

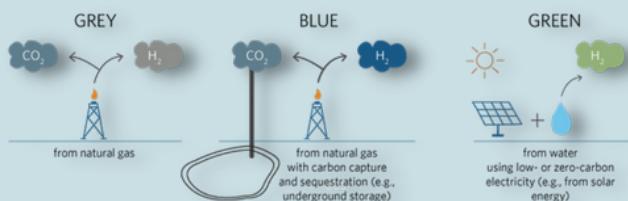
HYDROGEN IS NOT CLEAN

NO FALSE SOLUTIONS - "CLEAN" HYDROGEN IS AN OXYMORON

"Green" hydrogen may have a place in reducing emissions, but more than 99.8% of hydrogen is produced using enormous quantities of fracked gas, including both "blue" hydrogen, in which carbon emissions from production processes are sequestered using as yet unproven technology, and "grey" hydrogen, which results in many times more carbon emissions than actual hydrogen produced. Hydrogen emissions are 20% greater than directly burning natural gas or coal for heat, and 60% greater than burning diesel oil for heat.

In 2022 Hydrogen Hub Development legislation was introduced in the NM legislature four times, and was defeated each time, but the Governor ignored the people's will and signed a Memorandum of Understanding with adjoining states to seek federal dollars to develop this dangerous new industry in New Mexico, an industry that will increase pollution and increase our dependence on fossil fuels for revenue.

UNDERSTANDING HYDROGEN PRODUCTION



Hydrogen burns clean but relies on fossil fuels for its production, threatening our Climate and Public Health.

HYDROGEN DEVELOPMENT WILL SEND US SPRINTING TOWARDS CLIMATE CATASTROPHE BECAUSE:

1. Hydrogen has no environmental benefits. Hydrogen production increases climate-warming emissions.

- Hydrogen production is responsible for an enormous amount of greenhouse gas pollution, particularly due to the release of fugitive methane; Oil and gas companies produce 99.8% of the United States' hydrogen supply from gas. Globally, less than 1 percent of hydrogen is produced through electrolysis, and less than 0.02% is green (i.e., powered by renewable electricity) [4].
- Blue hydrogen emissions are 20% greater than directly burning natural gas or coal for heat, and 60% greater than burning diesel oil for heat.
- Green hydrogen production requires an enormous amount of fresh water and is not feasible for production in New Mexico.

2. Hydrogen is not economical. There is no cost benefit to hydrogen as fuel.

- Hydrogen-based electricity generation is more costly than solar + wind + battery storage.
- Fuel cells will remain more expensive than simpler battery systems. Hydrogen has value today mainly in ammonia fertilizer production and oil refining.
- The electric transportation industry based on batteries is already dominant. With state, federal, and private investments, a robust network of EV charging stations is being developed to support trucking and private vehicles. Virtually no such investment has been made in hydrogen fueling stations.

3. Hydrogen production and distribution is technically complex, leading to cost overruns, failed projects and stranded assets.

- Hydrogen is the smallest atom, highly reactive and difficult to contain. It embrittles pipelines, making it difficult and dangerous to transport and use without specialized technology.

4. "Clean" hydrogen viability depends on another false solution that simply doesn't work: Carbon Capture and Storage (CCS). CCS has repeatedly failed to achieve results, causing billions in public and private losses. High profile examples include Petra Nova, shut down after receiving \$190M in public funds and capturing no CO₂, the Kemper project, shut down after spending \$270M in public dollars, and many more. Tim Baxter, a senior researcher with the Australian Climate Council, reported that he was not aware of a single large carbon capture and storage project linked to fossil fuels in the world that had delivered on time, on budget, and captured the agreed amount of carbon. Investment in CCS will inevitably result in stranded assets and millions of public dollars wasted.



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**WE'RE RUNNING OUT OF TIME AND WE NEED REAL SOLUTIONS:
UNLEASH NEW MEXICO'S ABUNDANT SOLAR & WIND**