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## FISCAL IMPACT REPORT

**SPONSOR** HCEDC **ORIGINAL DATE** 2/8/22  
**LAST UPDATED** 2/11/22 **HB** 228/ec/HEDCS  
**SHORT TITLE** Hydrogen Hub Development Act **SB** \_\_\_\_\_  
**ANALYST** Wan/Torres, I./Graeser/  
Torres, J.

### ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)

	FY22	FY23	FY24	3 Year Total Cost	Recurring or Nonrecurring	Fund Affected
<b>Total</b>	\$100.0	\$600.0	\$600.0	\$1,300.0	Recurring	Hydrogen Hub Project Fund

(Parenthesis ( ) Indicate Expenditure Decreases)

Relates to Appropriation in the General Appropriation Act  
 Conflicts with HB55/HJCS  
 Conflicts with HB4

#### SOURCES OF INFORMATION

LFC Files

#### Responses Received From

New Mexico Finance Authority (NMFA)

#### Responses Received on HB4 From

Office of the Attorney General (NMAG)  
 Economic Development Department (EDD)  
 Energy, Minerals and Natural Resources Department (EMNRD)  
 Indian Affairs Department (IAD)  
 Environment Department (NMED)

Note: LFC staff have retained relevant agency comments on HB4 for this analysis. Reference in this FIR to HB4 and not HB228 is intentional.

#### SUMMARY

##### Synopsis of Bill

The House Appropriations and Finance Committee substitute for House Bill 228 (HB228/HCEDCS) facilitates the development of hydrogen production in New Mexico by authorizing the state and its political subdivisions (“public partners”) to enter into public-private partnership agreements and establishing grant and loan programs to help finance hydrogen hub

projects under such agreements. The legislation also creates a process for designating a “hydrogen hub,” defined in the bill as a distinct geographic area within which proposed projects that create or modify infrastructure for the generation of power and the production, storage, transport, and consumption of hydrogen may receive state-funded grants or loans.

Section 2 of the bill sets forth definitions of terms used in the Hydrogen Hub Development Act, including: apprenticeship program, carbon intensity, clean hydrogen, clean hydrogen electric generation facility, decarbonization, greenhouse gas emissions, GREET model, hard-to-decarbonize industry, hydrogen hub, hydrogen hub project, life cycle analysis, permanent sequestration of carbon dioxide, public-private partnership, and responsibly sourced gas.

Section 3 establishes criteria to be used by the hydrogen hub development board (created in Section 5) in deciding whether to designate a specific geographic area as a “hydrogen hub.” Section 4 lists requirements and restrictions for public-private partnerships and Section 5 creates a hydrogen hub development board. Board members will include the secretaries of Economic Development Department, Department of Finance and Administration, Energy, Minerals and Natural Resources Department, Environment Department, and Taxation and Revenue Department; the chief executive officer of the New Mexico Finance Authority (NMFA); and five public members appointed by the Legislative Council. The board will review and approve or disapprove proposed hydrogen hub areas and proposed public-private partnerships as well as grant and loan applications. The board is administratively attached to the Department of Environment.

Powers and duties of the hydrogen hub development board, which include approving proposed hydrogen hubs, public-private partnership agreements, and grants and loans for proposed hydrogen hub projects, are set forth in Section 6.

Section 7 of the bill establishes criteria the hydrogen hub development board must use in deciding whether to approve a proposed public-private partnership agreement for a hydrogen hub project. The following criteria are mandatory:

- 1) The proposed project is a clean hydrogen electric generation facility, as defined in Section 2 of the bill, or will generate or use only clean hydrogen;
- 2) The proposed project provides for permanent sequestration of carbon dioxide created in the production of hydrogen, either by the creator or a purchaser of the carbon dioxide; and
- 3) The proposed project certifies that methane gas produced or purchased for the generation of hydrogen is responsibly sourced gas, as defined in Section 2.

Other criteria the board must consider include, but are not limited to, technological feasibility, financial feasibility, impact on local employment base and an economically distressed community, net environmental impact, impact on taxable revenue for state and local governments, and whether construction of the project will employ apprentices from an apprenticeship program.

Section 8 creates new duties for NMFA, including providing staff support to the hydrogen hub development board for financial analysis of proposed projects, administering grants and loans for approved projects, and issuing bonds for projects.

Section 9 creates the hydrogen hub project fund, which will be administered by NMFA to provide grants and loans to eligible applicants and support administrative costs of the board and NMFA.

