

Project Candidate Template

Style Definition: Heading 1

Instructions: Stakeholders are encouraged to present their project ideas at a stakeholder meeting and raise with their sector to get feedback on their proposal. Several BPWG meetings have been set aside at the start of the project prioritization process. The project description below is required for all project candidates to be included in the survey. Stakeholders should contact Mike DeSocio at (518) 356-7518; mdesocio@nyiso.com or Kevin Pytel at (518) 356-8892; kpytel@nyiso.com (cc Debbie Eckels deckels@nyiso.com on any email communications) to discuss any suggestions for new projects. A NYISO staff member will be assigned to work with the stakeholder on each new project request, provide assistance with completing this business case as needed, and facilitate internal discussions for the NYISO scoring and resource estimation. Please complete this template with as much information as possible.

1 Clean Hydrogen Requested by NextEra [and Constellation](#)

1.1 Problem / Opportunity

Currently, [NYISO's tariff does not clearly contemplate the co-location of an emissions-free generator and load arrangement](#)~~there is no market participation model in NYISO that provides for the co-location of an emissions free generator and a load~~, such as an electrolyzer producing clean hydrogen. This lack of an effective pathway will inhibit the development of clean hydrogen infrastructure, which will impede achievement of New York's decarbonization goals.

1.2 Project Objective(s) & Anticipated Deliverable(s)

The Clean Hydrogen Project would investigate use cases proposed by Market Participants for loads co-located with non-emitting generation, including an electrolyzer producing clean hydrogen using energy from a co-located emissions-free generator, and work with the NYISO to develop a market concept towards meeting a Market Design Concept Proposed milestone in 2024. Potential avenues may include a new participation model or modifications to the existing Co-located Resources, Hybrid Co-located Resource, and Behind the Meter Net Generator models.

1.3 Project Justification

Achieving New York's decarbonization goals will require a substantial amount of Dispatchable Emission Free Resources (DEFs) in order to complement and balance intermittent generation sources. Clean hydrogen is widely understood to be a necessary fuel source for DEFs, and the Clean Hydrogen Project is intended to develop market rules that will enable the development and deployment of clean hydrogen electrolyzers in New York State powered by co-located no-n-emitting generation.

Per NYSERDA: "As New York transitions to a clean energy economy, we are seeking to understand and explore all resources that may be available as part of the State's comprehensive decarbonization strategy, including assessing the role of green hydrogen. Supporting innovation and studying all technologies will enable us to remain on the cutting edge of evolving solutions that will complement our existing decarbonization efforts in achieving the State's ambitious Climate Act goals." From the 2021-2040 Outlook: "As more wind, solar, and storage plants are added to the grid, DEFs must be developed and added to the system at scale to reliably serve demand when intermittent generation is unavailable. The lead time necessary for research, development, permitting, and construction of DEFs will require action well in advance of 2040 if state policy mandates under the CLCPA are to be achieved. Fossil generation will likely need to be retained past the 2040 mandates to keep the system reliable if DEF technology is not in operation."

[On April 7, NYSERDA, of behalf of the seven state Northeast Regional Clean Hydrogen Hub, applied to the U.S. Department of Energy \(DOE\) for a \\$1.25 billion share of \\$8 billion in federal hydrogen hub funding available as part of the Infrastructure Investment and Jobs Act. The proposal advances \\$3.62 billion of direct hydrogen investments advancing clean electrolytic hydrogen](#)

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[production, consumption, and infrastructure projects for hard to decarbonize sectors. As a result, clean electrolytic hydrogen projects and production will likely increase substantially.](#)