



## PEAK Statement on NYPA Hydrogen Combustion Pilot Study

Date: September 26, 2022

**PEAK Coalition maintains our steadfast opposition to the combustion of hydrogen, including green hydrogen, in power generation facilities. The results from New York Power Authority’s Green Hydrogen Demonstration Project in Long Island confirms our concerns regarding harmful nitrogen oxides (NOx) emission and a troubling future for continued reliance on burning alternative fuels.**

The [reported findings](#) of the pilot study in Brentwood confirm that hydrogen combustion increases nitrogen oxides (NOx) emission, a pollutant with proven links to respiratory and cardiovascular illnesses. Environmental justice communities located close to power plants are in danger of being exposed to NOx, which is toxic to the human respiratory system and increases risks to diseases such as COVID-19. Any continuation in NOx emissions is a failure to undo historic harm in communities that endured prolonged exposure to air pollutants.

The pilot project, which studied the impacts of blending and burning a hydrogen mix of 5% to 44% with fracked gas at the New York Power Authority’s (NYPA) Brentwood Power State, resulted in the following concerning findings:

- NOx levels increased by up to 24% as the fraction of hydrogen increased.
- To keep NOx air emissions within permitted limits, the plant had to significantly increase water consumption, a troubling red flag as Long Island continues to experience [severe drought conditions](#).
- Blending hydrogen with fracked gas yields no more than marginal reductions in greenhouse gas emissions, carbon emissions were reduced by only 14% at a 35% hydrogen mix, which is doubly concerning considering that hydrogen is itself an [indirect greenhouse gas](#).
- Green hydrogen is scarce, expensive, and impractical as a fuel source. It is telling that for this study, NYPA trucked in hydrogen from Quebec to Long Island.

The results of NYPA’s study combusting hydrogen gas blended with fracked gas at a Long Island power plant confirms the concerns of PEAK Coalition and other climate justice organizations: combustion of so-called “green” hydrogen in power plants is [dirty, impractical, and expensive](#). New York State Department of Environmental Conservation (DEC) has supported this position by [rejecting](#) recent permit applications that included the potential use of hydrogen combustion as an alternative to gas. As part of their decision, DEC concluded that

blends of hydrogen jeopardizes a power plant's compliance with the zero emissions by 2040 mandate of the CLCPA and is expected to cause higher NOx emissions. NYPA's demonstration project provides data that validates DEC's concerns and further proves that burning hydrogen in power plants will do little to solve the climate crisis while continuing to subject disadvantaged and other environmental justice communities to severe and unjust harms.

NYPA's decision to not immediately pursue any additional hydrogen combustion projects and prioritize storage opportunities for retiring peaker plants is an optimistic sign. The United States Department of Energy's [Draft Clean Hydrogen Strategy and Roadmap](#) similarly noted the difficulty of burning hydrogen for power generation and highlighted its NOx emissions. We strongly maintain that combustion of any kind would not be in line with New York's landmark climate law.

**PEAK Coalition continues to call on NYPA and the power industry to turn away risky power generation experiments and redirect public and ratepayer funds toward rapid deployment of proven, clean renewable energy and battery storage solutions.**

Contact: Daniel Chu [daniel@nyc-eja.org](mailto:daniel@nyc-eja.org)