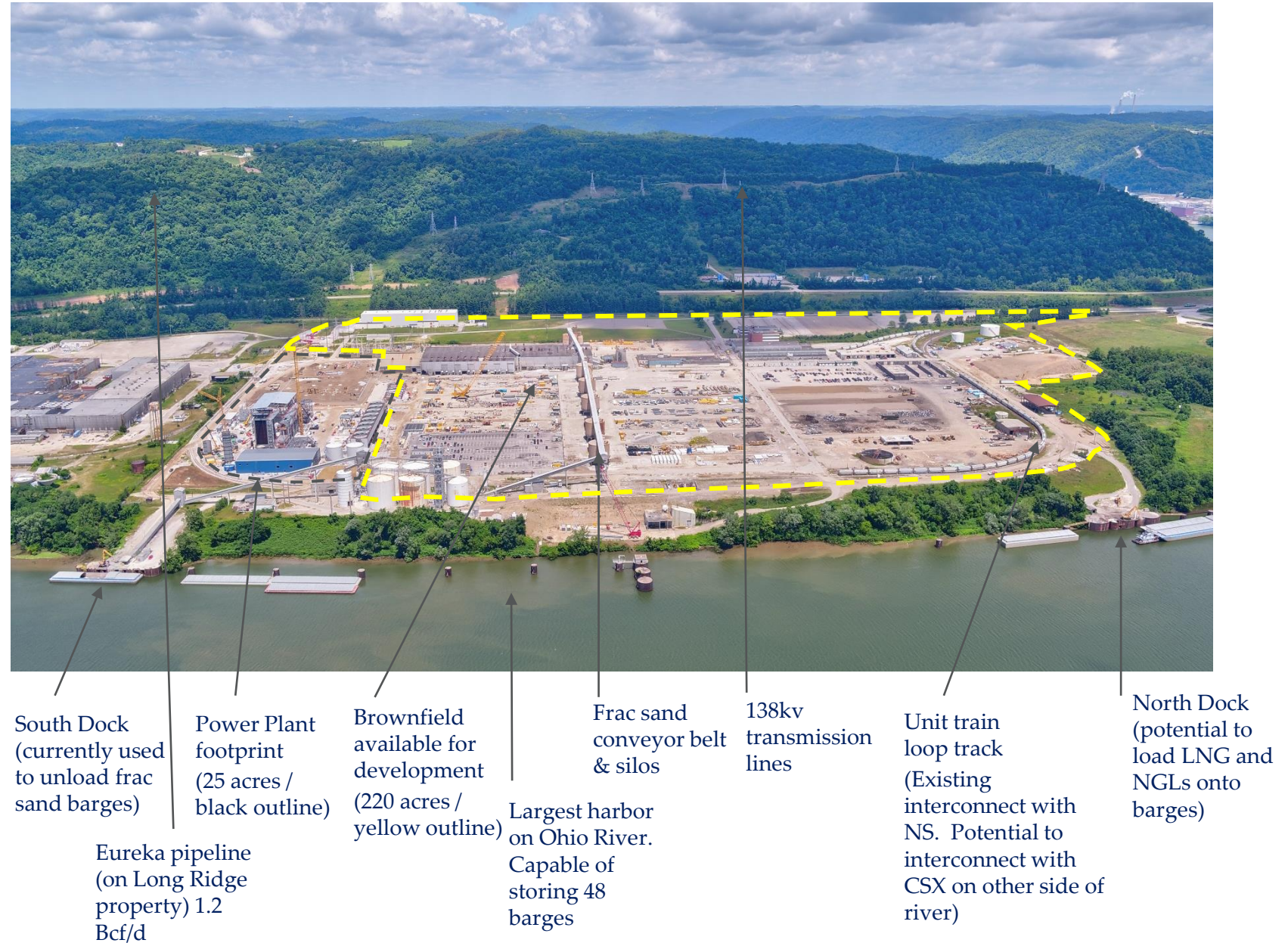


Long Ridge Energy Site – Hannibal Ohio

1. History of Location
2. Current Operations
3. H2 Hub Vision
4. H2 Value Chain Challenges
5. Overcoming Challenges



Long Ridge Overview – An overview of current operations

Long Ridge is an early mover utilizing hydrogen as a fuel source in power generation.

