

# Infrastructure Investment & Jobs Act Regional Hydrogen Hub

nationalgrid

The Infrastructure Investment & Jobs Act (IIJA) was passed by the US Congress in November 2021 and will fund critical investments in our nation's energy infrastructure, building a path to an equitable, clean energy future.

One section of the IIJA (Sec. 40314) hopes to accelerate commercialization of production, processing, delivery, storage, and end-use of green hydrogen.

▶ **\$8 Billion** | Total funds available for creation of at least four regional clean hydrogen hubs

## Green H2 is a cost-effective decarbonization pathway for the Northeast

Regional hydrogen hubs will accelerate our path to net-zero through a connected network of green H2 producers, consumers and connective infrastructure. Green hydrogen can use existing infrastructure to help customers reduce emissions, changing the nature of heating and moving hard-to-decarbonize industries, such as manufacturing and heavy transport, forward. Developing regional hydrogen hubs will set the foundation for hydrogen's role in the energy transition.

## National Grid entered an agreement to collaborate with state governments and other major hydrogen ecosystem partners to propose a regional clean energy hydrogen hub in the northeast US.

This partnership presents a coordinated, multi-state approach to a hydrogen hub that connects the entire value chain of hydrogen producers, users, technology and equipment manufacturers, as well as the research and development community including national labs and universities. A northeast hub would be one of at least four designated by the IIJA.

## National Grid has demonstrated the ability to develop hydrogen projects

1. Partnered with the Town of Hempstead in our Hygrid project, extending the existing green hydrogen production, storage, and fuel-dispensing facility to heat more than 800 homes and fuel a minimum of 10 vehicles per day at Point Lookout. This is one of the first and largest green hydrogen projects in the country.
2. Working with NYSERDA and the Advanced Energy and Research Technology Center at Stony Brook University to assess the compatibility of hydrogen blending in National Grid's existing gas infrastructure.
3. Partnering with the Standard Hydrogen Corporation of Albany, NY to develop the nation's first multi-use, renewable hydrogen-based energy storage and delivery system that is regulator approved, with hydrogen shareholder funding of \$1.7M.

## Hydrogen priorities\*:



**Social Equity:** Decarbonizing transportation and heavy industry will reduce pollution, make environmental justice communities more livable, and increase community health.



**Sustainability and Resilience:** Green H2 creates resilience both as a new energy supply where gas is constrained, and as a firming resource to the electric grid when renewables and energy storage are not available.



## Job Creation and Workforce Preparedness:

Hard-to-decarbonize industries can remain in a region calling for full decarbonization. Production, storage and transport of H2 will create new businesses and job growth.

\*Based on priorities the Biden Administration identified for the IIJA

## Customer benefits:

- ☑ Enables the **transition to a zero-fossil future**, as burning H2 does not produce carbon dioxide.
- ☑ Facilitates **decarbonization of multiple sectors**, as H2 is a versatile fuel that can be used for heating, energy storage, power generation, transportation, and industry.
- ☑ Underground assets are **resilient** against natural disasters. Energy storage and dispatchable generation from hydrogen support a **reliable grid with significant renewables**.
- ☑ **Cost effective:** Customers can use existing heating equipment and appliances and avoid new investment.
- ☑ Customers can choose the source of energy that **fits their needs**.