The bill allows NMFA to make grants of up to \$250 thousand to public partners for cost-benefit analyses regarding public-private partnerships on proposed hydrogen projects. The fund may also be used to provide grants and loans for financing hydrogen hub projects through public-private partnerships. Section 9 also lays out additional requirements that must be met to receive a grant or loan from the fund, including that grants or loans may only be made to public partners and Indian nations, tribes, and pueblos. Money in the fund may also be appropriated by the Legislature to the hydrogen hub development board, NMED, and NMFA for administrative and reimbursable costs.

Sections 10 and 11 give NMFA authority to issue revenue bonds and refunding bonds, respectively, for the purposes authorized in the bill, and Section 12 specifies that the bonds shall not create an obligation, debt, or liability of the state or its political subdivisions. The pledged revenues for revenue bonds issued by NMFA shall be fees, charges, lease payments, installment sale payments, or other revenue sources of a hydrogen hub project for any of the purposes authorized by the bill.

Section 15 adds an exemption to the procurement code for agreements and contracts entered into pursuant to the legislation.

Sections 16 and 17 amend the Rural Electric Cooperative Act and the Renewable Energy Act to allow power generated by a clean hydrogen electric facility that meets CI standards more stringent than those required for clean hydrogen but less stringent than required for carbon-negative hydrogen to be considered part of the state's renewable energy portfolio.

This bill contains an emergency clause and would become effective immediately upon signature by the governor.

### **FISCAL IMPLICATIONS**

House Bill 2 appropriates \$125 million (nonrecurring) to the hydrogen hub project fund for grants, loans, and administrative expenses of NMED and NMFA, contingent on enactment of this or similar legislation. The recommended language includes that each agency may spend up to \$500 thousand of the appropriation for their costs associated with carrying out their responsibilities under the bill.

NMFA projects additional annual operating expenses of \$600 thousand for FTE and other administrative costs associated with its new duties established by HB228/HCEDCS. As this estimate exceeds the current recommended amount allocated for NMFA's administrative expenses and Section 9(F) requires legislative approval for appropriations from the hydrogen hub project fund, reimbursement for these costs would depend on future legislative appropriations from the fund to NMFA (see "Amendments").

Any expenses NMED incurs related to supporting the hydrogen hub development board could be covered using the agency's \$650 thousand operating budget increase for a Climate Change Bureau that is in HB2.

### **SIGNIFICANT ISSUES**

The federal Infrastructure Investment and Jobs Act of 2021 (IIJA) that was signed November 15, 2021, includes \$8 billion for federal fiscal years 2022-2026 to be distributed as grants to four

hydrogen hub demonstration projects to be selected by the U.S. Department of Energy (DOE). HB227/HAFCS strengthens New Mexico's position in competing for one of the four clean hydrogen hubs by establishing a public-private partnership structure that can be responsive to private interest in developing a hydrogen hub, or hubs, in New Mexico.

In comments on HB4, the Economic Development Department (EDD) expressed the view that a hydrogen economy should be a key component of New Mexico's economic growth strategy. In EDD's recently released 20-year strategic plan, green and sustainable energy, including clean hydrogen, is named as one of nine target industries the state should actively pursue to diversify and grow the economy. EDD explains, "hydrogen is widely regarded as critical for the transition away from carbon-intensive energies to those based on renewables as it is one of the few energy sources that can be used for power generation, transportation, and industries processes," and "New Mexico's current strengths in natural gas make the state a competitive location for the near-term build out of blue hydrogen production, which requires natural gas."

The proposed Escalante H<sub>2</sub>Power project would be the world's first conversion of a coal-fired power plant to a hydrogen production facility, and EDD believes [HB4] is an important policy step towards that accomplishment; the agency states, "By becoming an early leader in hydrogen, New Mexico could see large scale investments that could produce high-wage jobs throughout the state."

From an environmental standpoint, vigorous debate regarding the emissions impact of hydrogen is ongoing, but NMED submits that hydrogen production tax credits will help New Mexico decarbonize its energy production and transportation sectors while driving innovation across industries. The agency further states that "[HB4] commits the state to rapid and ambitious action to ensure that New Mexico reduces GHG emissions while developing climate resilience, supporting disproportionately affected communities, and building the clean energy economy in areas that have been impacted by job losses in the industries that rely on fossil fuels such as electricity generation and oil refining. ... Efforts to expand the use of hydrogen for existing sources or new sources relocating to New Mexico will provide a lower- or zero-carbon energy source through the designated hydrogen hubs and monetary incentives, especially for hard to decarbonize industries."

