

State of New Mexico

Michelle Lujan Grisham Governor

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

WHEREAS, climate change is creating new risks and exacerbating existing vulnerabilities in communities across New Mexico and presents growing challenges for human health and safety, quality of life, and our economic growth;

WHEREAS, to help combat those changes and limit the adverse impacts on our people, communities and our natural and cultural heritage, it is incumbent upon us to continue to invest in, innovate around, and build a clean energy future for our state;

WHEREAS, effectively responding to climate change requires building a clean energy economy and changing the way we as a state generate, distribute, use, and consume energy;

WHEREAS, this transition requires investments in both established clean energy technologies, like wind and solar, and new and emerging energy sources, like hydrogen;

WHEREAS, clean and zero-carbon hydrogen represents a unique opportunity to facilitate the energy transition in hard-to-decarbonize sectors of New Mexico's economy;

WHEREAS, clean and zero-carbon hydrogen electricity generation, when paired with wind and solar resources, can help ensure we meet our ambitious clean energy goals while ensuring we have a stable and reliable grid;

WHEREAS, strategic investments in clean and zero-carbon hydrogen now will enable New Mexico to be at the forefront of the hydrogen industry, and will provide opportunities for new and existing companies that will lead to capital investments and job creation;

WHEREAS, investments in hydrogen will help us leverage the work ongoing at research institutions and national laboratories across the State to ensure the new technologies are not just developed in our world-renowned labs, but are given the opportunity to grow and flourish into cornerstones of our economy;

WHEREAS, our leadership in creating a clean and zero-carbon hydrogen economy will position the State of New Mexico as a net exporter of such energy resulting in broader decarbonization efforts across the United States and internationally;

WHEREAS, the broad adoption of clean and zero-carbon hydrogen will reduce air pollution from fossil fuel combustion locally in the industrial and transportation sectors in communities across the state improving health equity for disadvantaged communities.

WHEREAS, the broad adoption of clean and zero-carbon hydrogen will reduce spills and releases of fossil fuels that pollute and contaminate our surface and groundwaters for decades – the primary drinking water sources for New Mexicans and Tribal Nations – costing the State of New Mexico millions of dollars in remedial and litigation fees.

WHEREAS, the states of Colorado, New Mexico, Utah, and Wyoming entered into a Memorandum of Understanding ("MOU"), dated February 23, 2022, that establishes a framework for those states to coordinate on the development of a regional clean hydrogen hub as contemplated by the 2021 Infrastructure Investment and Jobs Act, Pub. Law 117-58 (the "State MOU"), including a commitment for those States to submit a single joint application for a Western Inter-

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State Hydrogen Hub pursuant to guidelines established by the United States Department of Energy under the Act;

WHEREAS, the New Mexico Economic Development Department ("EDD"), the New Mexico Energy, Minerals, and Natural Resources Department ("EMNRD"), and the New Mexico Environment Department ("NMED") entered into a Memorandum of Understanding with the National Technology & Engineering Solutions of Sandia, LLC, and Triad National Security, LLC designed to help facilitate the development of sound science, advance technologies and inform national and state policies that could enable a path to zero-carbon hydrogen (the "Lab MOU"); and

WHEREAS, the direction in this Order and the commitments made in the Lab MOU are consistent with and in furtherance of the State MOU, which encourages participating states to enter into separate agreements with other entities that further the development of a robust hydrogen economy.

NOW, THEREFORE, I, Michelle Lujan Grisham, Governor of the State of New Mexico, by virtue of the authority vested in me by the Constitution and laws of the State of New Mexico, ORDER and DIRECT as follows:

- 1. For purposes of this Order, the terms below have the following definitions, unless otherwise noted:
 - A. "Carbon intensity" means the quantity of carbon dioxide equivalent emitted as determined through a life cycle analysis as expressed in kilograms of carbon dioxide equivalent per kilogram of hydrogen produced.
 - B. "Clean hydrogen" means whichever of the following results in the lower carbon intensity:

- i. Hydrogen produced with a carbon intensity equal to or less than two kilograms of carbon dioxide equivalent per kilogram of hydrogen produced; or
- ii. Hydrogen meeting the standards for clean hydrogen developed pursuant to Section 822 of the Federal Energy Policy Act of 2005, as that section may be amended or renumbered.
- C. "GREET model" means the greenhouse gases, regulated emissions and energy use in technologies model developed by Argonne national laboratory or a successor model.
- D. "Life cycle analysis" means, for hydrogen produced from methane, including feedstock extraction, agricultural waste, biomass or municipal solid waste, or from any other source, including water or wastewater, the quantity of greenhouse gas emissions through the point of hydrogen production, including all stages of production and distribution, from feedstock generation through the delivery and use of the finished fuel or other product for hydrogen production, as determined under the most recent GREET model.
- E. "No-carbon hydrogen" means hydrogen that has, by 2045, a carbon intensity of less than or equal to zero kilograms of carbon dioxide equivalent per kilogram of hydrogen; and
- F. "No-carbon hydrogen electric generation facility" means a facility that burns one hundred percent no-carbon hydrogen;
- G. "Zero-carbon hydrogen" means hydrogen produced with a carbon intensity equal to or less than zero kilograms of carbon dioxide equivalent per kilogram of hydrogen produced;

- 2. The executive agencies of the State of New Mexico, including EDD, EMNRD, NMED, the New Mexico Taxation and Revenue Department ("TRD"), and the New Mexico Indian Affairs Department ("IAD") shall consult with any federally recognized Indian nation, tribe or pueblo located in New Mexico on potential programs to support the development of robust and environmentally responsible hydrogen development on an Indian nation's, tribe's or pueblo's lands and/or resources. IAD shall facilitate tribal consultations between State executive agencies and respective Tribal Nations.
- 3. All State executive agencies shall ensure that federal and state funding that they administer individually supports the development of the clean- and zero-carbon hydrogen economy to the greatest extent possible and consistent with applicable laws.
 - 4. EDD, EMNRD, NMED, TRD, and the IAD shall:
 - A. Provide necessary support to the workgroup formed under the State MOU to ensure the participating states put forward the most robust application possible supporting the Western Inter-State Hydrogen Hub; and
 - B. One week prior to the start of the 2023 legislative session, provide recommendations to the Governor on additional programs or incentives that will contribute to the development of a robust and environmentally responsible hydrogen industry in New Mexico, with an emphasis on the development of clean and zero-carbon hydrogen, including potential recommendations concerning tax policy changes, incentive programs or regulatory regimes to support such development across the state, or other initiatives to support our work under the State MOU.
 - 5. EDD shall:

- A. Include hydrogen in the State's key economic sectors and support the development of clean and zero-carbon hydrogen production; and
- B. Review, with support from other members of other State executive agencies, its existing programs and authorities to identify those that can be used to support the economic development of an environmentally responsible hydrogen sector.
- 6. EMNRD and NMED shall develop, consistent with the direction in NMSA 1978, Section 62-16-4(B)(5), (6), a proposal for consideration by the Public Regulation Commission ("PRC") that would ensure that no-carbon hydrogen electric generation facilities are eligible for treatment as "zero carbon resources" as that term is defined under NMSA 1978, Section 62-16-3 and as it used in NMSA 1978, Section 62-16-4(A)(6). Such a proposal shall ensure that by 2045 any electricity generation from a no-carbon hydrogen electric generation facility emits no carbon dioxide into the atmosphere from either the facility directly or after accounting for lifecycle emissions from any no-carbon hydrogen consumed by the facility.
- 7. EMNRD shall develop recommendations, with support from other State executive agencies, concerning the resources necessary to support the development and operation of carbon sequestration operations, including:
 - A. Resources necessary to obtain state-level primacy under the U.S. Environmental Protection Agency's ("EPA's") rules under the Safe Drinking Water Act governing Class VI Underground Injection Control wells;
 - B. Pore space ownership and development; and
 - C. Long-term and short-term ownership of sequestered carbon dioxide, including potential financial assurance requirements.

I FURTHER ORDER and DIRECT as follows:

- 1. This Order supersedes any previous orders, proclamations, policies, or directives to the extent they are in conflict.
 - 2. This Order shall take effect immediately, and shall remain in effect until rescinded.

ATTEST:

GGIE TOULOUSE OLIVER SECRETARY OF STATE

DONE AT THE EXECUTIVE OFFICE THIS 10TH DAY OF MARCH 2022

WITNESS MY HAND AND THE GREAT SEAL OF THE STATE OF NEW MEXICO

MICHELLE LUJAN GRISHAM

GOVERNOR

