



October 11, 2024

VIA ELECTRONIC SUBMISSION THROUGH NYSERDA COMMENT PORTAL

Doreen Harris, President and CEO
New York State Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203

Re: Comments on the “Draft Blueprint for Consideration of Advanced Nuclear Technologies”

Dear President and CEO Harris:

These comments are being submitted on behalf of Citizen Action of New York (Citizen Action) in response to the release of the “Draft Blueprint for Consideration of Advanced Nuclear Technologies” (Draft Nuclear Blueprint or Blueprint), prepared by the Brattle Group for the New York State Energy Research and Development Authority (NYSERDA).

Citizen Action is a non-profit membership organization that advocates for social, racial, economic and environmental justice with chapters or affiliates in eight locations in New York State. Among our highest priorities are addressing climate change and the rights of low-income people and people of color. Citizen Action has members and supporters in some of the most distressed communities in the state. People of color are significantly represented in our membership and leadership. Citizen Action is also a member of the Steering Committee of NY Renews,¹ a large climate justice coalition that played the lead role in generating support for passage of what become the Climate Leadership and Community Protection Act (CLCPA),² New York’s landmark climate law.

I. **The Process for Public Participation in the Development of the Blueprint Has Been Extremely Inadequate, Given the Complex Issues Involved and the Importance of this Issue to New York State Climate and Energy Policies**

The CLCPA outlined a careful process -- involving coordinated state agency action coupled with significant public input -- to enable New York State to achieve the targets in the CLCPA, regarding greenhouse gas (GHG) emissions and as to the percentage of renewable and zero emissions electricity provided to end-users. This process, of course centered around the appointment of a 22-member Climate Action Council (CAC) consisting of agency commissioners

¹ However, these comments represent the views of Citizen Action alone.

² Chapter 106, Laws of 2019. The Environmental Conservation Law (ECL) provisions referenced below were enacted as part of the CLCPA.

and public members, which was assigned the responsibility of writing a “scoping plan”³ that outlined recommendations for meeting the CLCPA emissions limits and other CLCPA goals.⁴ The statute also contained procedures for robust public input, including for public comments on the Scoping Plan, hearings and consultation with a Climate Justice Working Group established to advise the CAC.⁵

In developing the Blueprint, the Governor and NYSERDA have thus far fallen far short in developing a careful and meaningful public input process as to the future of nuclear, given the issue’s complexity, importance to state climate and energy policy and impact on public health and safety. The governor released the Blueprint during her September 4-5 Syracuse “Future Energy Economy Summit,” an invitation-only event held more than 20 months after the Scoping Plan’s release. The state did not invite virtually any grassroots climate or environmental justice group, including those who were instrumental in the drafting and winning passage of the CLCPA in 2019, including Citizen Action and NY Renews. And impacted organizations, many of whom have small staffs or who are volunteer-based, were initially given until October 7th, roughly 30 days, to comment on the complex issues involved.⁶ This is in comparison to the 60 days that the State Administrative Procedure Act (SAPA) provides as the minimum comment period for proposed rules after their publication in the State Register,⁷ and the elaborate process -- including six regional hearings -- that the CLCPA established for public comments on the Draft Scoping Plan.⁸

Second, as detailed in Section II, the Brattle Group did not consider, or considered in an extremely cursory fashion, many of the issues that the CAC thought were critical to the consideration of the expansion of nuclear technology in New York State.

We appreciate that the comment period for the Blueprint was ultimately extended until November 8th,⁹ apparently in response to requests by numerous advocates and state legislators. However, the extension of the comment period in and of itself is not adequate. At a minimum, absent a much more careful process with adequate public input, and a more thorough study or set of studies that answers the major concerns raised by the continuation of nuclear, the state and the Governor should abandon its consideration of the expansion of nuclear energy in New York. And, as discussed further below, we do not believe that the decades-long identified concerns with nuclear can be resolved, even with a much more careful and protracted process.

³ New York State Climate Action Council, “New York State Climate Action Council Scoping Plan” (December 2022), <https://climate.ny.gov/resources/scoping-plan/> (“Scoping Plan”).

⁴ Environmental Conservation Law (ECL) §§ 75-0103(1), (11).

⁵ ECL § 75-0103.

⁶ See Barclay-Damon Web Post, “All Eyes are on Nuclear in New York State,” (September 14, 2023), <https://www.barclaydamon.com/alerts/all-eyes-on-nuclear-in-new-york-state>.

⁷ State Administrative Procedure Act § 202(1).

⁸ ECL § 75-0103(12(a)).