The Indian Affairs Department (IAD) commented that access to financial resources is often a key barrier to development projects in Indian nations, tribes, and pueblos, and therefore, [HB4]'s provision authorizing hydrogen hub development grants and loans to Indian nations, tribes, and pueblos may benefit this community and their chosen private partners by providing financial assistance to selected hydrogen projects.

As pointed out by the Energy, Minerals and Natural Resources Department (EMNRD), successful deployment of facilities that require carbon capture and sequestration, such as the Escalante power plant, may require the state to address specific policy issues in the near future. One such issue is pore space ownership (i.e., who owns the underground geographic features where CO<sub>2</sub> might be stored, particularly in a split estate location) and rules surrounding pore space development. Another is the long-term and short-term ownership of sequestered CO<sub>2</sub> and associated financial assurance requirements.

## PERFORMANCE IMPLICATIONS

NMED is responsible for administering and enforcing regulations promulgated by the EIB to improve air quality throughout New Mexico. Key performance measure goals for public health and environmental protection are to reduce the share of the population exposed to unhealthy air and to reduce statewide emissions of nitrogen oxides and volatile organic compounds. According to NMED, [HB4] will lower emissions from transportation and electricity generation fuels, reducing the amount of GHG in the atmosphere that contribute to climate change and degrade air quality. NMED is also responsible for implementing the Governor's [Executive Order 2019-003 Addressing Climate Change and Energy Waste Prevention](#), which seeks to reduce statewide GHG emissions by 45 percent by 2030.

## ADMINISTRATIVE IMPLICATIONS

[HB4] requires NMED to provide administrative services to the hydrogen hub development board, which NMED states will require 1 FTE.

[HB4] requires NMFA to provide staff support to the board for financial analysis of proposed hydrogen hub projects. According to NMFA, these responsibilities would be similar to those currently provided to the Department of Transportation (NMDOT) in terms of financial analysis, bond issuance, establishing lines-of-credit, collecting revenues held by a Trustee that are designated for bond repayment, investing NMDOT funds, and managing the financial aspects of project funds. NMFA is therefore equipped to serve in this role, but may need additional staff due to the expected magnitude of a hydrogen hub project.

[HB4] will enable NMFA to issue revenue bonds without state obligation or support. While NMFA has the expertise to issue such revenue bonds, it notes that success in doing so will depend on the availability of revenues from a hydrogen hub project, which in turn will likely require the facility to be in operation; bridging the financing gap between building the facility and generating revenues from an operating facility will likely fall to the private partner.

## CONFLICT, RELATIONSHIP

House Bill 55 creates a public-private partnership board at NMFA and adds an exemption for public-private partnerships to the procurement code. If both HB55 and HB228/HCEDCS pass, these provisions could conflict with one another.

HB228/HCEDCS relates to an appropriation in House Bill 2: \$125 million to the hydrogen hub project fund for loans and grants authorized in HB4 or similar legislation, such as HB228/HCEDCS.

## TECHNICAL ISSUES

HB228/HCEDCS provides for the merging of public and private entities into public-private partnerships, under public-private partnership agreements. Section 41-4-4 NMSA 1978 (the Tort Claims Act) grants public entities and employees immunity from liability for tort claims except as waived under the New Mexico Religious Freedom Restoration Act [Sections [28-22-1](#) to [28-22-5](#) NMSA 1978] or the Tort Claims Act.

Section 41-4-8(A) NMSA 1978 states in part that immunity “does not apply to liability for damages resulting from bodily injury, wrongful death or property damage caused by the negligence of public employees while acting within the scope of their duties in the operation of the following [enumerated] public utilities....”

Section 41-4-8(B) NMSA 1978 states: “The liability imposed pursuant to Subsection A of this section shall not include liability for damages resulting from bodily injury, wrongful death or property damage: (1) caused by a failure to provide an adequate supply of gas, water, electricity or services as described in Subsection A of this section; or (2) arising out of the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants or pollutants into or upon land, the atmosphere or any watercourse or body of water.”

HB4 presents a potential issue as to whether this creation of a public-private partnership under public-private partnership agreement nullifies the immunity otherwise available to public utilities, entities, and employees under the Tort Claims Act.

