STATE OF MINNESOTA

Executive Department



Executive Order 22-22

Directing State Agencies to Pursue Federal Funding for Clean Hydrogen Market Development in Minnesota

I, **Tim Walz, Governor of the State of Minnesota,** by the authority vested in me by the Constitution and applicable statutes, issue the following Executive Order:

Minnesota has made great strides in reducing carbon emissions from the electricity sector, with emissions down 29 percent from 2005 to 2018. This significant progress is important to Minnesota's future but falls short of our statutory greenhouse gas emission targets and the greenhouse gas emission reduction goals set by the Intergovernmental Panel on Climate Change ("IPCC"). To achieve these carbon reduction goals and address our changing climate, we need to make significant reductions in other economic sectors such as transportation, agriculture, and industry.

Hydrogen has emerged as a potentially critical resource for reducing emissions in many activities that are difficult to decarbonize, such as ammonia fertilizer production, aviation, long-duration energy storage, long-haul transportation, and other industrial activities. Development of low-carbon, low-cost hydrogen could help bring the emissions reduction successes seen in the energy sector to other sectors of the economy.

Development of hydrogen markets in Minnesota would build on successes such as those seen at the University of Minnesota's West Central Research and Outreach Center in Morris, which has been a global leader in the early-stage development of unique production pathways for using renewable wind energy to generate green hydrogen and low-carbon ammonia for nitrogen fertilizers. Producing hydrogen from clean energy in greater Minnesota and using that homegrown hydrogen in local industries could drive economic development.

The federal Infrastructure Investment and Jobs Act of 2021 ("IIJA") provides \$8 billion in United States Department of Energy funding to promote the development of at least four regional hydrogen hubs nationwide. With our region's capacity and pilot scale infrastructure to produce large volumes of low-carbon hydrogen and our unique potential to reduce carbon emissions from industries such as mining and agriculture, federal hydrogen hub funding from the IIJA or other sources could come to a regional application that includes Minnesota. The recently released Climate Action Framework, which commits to working toward the IPCC's emission reduction goals, identifies the development of hydrogen hubs as an important State Action Step. To date, Minnesota has signed onto two separate Memoranda of Understanding with other states to work to bring these federal dollars to our region to build the clean hydrogen economy.

As hydrogen markets develop, we have an opportunity to analyze how they can address current disparities, incorporating feedback from consultation with Tribal Nations and the perspectives of people of color, indigenous people, rural Minnesotans, and other populations who experience disproportionate impacts from climate change.

As we engage with other states and entities that are applying for regional hydrogen hub funding, it will be possible to advocate for and prioritize the development of hydrogen markets in a manner that builds on our success as a global leader in renewable ammonia and that equitably benefits Minnesotans and the climate.

For these reasons, I order as follows:

- 1. The Department of Commerce will conduct an evaluation of our State's regulatory preparedness in anticipation of the development of hydrogen production, distribution, and use. The Department of Commerce will coordinate this evaluation with the Departments of Transportation, Agriculture, Employment and Economic Development, Natural Resources, the Pollution Control Agency, Public Utilities Commission, and any other agency or office with relevant jurisdiction.
- 2. The Departments of Commerce, Agriculture, Transportation, Employment and Economic Development, and the Pollution Control Agency will consult Tribal Nations to identify and consider their interests related to hydrogen production and distribution and engage in ongoing communication and collaboration. Consultation will begin no later than December 16, 2022.
- 3. The Departments of Commerce, Agriculture, Transportation, Employment and Economic Development, and the Pollution Control Agency will engage with historically disadvantaged communities, representatives from labor unions, utilities, and research facilities, including the University of Minnesota and the Agricultural Utilization Research Institute, to address environmental justice and workforce concerns related to hydrogen production and distribution and to identify potential strategies to mitigate concerns. The initial convening will occur no later than December 16, 2022.
- 4. The Department of Commerce will engage with neighboring states, utilities, the University of Minnesota, the Agricultural Utilization Research Institute, and private entities exploring hydrogen hub funding opportunities, may enter into data sharing agreements as needed and permitted under the law, and will seek to participate in the development of hydrogen hub applications that would impact Minnesotans with the goal of ensuring that any funding applications prioritize:
 - a. The production of hydrogen from renewable resources.

- b. The development of hydrogen markets and infrastructure that is reliable, safe, and affordable.
- c. The reduction of carbon emissions from industries difficult to decarbonize, such as fertilizer production, long-haul transportation, long-duration energy storage, and mining.
- d. Consultation with Tribal Nations.
- e. Robust community engagement and input, including with people of color, indigenous people, rural Minnesotans, and other populations who experience disproportionate impacts from climate change.
- f. The creation of high-wage, high-benefit jobs, equitably available to Minnesotans.
- 5. The Department of Commerce will engage with utilities, the University of Minnesota, the Agricultural Utilization Research Institute, and private entities to evaluate the technological readiness of existing pilot production of green hydrogen in Minnesota and identify steps needed to scale up existing green hydrogen production to a commercial scale.

This Executive Order is effective fifteen days after publication in the State Register and filing with the Secretary of State. It will remain in effect until rescinded by proper authority or until it expires in accordance with Minnesota Statutes 2022, section 4.035, subdivision 3.

A determination that any provision of this Executive Order is invalid will not affect the enforceability of any other provision of this Executive Order. Rather, the invalid provision will be modified to the extent necessary so that it is enforceable.

Signed on October 25, 2022.

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Tim Walz Governor

Filed According to Law:

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Steve Simon Secretary of State

Filed on October 25, 2022 Office of the Minnesota Secretary of State, Steve Simon