

Understanding HB 4 – “Hydrogen Hub Development Act”

Major concerns:

1. **NO FALSE SOLUTIONS – NO HYDROGEN HUB; VOTE AGAINST HB 4: *this 68-page bill doesn’t require any carbon reductions whatsoever. This bill encourages the increase of greenhouse gas emissions.***

The Oil & Gas Industry is Successfully Campaigning to Increase Reliance on Hydrogen Instead of Discredited Coal and Polluting Gas!

Orwellian, the definition of “clean hydrogen” in this bill is what *clean coal* was years ago. (§2 D) There is no “clean hydrogen”!

The only possible hydrogen for a zero-emission future requires a transition away from producing it with polluting technologies, meaning no fracked gas. Period. Hydrogen production—more than **99.8 % of which is not green**—is responsible for an enormous amount of greenhouse gas pollution; far from being low carbon, greenhouse gas emissions from blue hydrogen are quite high, particularly due to the release of fugitive methane. **Blue hydrogen emissions are 20% greater than burning natural gas or coal for heat and 60% greater than burning diesel oil for heat.** Oil and gas (O&G) companies produce almost all 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 hydrogen (i.e., powered by renewable electricity) and that is enormously water intensive, and can’t happen in New Mexico because we don’t have the required water. Using hydrogen will not break our dependence on fossil fuels unless we quit relying on fossil fuels to produce hydrogen.

While the bill promises only to subsidize clean hydrogen, it does not account for pollution from gas production or provide for actual enforcement, something the agencies have failed to do.

2. **There is NO proven “permanent sequestration of carbon dioxide” – IT’S A SCAM!**

The latest ruse is that carbon capture will enable this new savior for our climate. But the reality is not as politicians claim. The idea behind the permanent sequestration of carbon dioxide is a process whereby the CO₂ produced when generating hydrogen is captured and buried. Except there are huge debates if it works at all, including failures of some of the biggest projects such as [Chevron’s Gorgon project in Western Australia](#), the largest one in the world. This was supposed to bury 80% of the CO₂ from gas wells in Western Australia over 5 years, but hasn’t even achieved half that, and doesn’t do anything for the gases burnt to liquify output for export.¹

3. **Yikes: Fugitive Emissions; What is that?**

¹ <https://www.forbes.com/sites/jamesmorris/2021/09/25/is-carbon-capture-another-fossil-fuel-industry-con/?sh=75dc51335ef3>

“Fugitive emissions” are global warming gas emissions (methane) that escape into the air during the process of hydrogen production. Methane is 84 times worse for the greenhouse effect than CO₂; methane seeps into our lungs and rains down onto our agricultural fields for us to eat. Poison. Immense amounts of methane are currently escaping from oil and gas sites that is helping to warm the planet at an alarming rate!² There are additional toxins that are produced during the O&G process: methane and ethane, both greenhouse gases, as well as pollutants called volatile organic compounds. We can’t afford another re-branded O&G pollution bonanza.

Workers are particularly vulnerable as the leaking emissions are damaging to health and workers often have NO protection. The O&G industry argues that frequent monitoring would not be cost-effective and stricter regulation would be “costly and burdensome.” Currently, as long as the O&G industry reports fugitive emissions there are no penalties or permits pulled.

4. Who Gains Most From Hydrogen?

The benefits appear to be for the incumbent Oil & Gas companies. The truly green version of hydrogen, produced via electrolysis, cuts the oil and gas industry out of the picture and really isn’t possible in New Mexico, because we don’t have the water to spare.

5. Politicians Avoid *Keep it In The Ground* at all Costs so in Cahoots with O&G Develop Complex Schemes to Navigate Financially Tough Political Decisions.

Vested interests in the fossil fuel industry are waging an increasingly vicious battle against 100% renewable energy, including the impending electrification of our transportation and housing sector, which is the only way to address the climate crisis we are in.

Why is this dangerous?

This bill supports the expansion of gas pipelines³ and the transportation of more fracked gas; it further increases fossil fuel dependency and development.

