From: info@ibew1049.com
To: erda.sm.DraftBlueprint
Subject: Blueprint for Consideration of Advanced Nuclear Technologies Comment
Date: Thursday, November 7, 2024 3:43:55 PM
Attachments: Feedack Role of Advanced Nuclear Technologies in New York.docx

Please see the attached feedback which includes contribution from Business Manager Pat Guidice of IBEW Local 1049. Pat Guidice also serves as Chairman of the Utility Labor Council.
Sincerely,
IBEW Local 1049

We are strongly in favor of the deployment and development of **advanced nuclear technologies** in New York for several compelling reasons, which align with the state's decarbonization goals, the growth of clean energy jobs, and the long-term resilience and reliability of the energy grid.

New York's transition to a clean, reliable, and affordable energy system is vital for its economic growth and environmental goals. The state's Climate Leadership and Community Protection Act (CLCPA) mandates a zero-emission electrical demand system by 2040 and a carbon-neutral economy by 2050. To meet these ambitious goals, New York is pursuing renewable energy sources like solar, wind, and energy storage. However, challenges remain, particularly in maintaining a reliable and consistent power supply during periods when wind and solar are less available. The need for Dispatchable Emissions-Free Resources (DEFRs) technologies that can provide reliable, clean energy during such periods is critical. By 2040, New York may need over 25 GW of DEFRs, increasing further to potentially 40GW by 2050.

One potential solution is advanced nuclear technologies, which are emerging as a viable source of dispatchable, carbon-free power. Advanced nuclear offers scalability, minimal land use, and potential economic development opportunities. Recent federal initiatives, including the ADVANCE Act of 2024, have reduced regulatory barriers and supported the development of advanced nuclear plants.

While advanced nuclear technologies offer promising benefits, including improved safety, efficiency, and modularity, their development faces technical, economic, and environmental justice challenges. Advanced nuclear reactors are designed to be more controllable and weather-resistant, helping balance the grid and complement renewable energy. Furthermore, their smaller land footprint compared to solar power makes them ideal for areas with land constraints. These reactors can also serve large industrial facilities, potentially boosting local economies.

From a workforce and economic perspective, advanced nuclear projects could create significant job opportunities, from construction to plant operation. Nuclear plants also support local economies, with estimates suggesting that for every 100 nuclear plant jobs, 66 additional jobs are created in the surrounding community.

Additionally, advanced nuclear plants have potential for supplemental applications, such as providing waste heat for industrial processes, which could aid sectors like chemical manufacturing and steel production that are challenging to electrify.

We offer the following feedback specifically to this draft report:

The report does a commendable job of highlighting the potential economic and workforce benefits that advanced nuclear technologies can provide. However, we believe that the workforce impacts should be given even more emphasis, especially in the context of the high-quality jobs that nuclear facilities generate. Advanced nuclear plants will not only create thousands of construction jobs but also high-wage, long-term operations jobs that can support workers in New York's communities. These are jobs that typically pay significantly more than those in many other sectors and often require skilled labor, providing opportunities for apprenticeships and training programs for local workers. We recommend that the report expand on the job creation potential in the operational phase of these plants. It's important to highlight that nuclear plants are a long-term source of sustained employment, not just temporary construction jobs. A fully operational nuclear plant could sustain hundreds of jobs, many of which would be local hires from nearby communities. This stability is crucial for the ongoing economic vitality of areas like Oswego, NY, which have historically relied on energy production for local employment. The construction, operation, and maintenance of nuclear plants offer opportunities for labor-management partnerships that promote safe, high-quality, and efficient plant operations. We strongly support the idea that New York's nuclear plants should be operated with unionized labor, as these workers bring the expertise and commitment to safety that is essential for nuclear energy. It's critical that the report acknowledges the need for labor agreements on operation and maintenance jobs prior to full operation; ensuring strong workforce protections and a commitment to local hiring and apprenticeship programs.

The report notes the potential of advanced nuclear technologies in New York but should better address specific sites such as Oswego, NY, which is uniquely positioned to host a new nuclear plant. Oswego is a site with an established history of nuclear energy production and robust grid connections. The land is available, and the infrastructure (e.g., access to transmission lines and water resources) is already in place, making it a prime location for an advanced nuclear facility. We encourage the report to highlight Oswego as a key site for new nuclear development and to emphasize the potential for expanding nuclear power in an area already accustomed to the benefits and operations of nuclear plants. Key factors include established land space and competed testing for additional nuclear facilities. Because the site is already prepared, with regulatory and environmental studies completed, building a new plant or multiple plants in Oswego could potentially save time and money compared to starting from scratch in new locations. This could accelerate the timeline for achieving zero-emission energy targets.

The report outlines the need for dispatchable, zero-emissions resources to complement intermittent renewables like wind and solar. We strongly agree with this assessment. Advanced nuclear technologies can provide baseload power with the ability to follow grid

demand, ensuring that clean energy can continue to flow when solar and wind generation are soft. As the state phases out fossil fuel generation, nuclear stands as one of the most reliable, scalable options to fill the gap. We urge the report to more explicitly state that advanced nuclear technology is an essential part of the mix if New York is to meet its ambitious decarbonization goals. The ability of nuclear power to deliver reliable, carbon-free electricity consistently should be highlighted as a key component of the state's energy strategy.

While the report mentions advanced nuclear technologies in terms of safety, there should be further clarification that advanced nuclear technologies, with passive safety systems and modular designs, are safer than traditional reactors. The safety mechanisms associated with many advanced nuclear designs are substantially enhanced compared to legacy technologies. This can provide both the public and workers with confidence in the safe long-term operation of these facilities. We recommend that the report explore deeper into these advanced safety technologies and how they can help to mitigate public concerns about nuclear energy, especially in the context of New York's energy future.

The report briefly mentions supply chain opportunities but could further study the economic development potential that advanced nuclear technologies offer New York. New York already has a strong nuclear industry base, with companies supplying both domestic and military (Navy) nuclear needs. The development of advanced nuclear technologies could further solidify New York's role as a leader in nuclear innovation and advanced manufacturing, potentially attracting new companies and creating additional high-tech jobs in the state. We encourage the report to expand on how the state can foster the growth of nuclear technology supply chains and explore ways that local suppliers can be integrated into these efforts.

The IBEW Local 1049 strongly supports the advancement of nuclear energy technologies, including advanced nuclear as a crucial part of New York's decarbonization strategy. We believe that this report could go further in highlighting the workforce benefits, safety advantages, and spin off economic opportunities that come with advanced nuclear power. By building on New York's existing infrastructure and leveraging advanced technology, we can ensure a sustainable and reliable energy future for all New Yorkers.

We look forward to further discussions on this important issue and are committed to working alongside the State and other stakeholders to ensure the success of nuclear energy in New York's clean energy transition.