⁹ See NYSERDA Comment Portal at: https://portal.bnyserderda.ny.gov/Public_Comments?campaignId=701cr000002fc8F.

II. **The Draft Nuclear Blueprint Failed to Consider, or Adequately Consider, Numerous Issues that the State Climate Action Council Thought Were Critical for Determining Whether to Proceed With Nuclear Energy**

In the Scoping Plan, the CAC outlined the issues that the state should evaluate before adding nuclear to the mix of technologies available to comply with the CLCPA's 100X40 electricity target:¹⁰

The State should evaluate the role of existing nuclear reactors within the 100x40 requirements as part of policy actions needed prior to the cessation of the State's Zero Emissions Credit program in 2029, and also include the time needed for potential federal and State relicensing of these facilities and the time to determine refueling options for the different reactors. In addition, the State should consider the potential contribution of advanced nuclear technologies in achieving 100% zero-emission electricity by 2040. Advanced nuclear reactors may provide a way to develop and deploy new nuclear resources faster, at lower cost, with improved safety mechanisms and with lower residual nuclear waste, *but this potential has not been demonstrated and must be carefully and rigorously evaluated. Within this evaluation, the State should analyze the expense, health, safety, security, opportunity costs, community impact and environmental impacts of nuclear power generation, including but not limited to, fuel mining and production, nuclear waste disposal and site remediation.*¹¹

The Draft Nuclear Blueprint has not addressed many of the issues just set forth, except in some cases in the most cursory fashion. And, as the examples below demonstrate, when the Blueprint did touch on an issue, its analysis was often highly speculative or simply did not make the case for expansion of nuclear:

1. The Blueprint did not determine the role of nuclear reactors in achieving the 100X40 goal. In particular, it did not estimate what percentage of the "emissions free"¹² electricity goal could be achieved by nuclear technology and the alternatives.
2. The Blueprint did not analyze or purport to analyze the "time needed for ...relicensing of" of existing nuclear plants or for refueling options -- a critical factor given that the CLCPA electricity targets have to be met in specified years. The Blueprint primarily concerned itself with the prospects (however speculative) for a new generation of "advanced" nuclear reactors, a term that the Blueprint conceded

¹⁰ The CLCPA requires that 70% of the electricity provided to "end-users" in New York State be generated by "renewable energy systems" by 2030, and 100% that the statewide "electrical demand system" to be "zero emissions" by 2040. Public Service Law § 66-p(2).

¹¹ Scoping Plan, at 256 [emphasis added].

¹² We use the term "emissions free" to reflect the use in the Blueprint and in other state documents. By using this term, we are not conceding that nuclear energy meets the definition of "emissions free" in the CLCPA.

has “varie[d]” definitions and incorporates different designs, “each with its own features,”¹³ and technological readiness. Therefore, as the Blueprint authors seemed to acknowledge, we cannot determine or even reasonably estimate when this new “advanced” generation of reactors will be available to address the state’s power needs and what contributions it can make, if any, to meeting the CLCPA targets.

3. The Blueprint did not determine or even estimate the expenses involved in expanding nuclear generation in New York State. To the extent cost was mentioned, the Blueprint correctly recognized the virtual impossibility of projecting costs at all, given the “long history of substantial cost overruns” of the nuclear industry, the cost overruns as to the most recent commercial reactors to be completed in the U.S. (i.e., the Vogtle units), and the highly speculative nature of costing out new and untried reactor designs.¹⁴
4. While the Blueprint does in a cursory fashion discuss the safety record of *existing* nuclear plants, it cautions that legitimate concerns have been raised about the Nuclear Regulatory Commission’s (NRC’s) ability to ensure safety “for the large number of very different reactor designs that are likely to enter full-scale licensing in the next several years.”¹⁵ And the Blueprint adds that the NRC has not adequately analyzed the increased safety concerns that will certainly be present due to climate change, like increasing storms and other extreme weather events.¹⁶

III. In the Absence an Analysis of the Comparative Costs and Benefits of Alternatives to Nuclear, the State Should Not Use Its Limited Resources to Plan for Nuclear as a Potential Solution to Meet the 100X40 Target

Perhaps most shocking is the failure of the Blueprint failure to clearly outline the rationale for nuclear. The closest the Draft Nuclear Blueprint has come to such a rationale is the need for Dispatchable Emissions Free Resources (DEFERs), particularly during “prolonged periods of low solar and wind input.”¹⁷ While conceding that the prospects for advanced geothermal and long-duration storage, in addition to increased energy efficiency and load flexibility, are promising, the Blueprint simply speculates that nuclear *may* be necessary because “it is unlikely that a single technology will emerge to meet ... [the] large, critical need [for DEFERs].”¹⁸

In contrast, the Scoping Plan said in 2022 that “[t]he renewable electricity requirement *can* be accomplished by aggressive deployment of existing renewable energy

¹³ Blueprint, at 6-7.

