# *STOP ENERGY SPRAWL*

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**November 8, 2024**

NYS Energy Research and Development Authority
17 Columbia Circle
Albany, New York 12203-6399

**RE: Stop Energy Sprawl Comments on NYSERDA Draft Blueprint for Consideration of Advanced Nuclear Technologies**

Dear Governor Hochul and NYSERDA President Harris,

Thank you for this opportunity to provide comments on the draft *Blueprint for Consideration of Advanced Nuclear Technology* prepared for the New York State Energy and Research Development Authority (NYSERDA).

Stop Energy Sprawl is a coalition of community groups and municipal officials from localities across New York State that have been targeted by wasteful, land-consuming industrial-scale solar and wind projects located far from where the energy to be produced is most needed. Since inception, Stop Energy Sprawl has grown to include over 40 organizations. Our members attend public meetings, provide information and analysis regarding the State's energy initiatives, speak with elected officials, and participate in state energy proceedings.[1] We also attended the Governor's Future Energy Economy Summit in Syracuse on September 5th. Stop Energy Sprawl holds that New York will have the best chance of decarbonizing its electric grid by pursuing a diverse set of solutions. However, NYSERDA's large-scale solicitations focus on unreliable generating technologies, industrial wind and solar, which come at great risk to New York's forest, farmlands, and natural resources.

**Recognizing the importance of a diversified energy strategy and the benefits of reliable, land-conserving technologies, Stop Energy Sprawl submits these comments in support of the Governor's initiative to consider Advanced Nuclear Power.**

In the five years since adoption of the Climate Leadership and Community Protection Act (CLCPA), the failures of the current plan have become increasingly visible. They are now impossible to ignore.

[1] Glen Families Allied for the Responsible Management of Land (GlenFARMLand), Protect Columbia, Farmersville United, Freedom United, Litchfield United, Flyway Defense, No Big Wind, Centerville's Concerned Citizens, Concerned Citizens of Rushford, Save Sauquoit Valley Views, StopCricketValley, Protect Orange County, Cattaraugus County Legislator Ginger D. Schroder Esq, Gary Abraham Esq, Roger Caiazza, David Sunderwith, Greg Woodrich. Before the State of New York Public Service Commission. Proceeding on the Motion of the Commission to Implement a Large-Scale Renewable Program and Clean Energy Standard CASE 15-E-0302, November 1, 2023. https://t.co/XNv1Cjjfn2 ; Stop Energy Sprawl, New Yorkers Call for a Sensible Energy Plan, September 5, 2024. https://drive.google.com/file/d/1SjxuSzPF2OtmrRqz_BVt9JrcEQhDhXz7/view

- NYSERDA recently reported that the Act's 2030 goal of meeting 70% of electricity demand with renewables will not be achieved.
- New York Independent System Operator (NYISO) warns of reliability problems and ***possible future blackouts*****,** especially downstate, as the state tries to replace dispatchable power plants with intermittent wind and solar generation.
- Organized labor is rightly concerned that high-wage energy jobs they enjoy will disappear or be transitioned to unboxing solar panels from China. Costs to support the plan's wind and solar goals have skyrocketed. NYSERDA has been awarding "strike price" guarantees as high as $150 per megawatt-hour for wind[2], several times the cost of electricity on the market today. Similarly, it is expected that the latest strike price guarantees for solar will be 40 – 75 % higher than those bid into NYSERDA's Tier 1 solicitations.[3]
- With greenhouse gas emissions from power plants on the rise, New Yorkers are witnessing climate action in reverse. Following the politically-driven closure of Indian Point, the state is burning more fossil fuels for electricity today than before the CLCPA was enacted. This has created greater dependence on more polluting "peaker plants," to say nothing of larger fossil fuel power plants, which now serve 90% of downstate demand.
- Business and industry are questioning whether to invest in a state where access to ample, reliable, and affordable energy essential to economic growth is in doubt. With potential disaster on the horizon, over sixty business groups and labor unions penned a letter in July urging the Governor to come up with a better plan—one that can work.[4]
- A wealth transfer has been initiated from New York to out-of-state and foreign developers incentivized by friendly tax laws like RPTL 487, lucrative state contracts, and a no-lose State siting process that targets and disrupts rural communities, upends local Ag-based economies, overwhelms under-prepared local governments, and leaves the value of homeowners' greatest personal investment – their homes – diminished.

