NEW MEXICO
CLEAN HYDROGEN
FACT SHEET

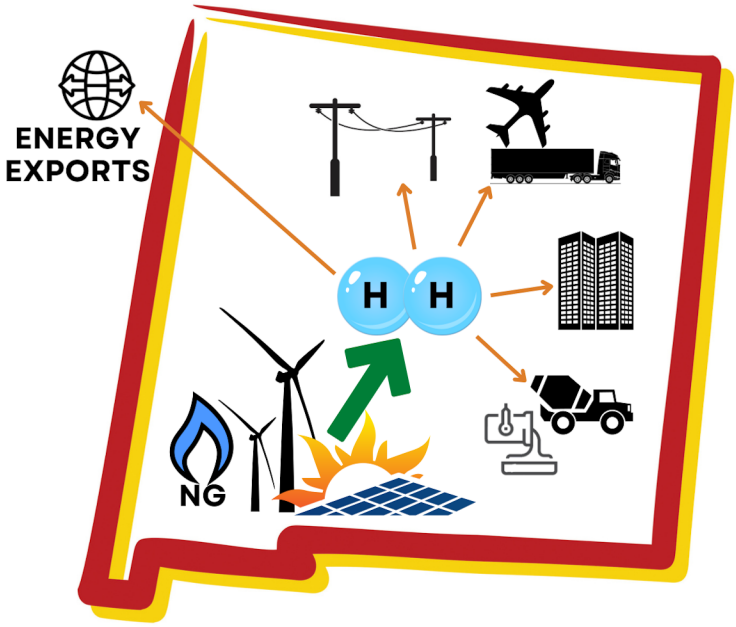
As a national leader in clean energy, New Mexico is looking to diversify its energy exports and include clean hydrogen as a key sector of the economy. We plan to make, move, store, and use clean hydrogen here in New Mexico as well as export and sell to neighboring states.

MAKE

Clean hydrogen is primarily produced in one of two ways:

Electrolysis uses electricity to split water molecules. Hydrogen is captured with oxygen as the byproduct.

Steam methane reformation with carbon capture uses natural gas to produce hydrogen while capturing the carbon byproduct.



MOVE

Clean hydrogen can be moved as a gas or in other forms, such as ammonia, from production to market in New Mexico and across the nation by using existing and new pipeline infrastructure, on-road transportation, and rail.

STORE

Clean hydrogen can be stored in underground salt caverns and geologic structures, in storage tanks, or indefinitely in above-ground cryogenic tanks.

USE

Clean hydrogen can be used in several applications, most notably:

Generating electricity in power plants

Powering long-haul semi-trucks, other commercial vehicles, and aircraft

Capturing and storing excess electricity produced from wind and solar during periods of high generation but low demand

Providing a fuel to use across other hard-to-decarbonize sectors like cement processing, and steel and chemical manufacturing

WHY CLEAN HYDROGEN?

Converting hydrogen to energy does not produce greenhouse gases or harmful air pollutants.

New Mexico already has the skilled labor force needed to support this industry.

WATER

Water use for the clean hydrogen economy must be considered carefully. The use of alternative sources, like produced and brackish water, is a priority. The four projects planned in New Mexico as part of the Western Interstate Hydrogen Hub would produce about 850 metric tons of clean hydrogen daily while consuming between 3 and 9 acre-feet of water depending on the method of production. This level of water use is a small fraction of the water that will be freed up by retiring fossil fuel electricity generation.

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ESTABLISHING THE CLEAN HYDROGEN ECONOMY IN NEW MEXICO

Governor Michelle Lujan Grisham set New Mexico on the path to more jobs and better public health with her *Executive Order 2022-013 Establishing the Clean Hydrogen Development Initiative and Implementing Various Measures to Foster a Hydrogen Economy for the Benefit of all New Mexicans*.

The Western Interstate Hydrogen Hub (WISHH) coalition, an unprecedented partnership between New Mexico, Colorado, Wyoming and Utah, submitted a concept paper to the U.S. Department of Energy (DOE) for hydrogen hub funding under the federal Bipartisan Infrastructure Law. Our concept paper was one of 33 that DOE encouraged to move forward out of the 79 submitted.

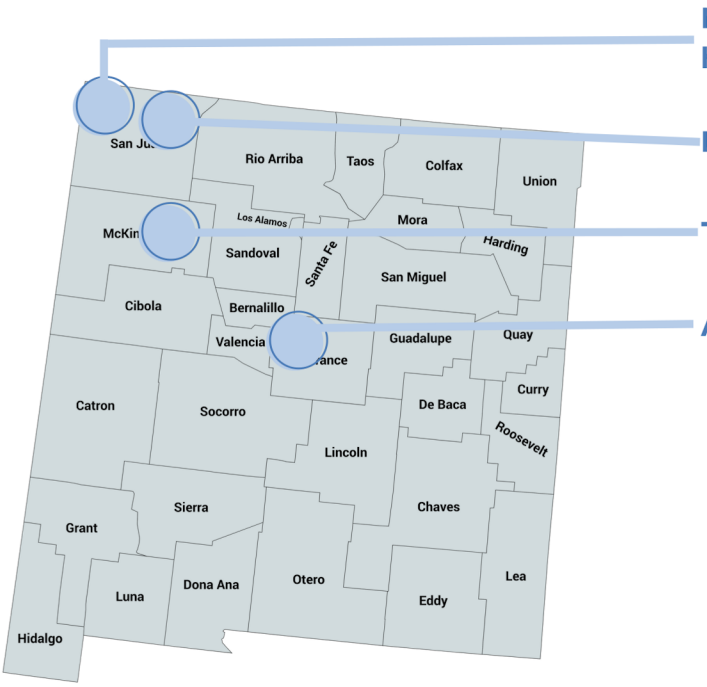
WISHH is requesting the maximum award of $1.25 billion from DOE. If awarded, this would bring an estimated $710 million in federal funds and private investments into our state while accelerating job growth and economic diversification and furthering our ambitious climate change goals.

RESOURCE NEEDS

To maintain our position as a national clean energy leader and build a sustainable hydrogen economy worthy of DOE investment of $1.25 billion, the state agencies will require $24.2 million over the next four to six years, including $3.0 million in recurring funding. This includes:

- $310 thousand in FY23 for the partnering agencies to support development of the full WISHH proposal to DOE
- $8.3 million for the Energy, Minerals and Natural Resources Department to establish a New Mexico-based carbon capture, use, and storage program
- $9.4 million for the Environment Department to advance a clean hydrogen program
- $6.2 million for the Economic Development Department to support innovative hydrogen-related business initiatives

NEW MEXICO HYDROGEN HUB PROJECTS



Navajo Agricultural Production Industries hydrogen agricultural project

Libertad Power transportation hub

Tallgrass Escalante Generating Station conversion

Avangrid clean hydrogen production

WHAT IS A CLEAN HYDROGEN HUB?

A clean hydrogen hub is a network of clean hydrogen producers, consumers, and connective infrastructure. It contains all facets of a hydrogen ecosystem: production, delivery, storage, and end uses. A clean hydrogen hub must be self-sustaining after DOE's initial investment.

State agencies are establishing the clean hydrogen economy in New Mexico by:

- Providing over $10 million in financial resources from programs to support clean hydrogen projects from industry leaders like Bayotech & Universal Hydrogen
- Participating in conferences, workshops, events, and podcasts highlighting New Mexico as an international and national center of the clean hydrogen economy
- Actively pursuing of DOE clean hydrogen hub funding