Company Profile:

- Long Ridge is an **energy-focused, project development company**, formed in 2017.
- **Mission:** to provide combination of **lowest cost and cleanest energy**
- Owned 50.1% by Fortress Investment Group and 49.9% by GCM Grosvenor

Development Status:

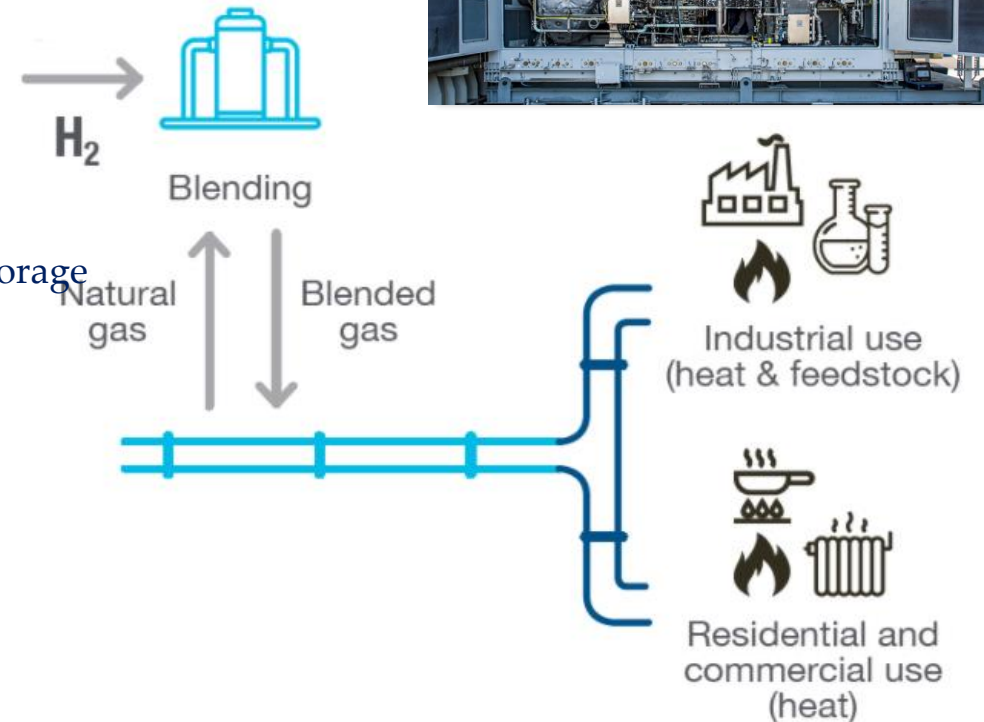
- Construction is **100% complete** on first 485 MW CCGT.
- GE 7HA.02 gas turbine, **capable of blending 20% hydrogen**
 - 100% with modifications
- Currently installing hydrogen Source: blending skid to blend first 5%
- **Initial hydrogen supply from neighboring industrial facility**
- **Exploring future hydrogen supply from onsite production**
- Received bid for creation of salt caverns allowing for long term underground storage of hydrogen

Timeline:

- **Power plant** construction complete in **September 2021**
- **Hydrogen blending skid** installation complete in **November 2021**
- **Hydrogen blending commences December 2021**

Location:

- Initial project located in Hannibal, Ohio (along the Ohio River)

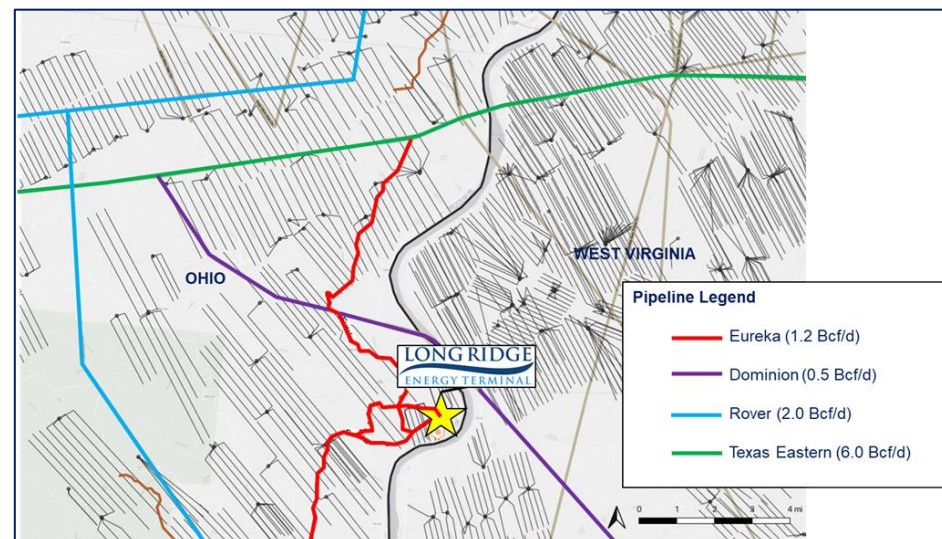


<https://www.energycouncil.com.au/analysis/renewable-hydrogen-strategy-launches/>

Source: <https://energyindustryreview.com/tech/worlds-first-hydrogen-blend-turbine-for-gas-networks/>

Vision for Ohio Valley H2 Hub - flexibility to play in multiple attractive markets

