ipcc.ch/sr15/chapter/spm/spm-c/spm3b/>

<sup>4</sup> New York League of Conservation Voters Education Fund, *Breaking Down the Barriers to Siting Renewable Energy in New York*, 2019 <https://nylc.org/press-item/nylcvef-releases-background-paper-on-breaking-down-the-barriers-to-siting-renewable-energy-in-new-york/>

<sup>5</sup> Cao, et al., *China-U.S. cooperation to advance nuclear power*, 2016, <https://science.sciencemag.org/content/353/6299/547>