

Nebraska Hydrogen Initiative

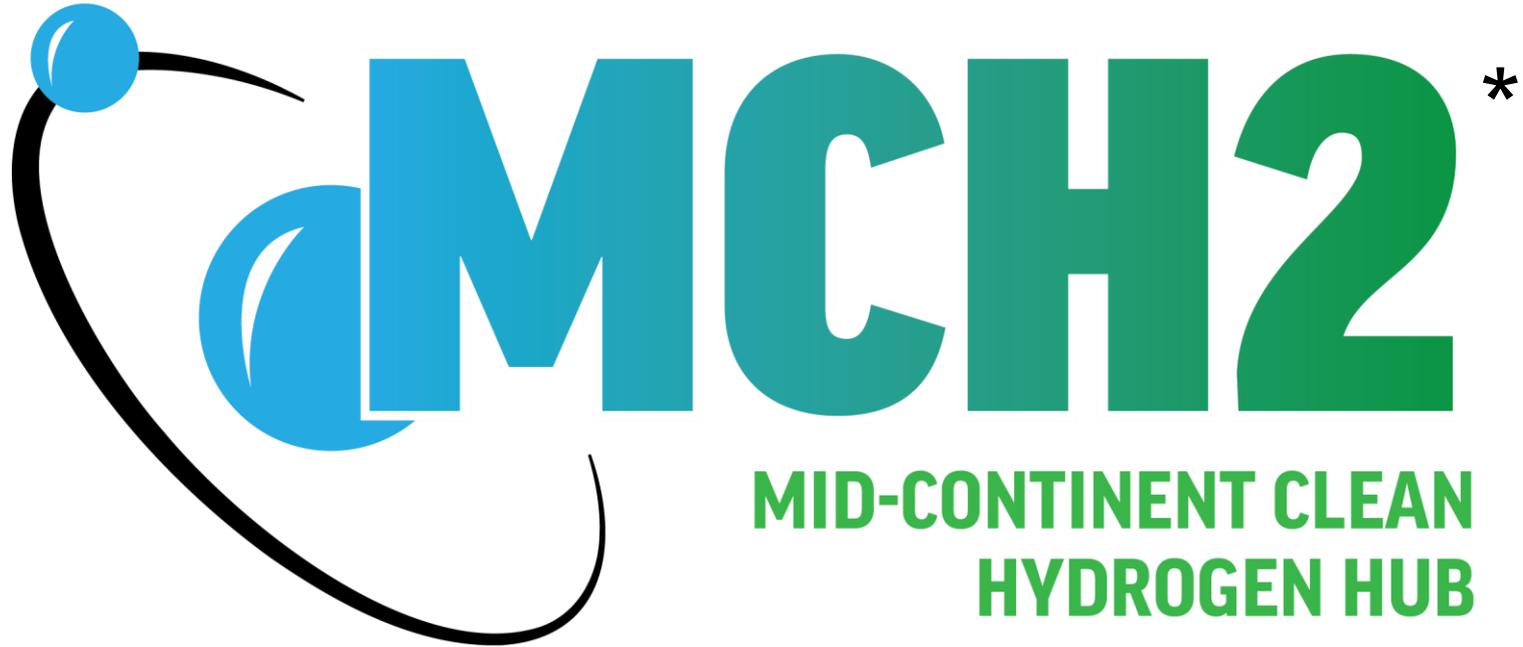
**Power Summit
Lincoln, NE
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**John Swanson
Director, Generation
Strategies & Research**



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Mid Continent Clean Hydrogen Hub - Background

- The Federal Infrastructure Investment and Jobs Act was signed into law in November 2021
- As part of that act, the U.S. Department of Energy (DOE) was authorized to fund an \$8 billion program to develop **regional clean hydrogen hubs**
- Subsequent to that act, Governor Ricketts signed LB 1099 in March of this year for the Nebraska Department of Economic Development to create the Nebraska Hydrogen Hub Industry Work Group
- NPPD has been working with a number of parties to develop a concept for a regional clean hydrogen hub

LB 1099 Committee

Tom Kent – President & CEO, NPPD

Mark McHargue – President, NE Farm Bureau

Amy Ostermeyer – Executive VP of Development, Monolith

Blake Hotzel – VP of Business Development, Tallgrass Energy

Scott Moore – Senior VP of Corporate Relations, Union Pacific

Chad Dittberner – Senior VP Van/Expedited Division, Werner Enterprises

MCH2 Formation

- **4 Committee Groupings:**
 - Agriculture
 - Energy
 - Transportation
 - Environmental, Social, Economic Development

≡ MCH2 Blueprint

- Agriculture

- Food Security – crop and animal
- Renewable Natural Gas (RNG)
- Ethanol
- Ammonia