¹⁴ *Id.*, at 16-18.

¹⁵ *Id.*, at 14.

¹⁶ *Id.*, at 14.

¹⁷ *Id.*, at 1.

¹⁸ *Id.*, at 2.

technologies such as wind, solar, and energy storage.”¹⁹ Undoubtedly, the Scoping Plan states, New York will have to significantly invest in energy storage technologies. However, the Scoping Plan continued that through steps like the establishment of a Storage Center of Excellence, “new technologies can be matured and deployed on the grid for large-scale testing as well as attract and engage relevant parties in collaborative efforts to address the challenges unique to long-duration storage.”²⁰

Battery storage appears to have a promising future, as technology advances and the costs come down.²¹ “[A]s the [Intergovernmental Panel on Climate Change] ... states, in its special report on climate: ‘The political, economic, social and technical feasibility of solar energy, wind energy and electricity storage technologies has improved dramatically over the past few years, while that of nuclear energy and carbon dioxide capture and storage (CCS) in the electricity sector have not shown similar improvements.’”²²

No reason is provided in the Blueprint why expansion of our state’s battery storage capacity is not a more promising strategy for addressing the need for additional dispatchable resources than nuclear; it appears almost certain that it is. The concerns presented by a large expansion of battery storage seem minor compared to the cost concerns, safety concerns, regulatory uncertainty, and technological problems presented by adoption of “advanced” nuclear technology. At a minimum, before the expansion of nuclear is even considered, NYSERDA should do a comparative analysis of nuclear and renewables, considering such factors as cost, safety, and technological feasibility. As previously mentioned, this kind of comparative analysis is completely absent in the Blueprint.

IV. The Blueprint’s Discussion of the Impact of Nuclear on the Climate Justice Provisions of the CLCPA Was Extremely Inadequate

Section 7(3) of the CLCPA provides that “[i]n consideration and issuing permits, licenses, and other administrative renewables and approvals and decisions”, all state agencies “shall not disproportionately burden disadvantaged communities.” The Blueprint simply failed to examine the role of nuclear in light of section 7(3). It is simply unacceptable to imply, as does the Blueprint, that the environmental justice issues are a secondary concern when it comes to nuclear plants, as “almost all” of the life cycle of advanced nuclear facilities will occur out of state.²³ This statement ignores the fact that state

¹⁹ Scoping Plan, at 219-220 [emphasis added].

²⁰ *Id.*, at 226, 255.

²¹ See IEA Web Post, “Rapid expansion of batteries will be crucial to meet climate and energy security goals set at COP28 (April 2024),” <https://www.iea.org/news/rapid-expansion-of-batteries-will-be-crucial-to-meet-climate-and-energy-security-goals-set-at-cop28>.

²² The IPCC special report on climate is quoted in Green America Web Post, “Nuclear Power is Not a Climate Solution”, <https://www.greenamerica.org/nuclear-energy-not-climate-solution>.

²³ Blueprint, at 16.

residents will be impacted by concerns like waste storage and transportation of nuclear materials particular to nuclear which will obviously occur within the state. Moreover, in siting a nuclear plant, there are obviously multiple other issues that must be considered under section 7(3) and other environmental justice provisions, including safety, noise, traffic and evacuation plans in the event of an accident. Given the enormous regional and statewide impacts of siting any new nuclear plant in the state, these broad issues should be analyzed from an environmental justice standpoint at the early stages of the state's examination of nuclear rather than when state agencies have permit applications for the construction of a nuclear plant before them.

As the Blueprint notes, the Nuclear Regulatory Commission (NRC) restricts the siting of any nuclear plant within twenty miles of a population center.²⁴ At a minimum, as part of the Blueprint process, the state should map where in the state a nuclear plant could be cited under this standard, overlaid with a map (or list) of disadvantaged communities (DACs) under the CLCPA. With this information, DAC residents, and impacted stakeholders will be better informed about the potential impact on their communities who then can provide input to NYSERDA should they wish to.

V. Additional Issues of Concern

Citizen Action wishes to briefly address other issues.