Pipeline infrastructure at Long Ridge



Potential Storage at Long Ridge

Where Natural Gas Underground Storage Fields are Located

Type of Storage and Total Field Capacity, July 2014

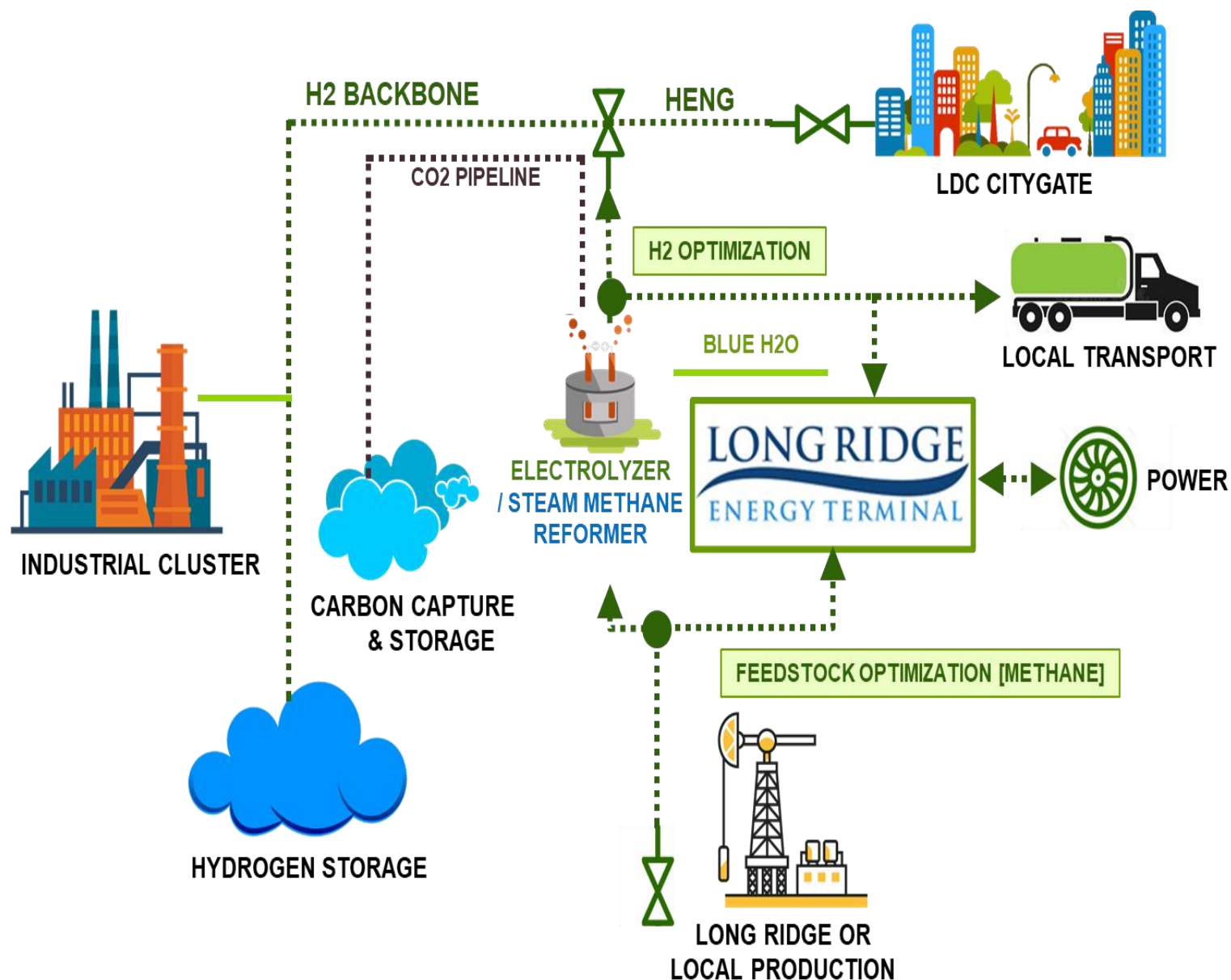
Type of Storage

- Depleted Fields
- Salt Formations
- Depleted Aquifers

Total Field Capacity (Billion Cubic Feet)

