

Hydrogen Bills Ignite Heated Debate Prior To Introduction

Gov. Michelle Lujan Grisham is promoting a new “Hydrogen Hub Act” as “signature” legislation in this year’s session, which begins next Tuesday, but it could face formidable opposition given public concerns about just how “clean” hydrogen production really is.

State officials are expected this week to pre-file the governor’s bill, after completing revisions to it following public feedback on the initial draft, which the state circulated in November among environmental organizations, industry representatives and others.

Rep. Patricia Lundstrom, a Gallup Democrat and chair of the Legislative Finance Committee, also is expected to pre-file a separate hydrogen bill this week that she’s worked on since last June. That’s also been widely circulated, and re-circulated, for feedback from many groups, leading to seven different drafts of the legislation and more changes still underway, Lundstrom told the Journal.

But both bills face rough waters in the Legislature, with almost unanimous opposition from environmental organizations, and only tepid support so far among Democratic legislators. That is in contrast to enthusiastic backing from local business associations and investors who hope to pursue hydrogen projects in New Mexico.

State officials tout hydrogen as a potential game changer in the transition to a clean energy economy, because it’s a non-carbon-emitting fuel that proponents say can help speed decarbonization in everything from electric generation to long-haul shipping and heavy industrial processes. And, given New Mexico’s vast deposits of natural gas, which is currently used to produce hydrogen, an entirely new industry could rapidly emerge here based on the extensive gas-related infrastructure and skilled labor force already in place.

That could give New Mexico substantial advantages over other states that are also aggressively pursuing hydrogen production as the nation works to develop new energy technologies to achieve carbon neutrality by mid-century, said state Environment

Department Secretary James Kenney, who is leading the effort to develop and promote the governor's Hydrogen Hub Act.

In addition, the legislation could boost state chances for winning a slice of \$8 billion in federal funding to build four different "hydrogen hub" demonstration projects around the country, which is included in President Joe Biden's \$1.2 trillion infrastructure investment plan, approved last fall.

"The hydrogen economy has clearly arrived at the national and international levels," Kenney told the Journal. "In New Mexico, we have real opportunities to pursue it, while also spurring economic growth around the state."

But local environmentalists are firmly opposed, largely because nearly all hydrogen today is produced with natural gas in a process that pulls hydrogen molecules out of methane. That means perpetuating, and likely increasing, natural gas production to build out the hydrogen industry, potentially offsetting any significant carbon reduction from hydrogen consumption, according to environmentalists. In fact, emissions could potentially increase as more natural gas is pulled from the ground, and more methane – a potent greenhouse gas – continues escaping into the atmosphere.

Industry investors expect to lower emissions through carbon-capture technology, whereby the CO₂ emitted in the hydrogen production process is sequestered and then deposited in deep underground geological formations. But that's a highly controversial process that environmentalists say has yet to be proven effective.

As a result, nearly 30 environmental groups called on the state in December to discard the governor's bill in the current session and instead initiate a broad, public process to fully evaluate the pros and cons of pursuing a hydrogen economy in New Mexico.

"Boiled to its essence, the (Hydrogen Hub Act) discussion draft is conceptually and fatally flawed," the group wrote in response to the November draft of the bill. "... The state should fundamentally take a step back, assess whether fossil gas hydrogen is appropriate for New Mexico, and defer new hydrogen legislation until it completes a broad, meaningful stakeholder process."

Although final versions of the governor's bill and Lundstrom's legislation are still pending, the initial drafts outline a broad suite of incentives to encourage hydrogen development.

The governor's proposal called for a slate of tax breaks for investors, including gross receipts deductions and income tax credits for investments in hydrogen production facilities, hydrogen-based electric generation plants, fueling stations and distribution infrastructure.

Projects would need to meet a new set of emissions standards to qualify, which the initial draft set at nine kilograms of carbon dioxide for every one kilogram of hydrogen, at least to start. The limits would then decline every two years to reach a three-to-one ratio by 2030.

The Environment Department would determine incentive eligibility, and the state Environmental Improvement Board would set new rules to measure carbon intensity for certification of projects.

In addition, the Energy, Minerals and Natural Resources Department would be charged with reviewing existing laws and regulations governing carbon capture and sequestration to recommend potential changes for things like long-term responsibility and liability for carbon stored underground.

Lundstrom's bill, meanwhile, would establish designated "hydrogen hubs" around the state. It would authorize public-private partnerships to pursue projects backed by state funding, including grants of up to \$250,000 to evaluate proposed projects, and state loans if projects move forward.

All government money – including a one-time state appropriation from the general fund – would be administered by the state Finance Authority, with oversight from a new Hydrogen Hub Development Board. And all state financing for projects would require at least 50% matching funds from private partners.

Lundstrom told the Journal she expected to request a \$120 million general fund appropriation for hydrogen hub development. But the Legislative Finance Committee's proposed budget for fiscal year 2023 actually includes a \$150 million appropriation for hydrogen development in New Mexico.

Lundstrom said she's working with state officials to harmonize the two bills.

"We're working very collaboratively with the governor and her staff, and with the Environment and the Energy Minerals Natural Resources departments," Lundstrom told the Journal.

Kenney said state officials are trying to address environmental concerns in the final bill before filing, but he expects at least some backing from both sides of the aisle.

“Reactions have run the gamut, from concern about environmental issues to excitement about the opportunities,” he said. “I’m optimistic for some bipartisan support moving forward.”

But some Democratic legislators have voiced similar concerns as environmental organizations. Senate President Pro Tem Mimi Stewart said she’s waiting to fully study the bills once they’re filed, but she’s apprehensive about whether gas-based hydrogen production can be considered a “clean fuel,” given all the emissions associated with natural gas production.

“We don’t have a good record in New Mexico on capturing methane and other emissions, so I’m concerned about going full steam ahead with carbon capture for hydrogen when we can’t control the methane spewing out of our state at the current time,” Stewart told the Journal. “... I’ve talked with a number of my colleagues, and I haven’t seen anyone yet who is gung-ho on hydrogen production in the state. We all need to be concerned whether it’s something that can benefit New Mexico, rather than what looks to be another problematic, emissions-spewing project.”