1. Environmental Justice and Health Concerns: In addition to the need to comply with the specific climate justice provisions of the CLCPA, which are discussed in Section IV, the production of nuclear energy in and of itself entails numerous harms to environmental justice communities, *inside and outside of the state*, including Indigenous Peoples. These harms include, but are not limited to emissions from reactors, which are known carcinogens, teratogen and mutagens.
2. Nuclear Power is Extraordinarily Expensive, Particularly in Comparison to Renewables and Massive Cost Overruns Are Extremely Likely: Nuclear power is exorbitantly expensive when compared with renewables like wind and solar.²⁵ As the Blueprint itself states, the most recent commercial reactors to be completed in the U.S. were originally estimated to cost \$13 billion but ended up costing \$32 billion. Cost overruns have been a pattern throughout the history of nuclear plants in the U.S.²⁶

²⁴ *Id.*, at 15.

²⁵ See Renew Economy Blog Post, "Wind and solar power half the cost of coal and gas, one-third the cost of nuclear, says Lazard," (October 2024), <https://reneweconomy.com.au/wind-and-solar-power-half-the-cost-of-coal-and-gas-one-third-the-cost-of-nuclear-says-lazard/>.

²⁶ Blueprint, at 18-20.

3. Substantial Delays Can Be Expected in the Construction of Nuclear Plants: As the Blueprint itself alludes to, the construction of nuclear plants has been rife with substantial delays.²⁷ We assume that delays will if anything be longer should New York entertain permits for new and untested “advanced” reactor designs. This is a particularly critical problem in the current instance, as NYSERDA is examining nuclear in large part as a potential solution to address possible difficulties in meeting the CLCPA’s 100X40 target. To us, it seems more prudent for the state to instead increase its focus on resolving the remaining issues related to the rapid expansion of renewable projects, including siting. Presumably, renewables will be able to be sited far more quickly in the past in coming years, as the state gains additional experience in siting plants through the Office of Renewable Energy Siting (ORES), and the passage of the Renewable Action through Project Interconnection and Deployment (RAPID) Act, which became effective in 2024.
4. The Nuclear Waste Problem Remains Unresolved: The permanent storage of nuclear waste safely remains totally unresolved despite decades of focus on this problem by the U.S. government.²⁸ Given this history of failure, New York policymakers must assume that the additional nuclear waste generated by any new nuclear plant sited in New York will be stored onsite in our state for years, as the Blueprint notes.²⁹ Therefore, the question posed in the Blueprint asking how the state can work with the federal government to “manage” nuclear waste is somewhat beside the point. The most rationale course would be for New York not to produce any more nuclear waste through nuclear plants.
5. Small Modular Reactors are An Unproven Technology: The nuclear industry thus far has been totally unable to build small modular reactors close to on time and on budget. Contrary to the suggestion in the Blueprint,³⁰ they may create more waste than conventional designs.
6. The Case in the Blueprint for Nuclear Power as a Source of Jobs is Extremely Weak: The Blueprint’s justification for an expansion of nuclear based on the premise that it will create jobs is extremely weak and speculative.³¹ First, there is considerable evidence that solar, for example, creates more jobs than

²⁷ See *Id.*, at 16.

²⁸ Citizen Action believes there is no way that high level nuclear waste can be stored safely. However, whether or not one agrees with this position, we believe it cannot be disputed that the storage of nuclear waste will be a massive logistical, cost and frankly political problem for New York State policymakers for years to come, which must be factored in to the state’s decision as to whether to expand nuclear power.

²⁹ See *Id.*, at 22.

³⁰ *Id.*, at 22.

³¹ See *Id.*, at 4.

nuclear.³² At a minimum, a thorough jobs study should be done prior to job creation potential being considered as a factor as to whether to pursue nuclear power further in the state.

In summary, the Blueprint is thoroughly inadequate as a basis for pursuing nuclear as a potential solution to meeting the targets in the CLCPA, and its electricity targets in particular. The numerous documented problems with nuclear as well as the public opposition that caused the nation to reject it as a viable technology decades ago -- including safety, health issues, nuclear waste, and cost -- have not substantially changed in the intervening period. NYSERDA should not use the fatally flawed Blueprint as a basis for its future energy policies and New York should abandon its consideration of nuclear power as an option in New York State.

Thank you for the opportunity to offer the comments of Citizen Action of New York on the Draft Nuclear Blueprint. Please do not hesitate to contact me at bcohen@citizenactionny.org or at (518) 265-6183 concerning these comments.

Very truly yours,



Bob Cohen, Esq., Policy and Research Director
Citizen Action of New York

³² cleanenergy.org Web Post, "Solar Creates More Jobs than Nuclear" (February, 2020), <https://www.cleanenergy.org/blog/solar-creates-more-jobs-than-nuclear/>.