

## Hydrogen is a False Solution

The fossil fuel industry is hyping hydrogen (H<sub>2</sub>) as a source of clean energy, while in reality many hydrogen projects would lock New York State into continued fossil fuel use and additional investments in fossil fuel infrastructure. The industry is requesting that the State leave “hydrogen” as an open-ended option to achieve the CLCPA greenhouse gas emission targets - speaking of hydrogen’s potential to be mixed with fracked gas to dilute emissions and operate our transportation and heating and cooling systems. This sales pitch ignores the reality of the limitations of hydrogen. Also, a large-scale commitment to hydrogen would divert important investments in the development of proven renewable energy solutions.

The only truly clean hydrogen project is “green” hydrogen. “Green” hydrogen is produced by utilizing renewable electricity sourced from solar, wind and hydro to power an electrolysis process to break down water molecules (H<sub>2</sub>O) into hydrogen and oxygen. The electrolysis process is extremely energy intensive. The initial major drawback of manufacturing green hydrogen is that the technique wastes some 20% to 50% of the renewable electricity used in the process. NYS needs more electricity from renewable sources to power electric cars, trucks, buses and trains in the transportation sector and heat pumps for geothermal and air-to-air heating and cooling in the building sector. Focusing on producing green hydrogen for these purposes will prevent the State from reaching its 2030 goal of providing 70% of our electricity from renewables.

Any green hydrogen which is manufactured should be utilized only under limited circumstances:

- A. Green hydrogen is a promising solution only for uses that cannot otherwise directly rely on clean electricity, which is much more efficient. Industry advocacy for hydrogen-powered vehicles and heating and cooling systems do not meet these criteria.
- B. Green hydrogen should not be used to justify the buildout of facilities that otherwise increase pollution or fossil fuel uses. Mixing hydrogen with fracked gas only aids in keeping gas in business.
- C. If green hydrogen is being used, the goal should be to switch to 100% green hydrogen once the technology is available. We should not support projects that label themselves as “sustainable” because their fuel source includes a small fraction of hydrogen where the lion's share is in fracked gas.