**NYSERDA's draft *Blueprint for Consideration of Advanced Nuclear Technologies* provides a path to diversify New York's electric generation portfolio, protect our environment and respond to the preceding concerns.**

While no source of energy is without impacts, the benefits of including advanced nuclear power in the state's carbon-free energy portfolio are clear. Keeping the lights on means that electricity must be available *whenever* and *wherever* needed, regardless of the weather or time of day. In a system with lots of

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[2] French, *Offshore Wind Costs Double for Consumers as New York Keeps Early Projects on Track,* Politico, Feb 29, 2024. https://www.politico.com/news/2024/02/29/offshore-wind-costs-new-york-projects-00144143

[3] ACE-NY requested increases of 43% - 73% over awarded REC strike prices from 2016-2021 (*see* ORDER DENYING PETITIONS SEEKING TO AMEND CONTRACTS WITH RENEWABLE ENERGY PROJECTS, October 12, 2023, Case 15-E-0302, p.20). While the wholesale, uncompetitive increases were denied by the Commission, bidders were allowed to cancel their existing contracts and resubmit for higher prices. We expect the new bids to mirror or exceed ACE-NY's proposed adjustments.

[4] Letter to Governor Hochul from 60 business and labor organizations, NYS Business Council. July 30, 2024. https://www.bcnys.org/sites/default/files/2024-07/Final%20CLCPA%20%20sign%20on%20letter%20.pdf

intermittent solar and wind, tremendous amounts of storage are required to shift energy from when it is produced to when it is needed. However, even in a grid with tremendous storage, "firm" dispatchable capacity is necessary when intermittent sources are unavailable and batteries are depleted. This means having to install duplicative dispatchable generation to meet demand regardless of how much solar, wind, and storage are installed. In fact, NYSERDA and NYISO have predicted between 20 GW and 45 GW of dispatchable emission free resources (DEFRs) could be required just as "backup" in such a system.

Sprawling across the land, future solar and wind will also require a tremendous amount of new transmission to move electricity from where it is to be generated to where it is consumed—namely from upstate to downstate.

On the other hand, nuclear power is a "firm" carbon-free source of energy. It does not require battery storage because it makes electricity when needed, and it does not require backup power because it is already reliable. Furthermore, nuclear is not constrained by a limited supply of fuel like hydrogen or other firm sources. Operating in a baseload, load-following, or dispatchable configuration, advanced nuclear power can deliver electricity as much or as little as required in response to demand.

Throughout the world, every major economy that decarbonized its grid has done so with firm generation, whether it be nuclear power, hydropower, or both. Indeed, nuclear and hydro are why New York's upstate grid is already 90% carbon-free. The state does not have to reinvent the wheel to decarbonize its electricity system. Nuclear energy is proven technology that has served New York well for decades and should continue to do so.

The Climate Action Council's Scoping Plan considers DEFRs as simply a "backup" for solar and wind. This will be insufficient to address the preceding concerns. The blueprint should enable nuclear, as a firm resource, to generate a meaningful proportion of demand, thereby reducing the total amount of intermittent generation and storage required. This would, in turn, conserve land and natural resources, save New Yorkers money, and provide for a system-level architecture that is realistic. Analysis from NYSERDA has shown that deploying 4 GW of additional nuclear capacity would obviate the need for 12 GW of intermittent generation, plus 5 GW of storage or backup generation, saving a billion dollars.[5]

Today, nuclear power operates at a capacity factor greater than 90%. Along with its extremely high energy density, this makes the physical footprint and resulting environmental impact of nuclear a tiny fraction of solar or wind. For example, the Nine Mile Point and Fitzpatrick nuclear plants in Oswego County together occupy 900 acres and generate 2843 MW of power with three reactors. About 80,000 acres would be required to produce the same amount of energy annually with solar panels.[6] And yet, solar is very seasonal – much of that would be generated on sunny days in the summer. Vast amounts of storage, *additional* solar generation to overcome round-trip storage losses, and backup power from elsewhere would be necessary to create useful electricity capable of meeting New Yorker's needs.

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[5] CLCPA Scoping Plan, December 2022 (Appendix G, pages 92-93).
https://climate.ny.gov/resources/scoping-plan/-/media/project/climate/files/Appendix-G.pdf

[6] assuming 93% capacity factor for nuclear, 20% capacity factor for solar (AC), and 6 acres/MW for solar land cover.

Nuclear power has the lowest land consumption, the lowest requirement for mined materials, and the lowest lifecycle greenhouse gas emissions of any energy source.[7] Nuclear also requires less transmission infrastructure, especially if located near load centers. Existing nuclear facilities and former fossil fuel plants with existing infrastructure are both excellent locations for advanced nuclear. Whereas solar panels and wind turbines last only about 20 years, nuclear power facilities can operate 80 years or longer.