Section 4(D)(12) states that a public-private partnership agreement shall “provide for the protection of proprietary information of the private partner.” Because the partnership would involve a private entity, the legislation may require language as to how the proprietary information will be protected under Inspection of Public Records Act (IPRA) requirements that apply to the public entity.

The Office of the Attorney General (NMAG) notes that “In Section 9(B), the clause, ‘as required by the authority’ at the end of the sentence makes it unclear whether the authority can waive the preceding provision that obligates a private partner to ‘provide funds that match or exceed the public partner’s monetary obligations for the cost of a study.’”

NMAG clarifies that the [HB4] definition of clean hydrogen referencing standards developed pursuant to Section 822 of the Federal Energy Policy Act of 2005 was likely intended to refer to Section 822 of the federal Infrastructure Investment and Jobs Act, 42 U.S.C.A §16166, Pub. L. No. 117-58 (2021).

NMAG also reports:

“The definition of the term ‘responsibly sourced gas’ refers to standards promulgated pursuant to Title 8 of the federal Energy Policy Act of 2005. Presumably, this is in reference to the Clean hydrogen research and development program, 42 U.S.C.A. §16154(J) (2021), which was amended to direct the Secretary of the Department of Energy, issue updated targets for the ‘clean hydrogen research and development program’ within 180 days from the date of enactment to ‘address near-term (up to 2 years), mid-term (up to 7 years), and long-term (up to 15 years) challenges to the advancement of clean hydrogen systems and technologies.’ As of the time of this analysis, the status of those updated targets is uncertain. In short, absent federal definition, the proposed language is vague.

As drafted, Section 7(A) states that ‘if the proposed project generates hydrogen, then the board shall approve it only if it finds...’ The clause ‘if the proposed project generates hydrogen’ suggests that hydrogen producers already in operation could nonetheless qualify for a hydrogen hub project if they otherwise meet the criteria.”

## OTHER SUBSTANTIVE ISSUES

It should be noted that a CI of two kilograms of carbon dioxide per kilogram of hydrogen may be very difficult to achieve, particularly without the development of new processes and technologies that are not currently available. The chemistry of creating hydrogen from methane and not sequestering the produced carbon dioxide results in a CI that is, at minimum, 5.5 and can range to over 7. In order to achieve a CI of 2, at least 75 percent of the generated carbon dioxide must be permanently sequestered.

The bill states “no breach shall impose a financial liability or charge upon the general credit of the state or any of its political subdivisions.” However, NMAG notes it is unclear how this provision would protect against a rating agency downgrade in response to a debt obligation default held by a public-private partnership involving a political subdivision.

Section 9(E) provides for a grant or loan of money in the hydrogen hub project fund to “an Indian nation, tribe or pueblo that has entered into a public-private partnership with a private partner for the development of a public project” under enumerated conditions. In *Hamaatsa, Inc. v. Pueblo of San Felipe*, 2017-NMSC-007, 388 P.3d 977, the court held that dismissal was proper under: “the unequivocal precedent of the United States Supreme Court [which] declares only two exceptions to tribal sovereign immunity—the tribes’ waiver of immunity or congressional authorization—neither of which exists in the instant case.” Additionally, Update of Selected Studies in Transportation Law, citing *Michigan v. Bay Mills Indian Community*, 134 S. Ct. 2024, 188 L. Ed. 2d 71 (2014) states: “Sovereign immunity ... extends to commercial activities off of Indian lands and can only be waived by the tribe or Congress.”

Under this precedent, tribal sovereign immunity can only be expressly waived by an authorized member of the Indian nation, tribe, or pueblo; or by a Congressional waiver. If not waived, tribal sovereign immunity will apply to judicial actions taken against said entities. An express waiver of tribal sovereign immunity should therefore be included in HB4, and in any related legislation (and agreements) involving the Indian nation, tribe, or pueblo in order to preserve the state’s pursuit of default and other contract remedies.

## AMENDMENTS

NMFA pointed out a potential conflict between Sections 8(H) and 9(F): 8(H) requires NMFA to be compensated for administrative and reimbursable costs related to the authority’s support of the board and administration of the hydrogen hub project fund, but 9(F) specifies that money in the fund is subject to legislative appropriation. Section 8(H) may indicate NMFA is entitled to reimbursement for all relevant administrative costs, regardless of legislative appropriation.

CW/IT/JT/LG/al