

Dear Representatives of the New York State Energy Research and Development Agency (NYSERDA),

We are the Columbia University Nuclear is Clean Energy Club (NiCE), a pro-environment and pro-nuclear coalition of students across Columbia schools and disciplines. We are so grateful to NYSERDA for taking these steps to explore the future of nuclear energy in New York's carbon-free energy mix and ensuring the best possible actions for its people and the planet.

Given that all land-use brings trade offs, we believe our energy grid should have as minimal an environmental impact as possible. Nuclear is incredibly resource-efficient, requiring far fewer materials than other sources, having a land footprint 1/63rd the size of solar.¹ Adding nuclear to New York's energy mix will allow for further land and ecosystem conservation, prioritizing New York's biodiversity while providing recreational opportunities for residents. Additionally, nuclear infrastructure provides many high-paying local union jobs due to the regulatory and safety requirements of a plant. The construction of a traditional nuclear plant alone can provide 9,000 jobs (Vogtle plant), and it retains a day-to-day employment of 500-800 employees per reactor.²

For example, the nuclear energy industry in the Southeast, encompassing Georgia, North Carolina, South Carolina, Tennessee, and Virginia, generates an impressive annual economic impact of \$42.9 billion, supporting 152,598 jobs and generating \$13.7 billion in labor income. The nuclear sector significantly contributes to state and local economies, with \$3.7 billion in annual tax revenues across the five-state region. The average employment multiplier effect across the five-state region is 2.8, meaning for every ten jobs directly created by the nuclear industry, an additional 18 jobs are generated elsewhere³.

New York is highly unlikely to meet its 2030 commitments to 70% renewable energy electricity generation, sitting at just 30% as of 2023, according to New York State Independent System Operator (NYISO).⁴ However, the energy-density of nuclear power makes us hopeful that, with significant investment in innovative nuclear facilities, we can truly provide for our growing electricity demand with 100% carbon-free power by 2040, per the state's goals. Nuclear energy will also contribute to energy independence by strengthening our geopolitical positioning without sacrificing the health of local communities and our planet.

Small modular reactors (SMRs) have lower capital costs, faster construction, flexible deployment, and enhanced safety features compared to traditional nuclear plants which can help us get to net-zero. Furthermore, technologies such as SMRs offer further safety improvements, rooted in passive safety features, smaller risk of community impact in case of an accident, and no reliance on external power. This is building on the fact that the likelihood of a traditional nuclear plant having a significant meltdown is extremely low at 0.0001%.⁵

¹ <https://ourworldindata.org/land-use-per-energy-source>

² <https://www.reuters.com/business/energy/finding-workforce-may-be-nuclears-largest-challenge-2022-10-03/>

³ <https://www.usnic.org/news/new-study-reveals-remarkable-economic-impact-of-nuclear-industry-in-south-east-united-states>

⁴ <https://www.documentcloud.org/documents/24794202-clcpa-report2024>

⁵ https://www.iaea.org/sites/default/files/publications/magazines/bulletin/bull16-1/161_202007277.pdf

Nuclear power is one of the world's safest forms of energy but there is an unfortunate gap between the truth and public perception. Per terawatt-hour of electricity produced, coal and natural gas have resulted in 24.62 and 2.82 deaths, respectively, while nuclear sits at just 0.03.⁶ This comes out to 99.7% fewer deaths than oil and 97.6% fewer than gas, remarkable margins. Upstate New York has run into many NIMBY community opposition issues— delaying, increasing costs of, and ultimately making infeasible— many renewable development projects. We want New York to do a lot of community engagement work, prioritizing consent-based siting, helping NIMBY solar folks turn into YIMBY nuclear folks.

According to the Pew Research Center, 56% of American adults are for the expansion in the use of nuclear energy in the United States. Over the last 8 years, those that are supportive of the use of nuclear energy have grown a staggering 13%.⁷ This shows the growing interest and understanding of the importance of nuclear energy and its use to decarbonize our electric grid. We ask that NYSERDA side with this compelling data and growing public support by greenlighting nuclear energy production across New York, creating a safer and more sustainable future for all.

Sincerely,

Columbia University NiCE Club

Signatures

1. *Charlie Feuerman, Undergraduate Program in Sustainable Development, Queens-born & raised*
2. *Henry Sherrington, Sustainability Management Program student*
3. *Daniel Galperin, Earth & Environmental Engineering PhD student and NYC native*
4. *Amelia Chambliss, Applied Physics PhD student*
5. *Marikko Fanning, MS in Sustainability Management*
6. *Hunter Dare, Sustainable Finance*
7. *Phoebe Anderson, Undergraduate Program in Sustainable Development*
8. *Roberto Beltran, Sustainability Management Program*
9. *Josh Davis, Sustainability Management Master's student*
10. *Andre Hessini, Sustainability Management Master's Student and TA*
11. *David Lederer, Financial Engineering undergraduate program*
12. *Abhishek Damaraju, Sustainability Management Program*
13. *Steven Zhang, Columbia School of General Studies; Economics & Political Science*
14. *Malcolm Biggins, Columbia Sustainability Management Program, student*
15. *Nathaniel Klein, Columbia University undergraduate program in Mathematics*
16. *Dore Fish-Bieler, Columbia University School of General Studies Religion Major*
17. *Elie Hausman, Barnard College and The Jewish Theological Seminary*
18. *Shai Levy, Columbia University School of General Studies*
19. *Yehezkel Segal, Columbia School of General Studies and The Jewish Theological Seminary*
20. *Ariel Slomka, Columbia School of General Studies and The Jewish Theological Seminary*
21. *Nathaniel Chang-Deutsch, Columbia School of General Studies and The Jewish Theological Seminary*
22. *Max MikoLevine, Columbia University undergraduate program in Mathematics*

⁶ <https://ourworldindata.org/safest-sources-of-energy>

⁷ <https://www.pewresearch.org/short-reads/2024/08/05/majority-of-americans-support-more-nuclear-power-in-the-country/>

23. *Primanta Bangun, Columbia University, Sustainability Management*
24. *Julianne McCallum, M.S. Sustainability Management candidate*