Nuclear power in New York creates hundreds of skilled high-wage jobs at every facility and has the highest level of unionization in the energy sector. With a 60+ year track record of experience and advancements in the United States, the technology has proven itself to be as safe as renewables.[8] Notably, a nuclear plant has never prompted a shelter-in-place order from New York's governor. Yet in just the past two years where New York saw several solar and battery facility fires, a 2023 Jefferson County blaze resulted in just such an order from the Governor.[9]

New York has choices. We can cover a million acres of New York farmland and forest with sprawling solar panels, wind turbines, batteries, and power lines—and still fail to shut down fossil fuel power plants. Or we can build a handful of reactors occupying a few hundred acres, decarbonize our electric grid, and produce reliable energy that can meet the long-term energy needs of a robust economy. When the cost of overbuilt solar and wind, storage, new transmission, and backup generation are added up, nuclear power is not only the most reliable and ecologically-friendly choice, but also the most fiscally responsible.

**A plan that would seek to expand solar and wind production by several orders of magnitude but fails to invest in additional nuclear is not a plan driven by science or reason.**

Pursuing Advanced Nuclear as part of a diverse set of generation technologies is the right course of action. The Summit in Syracuse and the release of the Blueprint indicate that NYSERDA and the Governor agree. However, it must be repeated that rushing to build industrial solar and wind without attention to feasibility, economics, engineering, or the wishes of upstate communities will fail and will only contribute to additional distrust and lack of confidence in State government.

New York should learn from the experience of its neighbor to the north. In Ontario, Canada, a "Green Energy Act" was pushed through the legislature by southern representatives of the province about a decade before the CLCPA. A rural backlash ensued by opponents, and exorbitantly priced wind contracts devastated

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[7] *Carbon Neutrality in the UNECE Region: Integrated Lifecycle Assessment of Electricity Sources*, UN Economic Commission for Europe, March 2022. https://unece.org/sites/default/files/2022-04/LCA_3_FINAL%20March%202022.pdf ; UNECE technology brief: Nuclear Power https://unece.org/sites/default/files/2021-08/Nuclear%20power%20brief_EN_0.pdf ; *Global Climate Objectives Fall Short Without Nuclear Power in the Mix: UNECE*, United Nations—UN News, August 11, 2021. https://news.un.org/en/story/2021/08/1097572

[8] H. Ritchie, *What are the Safest and Cleanest Sources of Energy?,* Our World in Data, Oxford. February 10, 2020. https://ourworldindata.org/safest-sources-of-energy

[9] CBS News, *Solar farm fire in Upstate New York sends possible toxic smoke billowing into surround community*, July 27, 2023. https://www.cbsnews.com/news/solar-farm-battery-fire-upstate-new-york-possible-toxic-smoke-shelter-in-place-lyme-jefferson-county/ ; C. Sanderson, *After three fires and a solar plant toxic fumes scare, New York launches safety probe into batter energy storage,* Recharge, July 31, 2023. https://www.rechargenews.com/energy-transition/after-three-fires-and-a-solar-plant-toxic-fumes-scare-new-york-launches-safety-probe-into-battery-energy-storage/2-1-1493418

the program. Eventually the Act was repealed altogether.[10] Fortunately, however, Ontario learned from that mistake and with a genuine commitment to slash emissions, now plans to build new nuclear plants. Four small modular reactors are even being built at the Darlington power station outside of Toronto.[11]

Across the United States, support continues to grow for expanding nuclear power as part of a rational solution to the climate crisis. States are repealing former bans, and as discussed at the Syracuse summit, many are now studying or actively planning for the deployment of advanced nuclear technology—including Washington, Texas, Maryland, Wisconsin, Georgia, and many others.

Significantly, nuclear power also enjoys broad bipartisan support in Congress. The Inflation Reduction Act extends production tax credits and investment tax credits to nuclear power that were previously reserved for solar and wind. Moreover, in 2023 the Biden Administration joined over 20 nations in a "Net Zero Nuclear" initiative that pledges to triple the nuclear capacity of each nation by 2050.[12] Most recently, at a nuclear finance summit in New York City, 14 global banks and financial institutions announced support for advanced nuclear projects to meet that goal.[13] As noted in the draft Blueprint, the U.S. Department of Energy has also published an Advanced Nuclear "Liftoff Report" that constitutes a comprehensive analysis of opportunities, incentives, and programs to support the deployment of 200 GW of additional nuclear capacity.[14] According to the Pew Research Center, a majority of Americans favor building more nuclear plants as well.[15] If New York wants to lead on climate change and garner its share of federal dollars and good jobs, it will join other states in the nation that are already committed to advanced nuclear power.

