



National Hydropower Association Comments in Response to the New York Power Authority's Request for Information on Renewable Energy Opportunities

January 26, 2024

The National Hydropower Association (“NHA”) is pleased to submit these comments to the Request for Information to inform the New York Power Authority’s (“NYPA”) strategic planning efforts for renewable energy in New York.

BACKGROUND - NHA is a non-profit national association dedicated to securing water power as a clean, carbon-free, renewable, and reliable energy source that provides power to an estimated 30 million Americans. The association’s membership consists of more than 340 organizations, including public and investor-owned utilities, independent power producers, equipment manufacturers, and professional organizations that provide legal, environmental, and engineering services to the water power industry. NHA promotes innovation and investment in all water power technologies, including hydropower, marine energy, and pumped storage, which can help integrate other sources of clean power, such as wind and solar.

NHA appreciates the action taken by NYPA to work with private sector renewable energy companies during its implementation of NYPA’s Enhanced Authority within the Power Authority Act, as passed into law in May 2023. Through the following comments, NHA hopes to impress upon NYPA the importance of including marine energy technologies in NYPA’s two-year strategic plan and NYPA’s planning, development, design, construction, operation, financing, siting, and/or ownership of renewable energy generation and storage systems.

COMMENTS - Marine energy is a significant and valuable untapped renewable resource that can help decarbonize New York’s energy portfolio. Marine energy uses natural energy from moving water—such as waves, tides, and free-flowing currents in oceans, rivers, and conduits—to produce renewable power.

New York will need innovative and new sources of renewable energy to meet its goal of producing 70% of the state’s electricity from renewable sources by 2030. The National Renewable Energy Laboratory (NREL) estimates that utilizing just one-tenth of the total marine energy resource potential in the U.S. equals 5.6%¹ of total electricity generation produced in 2021 and could power over 22 million homes. For comparison, all domestic installed solar power capacity generated 3.4% of total U.S. electricity in 2022. Specifically for New York, NREL identified that one of the top five tidal energy resources for the contiguous United States is located in the state. NREL calculated that Fishers Island Sound in New York has a total theoretical tidal resource potential of 2.35 TWh/yr and New York’s total river resource potential to be 8.7 TWh/yr, making New York a key location for marine energy development.

New York’s marine energy potential is not just theoretical. New York based marine energy technology developer [Verdant Power](#) deployed a tidal turbine array in the East River of New York City in October 2020. Verdant Power’s Roosevelt Island Tidal Energy (RITE) demonstration project exceeded expectations and generated a total of 312 MWh during its limited deployment, a record for marine

¹ [Marine Energy in the United States: An Overview of Opportunities](#), National Renewable Energy Laboratory, 2021

energy production in the United States. The project was the culmination of years of research, development, and demonstration activities supported by the U.S. Department of Energy, the State of New York, and private investors. Please see linked background information here ([RITE Project](#)) and a video produced by NREL here ([RITE Deployment Video](#)). In accordance with the expiration of the project's Federal Energy Regulatory Commission license, the project was decommissioned in 2021.

There are numerous marine energy developers in the U.S. currently working to reach a Technology Readiness Level (TRL) for their systems that will be attractive to public and investor-owned utilities and independent power producers. NHA has worked to build federal support from the U.S. Department of Energy, creating "market push" mechanisms, or federal support for research, development, demonstration, and deployment (RDD&D) activities for marine energy technologies. NYPA's inclusion of marine energy within its strategic planning moving forward will help create a "market pull" environment for marine energy technologies and help make New York a leading state for marine energy development and deployment. Having this "market pull" support will bring mature marine energy technologies to New York, avoiding carbon emissions and contributing to New York's clean energy goals and local job creation.

NHA released its "[Commercialization Strategy for Marine Energy](#)" in April 2021 which identified several actions needed to accelerate advancement and deployment of marine energy technologies at scale. One of the key recommendations was establishment of national marine energy deployment targets, just as the Biden Administration has done for offshore wind. The NHA commercialization strategy set marine energy deployment targets of 50 MW by 2025, 500 MW by 2030, and 1 GW by 2035. New York could lead the way by establishing state level marine energy deployment targets as part of the 2030 deadline.

CONCLUSION - Deployment of marine energy technologies in New York will provide a reliable and secure source of sustainable, locally generated power while increasing robust and equitable economic development opportunities, creating high-value jobs, and positioning New York as a leader in marine energy commercialization. In recognition of marine energy's potential to provide clean and consistent energy and contribute to New York's net-zero goals, NHA appreciates NYPA considering the above comments. Please reach out to the contact below with any questions or for additional information. We would greatly appreciate the opportunity to arrange a briefing on the benefits of marine energy for New York with the appropriate NYPA staff.

Sincerely,



Kelly Rogers
Manager, Policy and Communications
National Hydropower Association
200 Massachusetts Ave NW, Suite 320, Washington, D.C., 20001
kelly@hydro.org
(202) 740 - 0248