



MEMBERSHIP MEETING SUMMARY

Wednesday, February 25, 2026 (9:30 AM – 12:00 PM)

1003 Discovery Drive | Chisholm, MN 55719

And via Teams: <https://teams.live.com/meet/9346462598940?p=Vp87r9PfN1k8ofAkxw>

MEETING OBJECTIVE

VISION | Shaping evolving landscapes for future generations.

MISSION | A regional collaboration that invests in our diverse community by:

- Developing opportunities for dynamic minescapes,
- Preserving lands to sustain current and future mining, and
 - Providing resources and education

STRATEGIC DIRECTIONS

1. Optimizing Organization & Communications
2. Investing in Mineland Communities
3. Enhancing Stakeholder Partnerships
4. Educating Partners & the Public

Check out the updated website: www.mvpmn.org

MEETING SUMMARY

- Welcome & Introductions
- Presentation: Helium, Helium-3, & CO₂, Pulsar Helium, Inc.
- Presentation: Geologic Hydrogen in MN *Presence, Opportunities*, UMN Natural Resources Research Institute
- Presentation: DNR Gas rulemaking for the potential development of helium and natural hydrogen resources in Minnesota, MN Department of Natural Resources
- Presentation: Gas production environmental review rulemaking-Update and preliminary concepts, MN Environmental Quality Board
- Presentation: Green financing with MnCIFA, MN Climate Innovation Finance Authority
- Adjourn

WELCOME AND INTRODUCTIONS

Welcome & Introductions, Miriam Kero, Facilitator

MVP Facilitator Miriam Kero welcomed attendees and called the meeting to order at 9:30 AM. Kero covered logistics (restrooms, cell phone, refreshments) and briefly reviewed the MVP vision, mission, and meeting agenda.

PRESENTATION

Helium, Helium-3 & CO₂, Pulsar

Cliff Cain, Manager Commercial & External Affairs, Pulsar Helium Inc. provided an overview of downstream end-uses and example uses of helium (He), helium-3 (³He) and carbon dioxide (CO₂). “Downstream” is “where gas shows up in the real world:” equipment that needs it, industries that consume it, buyers who pay for it.

For helium, downstream uses include MRI and medical, labs and R&D, semiconductors and electronics, space and aerospace, and industrial leak detection. Helium-3 is a niche isotope, much more rare than regular helium. Helium-3 is critical for neutron detection, “helium sniffers,” in portal monitors at ports and borders and in scientific detection instruments. Helium 3 is also mixed with He-4 for ultra-low temperature used in cryogenics (for example). Cain noted we are heading into a shortage of He-3. One gram of He-3 costs \$20M. There is none available for the private sector; entities must go through the Department of Energy. Carbon dioxide is used in food and beverage carbonation, dry ice and cold chain logistics, municipal water and wastewater for pH adjustment, and in mining and industrial wastewater. Buyers of these three products could be attracted to the area, providing opportunities for the region.

Cain was asked for an update on the project. He noted the seismic survey is complete and they can now communicate the presence of these three products. Cain shared that helium-3 must be produced here, and we want to attract He-3 users.

PRESENTATION

Geologic Hydrogen in MN Presence, Opportunities, UMN Natural Resources Research Institute

Rolf Weberg, Executive Director, NRRRI defined natural and induced hydrogen. There are three sources of natural hydrogen: radiolysis of water in old rocks with high radioactivities; microbial activity, and serpentinization of iron minerals in ultramafic rocks. Natural hydrogen requires “traditional” cap rock which is not prevalent in Minnesota. Thus, the USGS map does not reflect its potential presence in Minnesota. Induced, or stimulated, hydrogen is the result of artificial acceleration of water-rock interactions and fluid flow in ultramafic rock formations.

Weberg described the midcontinent rift and national models of hydrogen generation, and he highlighted the potential of hydrogen in Minnesota based upon geology. Weberg noted he is not promoting any policy or position, and he shared concerns: exploration permitting, hydrogen safety (e.g., the Hindenburg), groundwater impacts vs. fracturing and coordination of regulatory and research to be competitive.

Hydrogen plays a significant role in industrial transformation, and Minnesota has all the key attributes. Midwest Industrial Transformation Initiative (MITI), a collaboration between research institutions, industry partners, Tribal entities, and state and community leaders, is working to position the Midwest as a global leader in innovative industrial processes by (amongst others) supporting American energy dominance by increasing domestic hydrogen-based fuels and reducing reliance on imported fuels via adopting hydrogen hybrid energy solutions. Weberg noted demand drives development. And unlike Nebraska and Kansas, our resources are not under a mile of dirt.