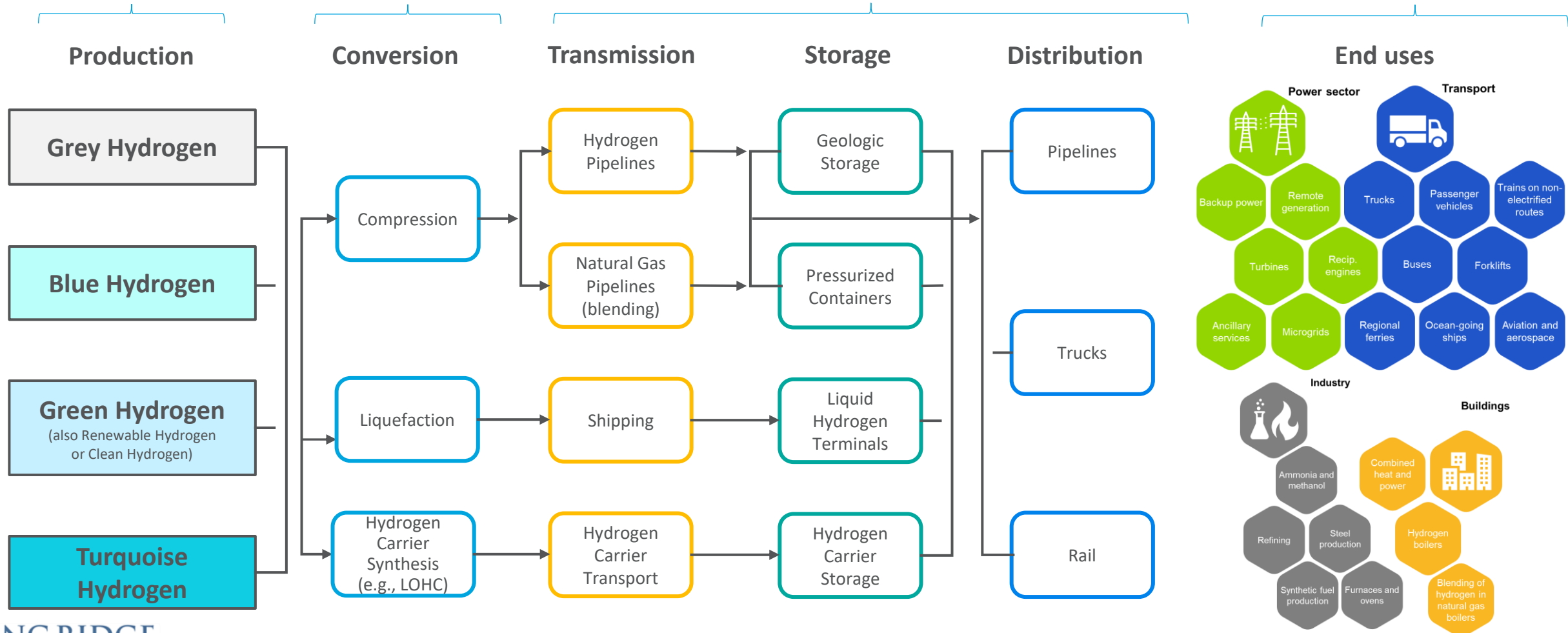
- Less than 14.5
- 14.5 to 37.8
- 37.8 to 73
- 73 to 122
- Greater than 122

Michigan and the Ohio valley have more than 2.4 TCF feet of underground natural gas storage capacity, more than any other state and more than 10% of the nation's total.



The H2 value chain challenges

- Production technology
- Ideal location
- Energy loss
- Natural resource utilized
- Carbon intensity score
- Conversion method
- Conversion loss
- Lower Heat Content
- H2 form to transport
- H2 form to consume
- Transportation, storage and distribution infrastructure
- Testing H2 blends for current natural gas infrastructure
- Limited ability to use existing pipes during conversion
- H2 storage locations availability for scale needed
- Infrastructure and access to low-cost methods for logistics
- Market understanding
- Market acceptance
- Cost premium
- Fundable projects
- Equipment modification needs



Long Ridge Energy is overcoming the challenges of H2 development

- Industry partnerships are being formed to **foster collaboration** and **facilitate on-going dialogue** among industry participants:

- H2 Producers
- Pipeline & Storage Operators
- Electric and gas utilities
- Transportation companies
- Electrolyzer / steam methane reformer manufacturers
- Industrial End Users
- Developers
- Municipalities/Economic Development Agencies

Long Ridge Energy

Brings value-add capabilities to foster H₂ development opportunities

- Willingness to take early-stage risks
 - **Locations:** Hannibal, NJ Liquids Terminal, FL LNG
 - **Pilot :** 1st in country to convert without a customer
- Access to capital
 - Backed by Fortress Investment Group
 - Backed by GCM Grosvenor
- Flexibility in teaming
 - Long Ridge team is comprised of experienced, energy project business development professionals
 - Locations provide all key assets to move projects forward
 - Location has space for production and conversion of H2
 - Transmission, Storage and Distribution of H2 on site
 - Onsite consumption of H2 with 485MW power plant
- H2 Value Chain Equity Participation
 - Flexibility to participate in equity positions across the H2 value chain to advance project development
 - Production
 - Conversion
 - Transmission, Storage, and Distribution