- Manufacturers of Hydrogen

- Natural Gas Pyrolysis (unique)
- Autothermal or Steam Reforming
- Ethanol

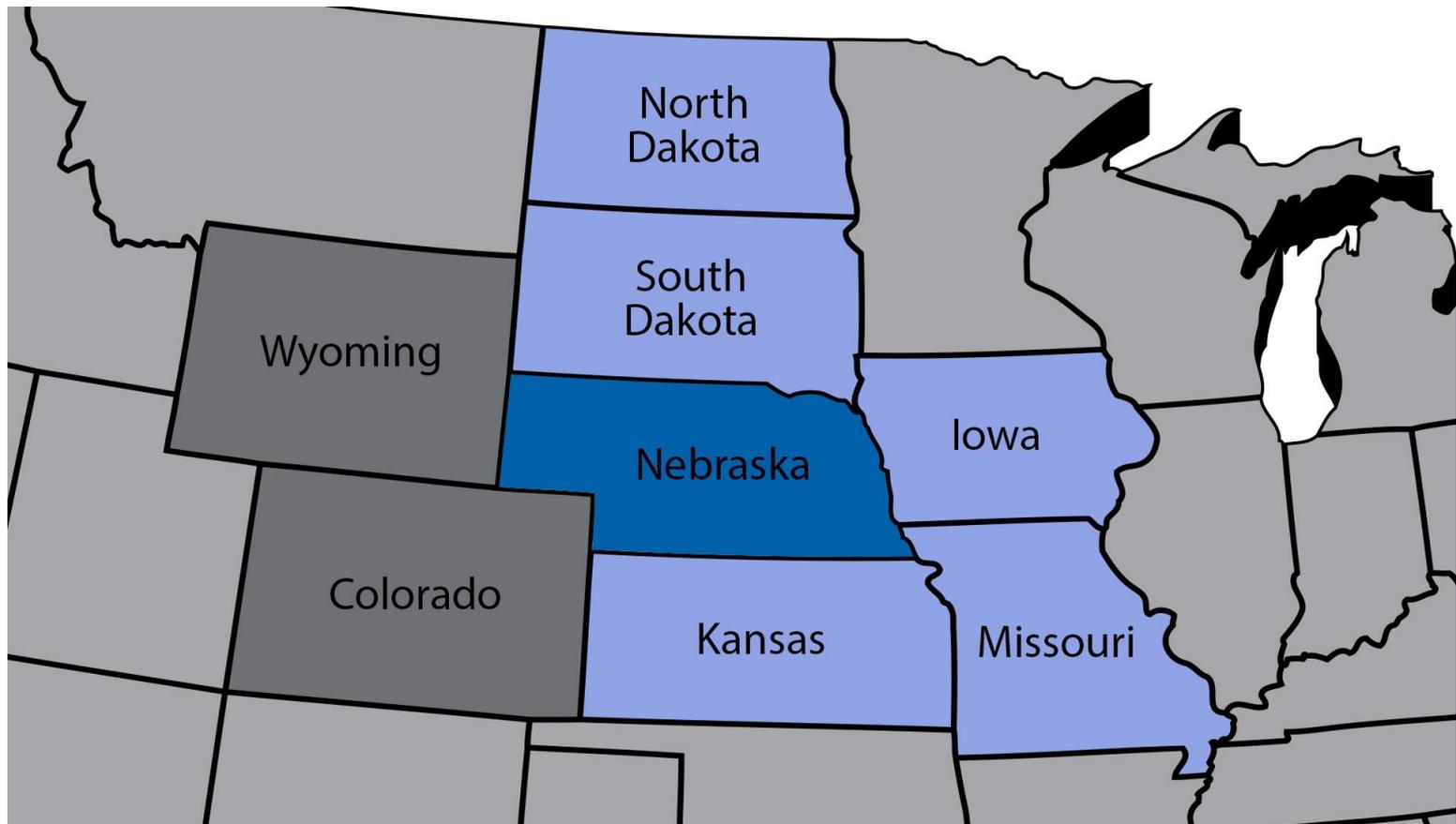
MCH2 Blueprint

- Products
 - Renewable Diesel (soy and corn oil)
 - Sustainable Aviation Fuel (SAF)
 - Green Chemicals (methanol, urea, etc.)
- Transportation
 - Airline (SAF)
 - Maritime (ammonia, methanol)
 - Rail (hydrogen fuel cells and renewable diesel)
 - Trucking (hydrogen fuel cells and renewable diesel)
- Social, Economic Development

DOE Regional Clean H2 Hubs

Title	Anticipated # of Awards	Anticipated <i>Minimum</i> Award Size for Any One Individual Award (Fed Share)	Anticipated <i>Maximum</i> Award Size for Any One Individual Award (Fed Share)	Approximate Total Federal Funding Available for All Awards	Anticipated Period of Performance (years)	Required non-federal cost share level (minimum)
Regional Clean Hydrogen Hubs	6-10	\$400 Million	\$1.25 Billion	\$6-7 Billion	8-12	50%

Hydrogen Hub “Regional” Perspective



Tallgrass Energy – Trailblazer Line



Hydrogen Hub

- **Process is fiercely competitive**
- **Hydrogen supply, transportation, and usage identified**
- **Federal dollars used to accelerate projects**
- **Hired Burns & McDonnell (1898 & Co.) to assist**
- **Currently in conversations with multiple states**
- **Concept Papers due November 4, 2022**

≡ Hydrogen Hub – Why?

- Transition to lower carbon economy
- In state economic development
 - Ag and Manufacturing sectors
 - Focus is on carbon free / renewable energy
 - **GREEN** hydrogen, CO₂ and electricity
- Potential future generation opportunities

Questions?

Stay connected with us.



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