With respect the draft Blueprint, we urge Governor Hochul, NYSERDA, and the Public Service Commission (PSC) to follow science, to listen to credentialed experts in nuclear technology, and to reject ideologically-driven hyperbole. We also encourage New York to collaborate with other states in the region, throughout the country, and Canada. Through regional planning and the pooling of financial resources, New York and its neighbors can collectively create an order-book of "Nth-of-a-Kind" advanced reactors to ensure an effective deployment of power plants on time and on budget.

Furthermore, the Governor, NYSERDA, and PSC should coordinate with the New York Power Authority, the nation's largest state public power entity. NYPA was instrumental in developing the nation's first commercial reactors. In fact, the James Fitzpatrick nuclear plant on Lake Ontario is named after the Authority's former chairman. Engaging the resources of NYPA to develop advanced nuclear power is entirely consistent with

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[10] Ontario Newsroom, *Ontario Scraps the Green Energy Act*, News Release, December 7, 2018. https://news.ontario.ca/en/release/50684/ontario-scraps-the-green-energy-act

[11] OPG New Nuclear https://www.opg.com/newnuclear

[12] Net-Zero Nuclear: https://netzeronuclear.org/ ; U.S. Dept of Energy, At COP28, Countries Launch Declaration to Triple Nuclear Energy Capacity by 2050, Recognizing the Key Role of Nuclear Energy in Reaching Net Zero, December 1, 2023. https://www.energy.gov/articles/cop28-countries-launch-declaration-triple-nuclear-energy-capacity-2050-recognizing-key

[13] World Nuclear News, *14 Major Global Banks and Financial Institutions express support to Triple Nuclear Energy by 2050,* September 23, 2024. https://world-nuclear.org/news-and-media/press-statements/14-major-global-banks-and-financial-institutions-express-support-to-triple-nuclear-energy-by-2050-23-september-2024

[14] U.S. Department of Energy, *Pathways to Commercial Liftoff: Advanced Nuclear, revised* September 2024. https://liftoff.energy.gov/advanced-nuclear/ ; full report: https://liftoff.energy.gov/wp-content/uploads/2024/10/LIFTOFF_DOE_AdvNuclear-vX7.pdf

[15] R. Leppert, B. Kennedy, *Majority of Americans support more nuclear power in the country,* Pew Research Center, August 18, 2023. https://www.pewresearch.org/short-reads/2023/08/18/growing-share-of-americans-favor-more-nuclear-power/

the Authority's mission, which is to "Lead the transition to a carbon-free, economically vibrant New York through customer partnerships, innovative energy solutions, and the responsible supply of affordable, clean, and reliable electricity."[16]

Finally, we urge the Governor and agencies to reject the divisive rhetoric of provocateurs. We are aware that opponents of nuclear energy have levied vague accusations that the state is somehow pursuing an "undemocratic" process. We believe the exact opposite to be so. In our view, Governor Hochul and NYSERDA are to be commended for hosting the public summit that occurred in Syracuse and considering alternatives that will benefit communities and energy needs of the state. We also note that proponents of nuclear power support a *consent-based* siting process. By contrast, the solar and wind industry—and NGOs they sponsor—have advocated for rules, regulation, and legislation that have systematically stripped local governments of home rule, that prevent towns from deciding how much industrial-scale solar and wind they want to support, that limit public input on renewable energy projects, and that deprive communities of fair tax revenue for the projects they are forced to host. Many of those same interests are now attempting to prevent New York from considering alternatives. Undemocratic practices are indeed at work, but not by advocates of nuclear power.

We would also note that in July of this year, the democratically-elected Wayne County Board of Supervisors passed a unanimous resolution that supports relicensing of the Ginna nuclear power plant and expresses a strong desire to be at the forefront of building additional reactors.[17] We hope that as the State considers the future of advanced nuclear technology in New York, it will encourage and support communities that want develop reliable clean energy, not stifle it.

By respecting communities and embracing a balanced energy plan that supports the expansion of all carbon-free resources — including those capable of generating reliable electricity within an energy-dense footprint — New York can meet its climate goals, protect the environment and natural beauty of New York, and meet the needs of a vibrant economy.

On behalf of our many members, we thank you for this opportunity to comment.

Sincerely,

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[16] About the New York Power Authority, NYPA. https://www.nypa.gov/about

[17] S. Buchiere, *Wayne County Board of Supervisors Push for New Nuclear Facility,* Finger Lakes Times, July 19, 2024. https://www.fltimes.com/news/wayne-county-board-of-supervisors-push-for-new-nuclear-facility/article_283b3a2a-443f-11ef-8f49-c760c57e9372.html