6. The Bill Creates a Hydrogen DEVELOPMENT Board and Allows O&G to Access the Credit of the State of New Mexico

That will set us back and undermine our solar and wind proficiency and clean energy development. §§2 B, 5 and 6. WE don’t need more bureaucracy we need clean energy that solves our climate crisis predicament!

The New Mexico finance authority shall allow the hydrogen development board to issue public bonds and refund bonds by its public-private authority to continue hydrogen development via public authorization – *essentially use the credit of the people to issue low interest financing to*

² <https://www.nytimes.com/interactive/2019/12/12/climate/texas-methane-super-emitters.html>

North American shale gas production may be responsible for about a third of the global increase in methane emissions over the past decade.

³ §3 B (1)b; §3 B (4)

fund MORE GAS projects (“adopt and promulgate rules as necessary relating to the issuance of bonds for hydrogen hub projects.”) §8 A-I.

Money in the hydrogen hub development fund may be used to provide grants and issue revenue bonds. §§ 9 and 10. The New Mexico finance authority “may issue refunding bonds for the purpose of refinancing” for hydrogen projects. §11. **This further exposes New Mexicans to bailouts of the O&G industry.**

Over the past six years, there have been **266 oil and gas producer bankruptcies**. In the same period, **306 oilfield services and midstream companies have filed for bankruptcy**, bringing the combined North American industry total to 572.⁴

7. A Bad Idea, Plus NO Taxes: Income Tax Credit for Hydrogen

A clean hydrogen production facility is eligible for tax credits: “the tax credit shall equal the cost of producing hydrogen in New Mexico”. §15 D. If this is such a good idea why should hydrogen production facilities be relieved from paying taxes? This is allegedly a way to increase money for New Mexico. But perhaps the opposite is true: not only will pollution increase, absent hydrogen landlords will abscond with money leaving useless facilities in their wake.

8. We have to pay gross receipts for food, but hydrogen polluting plants do not

Section 17: People without financial means **MUST** pay taxes but large energy and hedge fund corporations that peddle hydrogen... receive a “get-out-of-jail-free card!”

Clean hydrogen is a smoke screen: In the last 20 years, almost 450 low-carbon hydrogen demonstration projects were announced, and the list keeps growing, according to the International Energy Agency’s [database](#). However, technologies for producing green hydrogen are as yet nascent and the whole process is expensive. Today, green hydrogen cannot compete with other energy sources, or with grey hydrogen produced from fossil fuels.⁵

While theoretically, carbon emissions are captured, a recent study from scientists at Cornell and Stanford universities says blue hydrogen may be up to 20% worse for the environment than directly burning methane. “The carbon capture and storage technology used in the production of this fossil hydrogen is extremely expensive and so far unproven on the scale that would be required,” said Silvia Pastorelli. *Id.*

⁴ https://www.haynesboone.com/-/media/project/haynesboone/haynesboone/pdfs/energy_bankruptcy_reports/oil_patch_bankruptcy_monitor.pdf?rev=61c2606a5be547598c8d716d1a795c39&hash=97ECA4B149560404B19497FA37CB2B50#:~:text=Over%20the%20past%20six%20years,American%20industry%20total%20to%20572.

⁵ <https://sciencebusiness.net/climate-news/news/clean-hydrogen-smoke-screen-or-future-energy>

9. Taxpayers should not be on the hook for unproven and potentially harmful activities.

Too late; Rules Promulgated AFTER O&G pollutes doesn't make sense: "No later than July 1, 2024, the department shall petition the environmental improvement board to promulgate rules that consider and address the implications for greenhouse gas emissions resulting from the generation and use of hydrogen in New Mexico." Section 18 C.

Should the harm begin and then the government *petition* for rules to start to "control" the negative activity?! – again, that makes NO sense. If the government were serious about protecting our public health and welfare it would not propose such nonsense. Tax credits begin immediately and are specifically written into this law, but rules to protect our health aren't petitioned for until 2024, which guarantees that public health protections won't be codified until at least three and a half years from now.

10. Exemptions from Fair & Non-discriminatory practices – that's exactly what the O&G companies need

The hydrogen companies are also *exempt* from fair procurement codes – hardly relatively significant given the level of impropriety of this act, but we couldn't help from acknowledging the extent to which this government appeases the O&G industry.