PRESENTATION

DNR Gas rulemaking for the potential development of helium and natural hydrogen resources in Minnesota, Minnesota Department of Natural Resources

Mike Liljegren, Assistant Director, MnDNR Lands and Minerals began with a history of helium and carbon dioxide discovery. Duluth Metals gas samples showed carbon dioxide and helium, which brought Pulsar to the table. Pulsar's exploration had good results, and the need for a regulatory framework arose.

In the 2024 legislative session, a prohibition/moratorium on gas production without a permit was set. The legislature authorized expedited rulemaking, and a gas resources technical advisory committee (GTAC) was established. GTAC includes the five agencies: Department of Natural Resources (DNR), Department of Health, Environmental Quality Board (EQB), Department of Revenue, and the Minnesota Pollution Control Agency. Draft recommendations were completed with input from tribes, stakeholders and the public, and finalized recommendations and draft legislative language was submitted to the legislature on January 15, 2025.

Minnesota is 18 months into the two years allotted in constructing the new regulatory framework for production of helium, hydrogen, and other gases. The DNR is writing rules on permitting and reclamation, financial assurance, siting and setbacks, and pooling and spacing.

The 2025 gas bill did not get passed. Liljegren shared the timeline for DNR and EQB Rulemaking. The DNR created draft expedited rules in January and February 2026. These are in review with the CMO, governor office and revisor certification, with rules' promulgation expected May 22, 2026. Updates are posted on <https://gasproductionrules.mn.gov/> The rules timeline aligns with the Pulsar go/no go decision. Liljegren wrapped up with an overview of three hydrogen explorations on the Mesabi: Oscillate Plc, Iron Range Exploration (Koloma) and Orvian (QIMC).

PRESENTATION

Gas production environmental review rulemaking - Update and preliminary concepts, Minnesota Environmental Quality Board

Catherine Neuschler, Executive Director, MnEQB provided an overview of mandatory environmental review and the goals of writing rules that are simple, clear and effective. The focus to date is on potential EIS or EAW for significant environmental effects and thresholds. These include surface impacts, subsurface impacts and air impacts. Mandatory category threshold concepts include: size (number of production wells), location (areas with DNR restrictions and prohibitions or near Indian reservations and communities) and project specific techniques (underground injection used for waste disposal). Potential EIS thresholds include high volume hydraulic fracturing (based on certain volume of fluid) and "stimulated" gas production.

The MnEQB is planning to propose the MnDNR as the responsible government unit. Board approval to publish intent to adopt rules is projected for the April 15, 2026 meeting. Neuschler was asked if a visit could be held on the Iron Range in 2026? Neuschler said not in 2026, but they will take the recommendation into consideration. Information can be found at <https://www.eqb.state.mn.us/> .

PRESENTATION

Green financing with MnCIFA, Minnesota Climate Innovation Finance Authority

Per Kari Groth Swan, Executive Director, MnCIFA, Minnesota Climate Innovation Finance Authority is a "green bank" that finances renewable energy. They invest in projects that save energy, reduce energy costs, enhance energy reliability and grow Minnesota's clean energy economy. MnCIFA fills gaps and lends to underserved markets, leveraging private, public and nonprofit funds, with flexible interest and innovative financing. They provide access to capital to rural and greater Minnesota through loans not grants.

The MnCIFA minimum loan is \$250k, with intermediaries' options, for qualified projects with demonstrated benefits for the community. Per Swan, loan terms have ranged from two to seven years and from \$500k to \$5M. Qualified projects must reduce greenhouse gases, reduce energy costs and/or maintain reliable energy. The borrower must have the financial ability to repay, and they must pay prevailing wage for projects over \$100k.

Swan shared examples including the Sandstone School workforce housing project, partnering with Greater Minnesota Housing Fund on a mixed use building in southeast Minneapolis, and loaning \$500k to Carba, Inc. for a woody biomass biocarbon innovative project. There are opportunities for industrial decarbonization financing.

Swan made the call to connect with MnCIFA. She asked: Which projects could add clean energy components via their loans? Swan requested help connecting MnCIFA with project organizers and project developers. MnCIFA is currently seeking \$50M to loan for qualified projects, and they are expanding opportunities for Tribal and Greater Minnesota Communities. Call for applications posted at <https://mncifa.mn.gov/>

Contact: Mo Schriener

ADJOURN

The meeting was adjourned at 12:00 PM. The next MVP meetings will be Wednesday, May 20 and Wednesday, October 21.



Mineland Vision
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financial contributors!