Hydrogen companies are exempted from most state standards regarding contracts and expenditures, including "retirement and other benefits" (§19 P) AND state procurement codes for design, engineering, financing, and construction. §19 S.

11. Redefines Renewable Energy to include "responsibly sourced gas" which is "gas used or purchased to produce hydrogen" in a way that is inconsistent with Reality and Prior NM Law:

A "Clean hydrogen electric generation facility" means an electric generation facility that permits the emission of carbon dioxide §20A. This is NOT CLEAN! This creates a new industry for oil and gas not to address the climate crisis.

The bill defines the "permanent sequestration of carbon dioxide" which means "carbon dioxide injected pursuant to a monitoring and verification plan." §20 C. In addition to the fact that there are no active hydrogen plants that sequester carbon dioxide, less than 1% of hydrogen that is being produced is "clean." This is a false solution to address the climate crisis. The current administration already exhibits little to no meaningful regulatory oversight for oil and gas;⁶ All

⁶ On 11/11, 2021, the State Engineer announced that he will step down due to "persistent lack of financial resources" and inadequate staffing ("67 fewer employees now than it did under then-Gov. Bill Richardson a decade ago"). "NM's top water official to step down, citing understaffing," *Albuquerque Journal*, 11/11/2021, <https://www.abqjournal.com/2445533/nms-top-water-official-to-step-down-citing-understaffing.html>

of this is dependent on actual standards and enforcement, which heretofore is non-existent. The Lujan Grisham administration has evidenced regulatory failure including, but not limited to the failure of her agencies to supervise, control, manage, and enforce. Hence, a new “monitoring and verification” scheme is inconsistent with the health and welfare of New Mexicans.

§20 M discusses: “responsibly sourced gas” which is defined as “gas used or purchased to produce hydrogen,” but there is no such thing because *hydrogen adds emissions* to the atmosphere and therefore *hydrogen production is irresponsible*. There are NO effective standards, whether from the federal government or standards from an “independent organization and certification are approved by the department of environment.” Is the Legislature actually proposing that an “independent” O&G funded organization set the standards? Apparently, Michelle Lujan Grisham thinks that this would be a nifty idea: “The components are pretty ready, we’re not quite there for the deployment. There are other issues in the infrastructure and we expect industry to clean it all up.”

If the Legislature is actually concerned with regulating hydrogen in New Mexico it can write a simple bill that forbids any hydrogen that creates any emissions into the atmosphere during its life-cycle.

We need a law in place, now, that calls for the direct reduction of pollution caused by oil and gas development in order to protect the health, homes, land and cultural resources of all people in New Mexico.

See also, “PRC needs full funding to do its job,” *Santa Fe New Mexican*, 11/14/2021, https://www.santafenewmexican.com/opinion/my_view/prc-needs-full-funding-to-do-its-job/article_4629f488-4364-11ec-a8bc-a380bf240fa0.html (“Unfortunately, recent budgets have proved insufficient to hire and retain staff and outside experts to help guide the commission in an ever-increasingly complex global energy and regulatory environment. ... [T]he National Regulatory Research Institute [concluded]: This death-spiral-type condition [of increasing demands and shrinking resources] ... has seriously jeopardized the capability of the PRC to protect the public interest.”) Lastly, the Oil Conservation Division has failed to curtail or penalize the rampant and constant discharges of “produced water” (toxic waste flowback from oil and gas wells) and since the Lujan Grisham administration has been office these discharges have *increased* and are occurring at a rate of approximately 4 per day, contaminating the Earth and water supplies on and off Pueblo lands. The Lujan Grisham administration has failed to prevent toxic waste discharge from oil & gas wells; in fact, discharges have *increased* in the last 3 years. Since the time Governor Lujan Grisham took office one company XTO Energy, has had 2,214 spills – contaminating the Earth on an average of more than two times a day; another company, Oxy USA - 973 spills, nearly one spill a day, every day since Governor Lujan Grisham’s administration has overseen the O&G sector. This doesn’t address the pollution contamination of at least 50 other companies that regularly release cancer-causing contaminated waste onto the Earth and into our water supply.