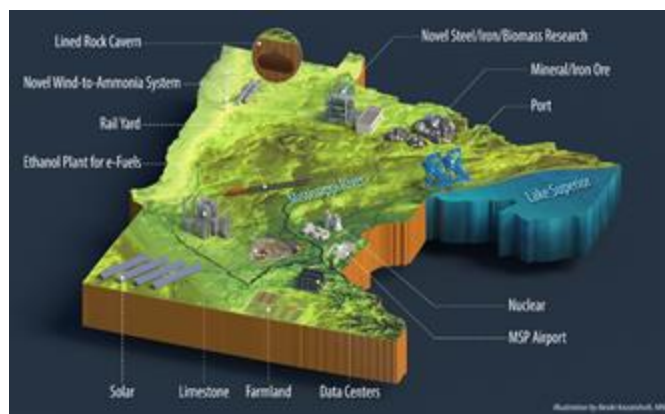
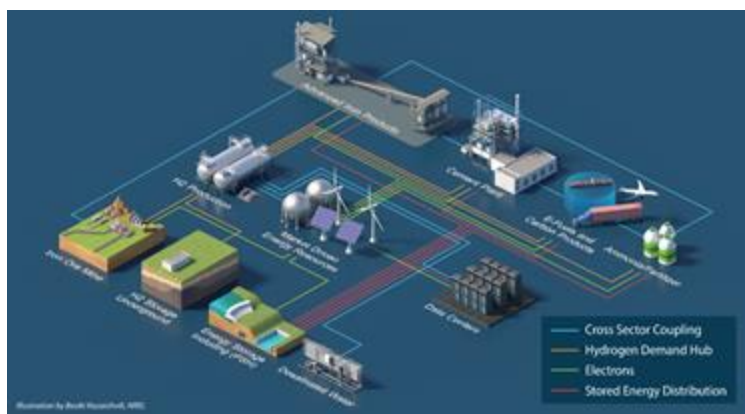


## **Opportunity: Leading Energy Innovation & Strengthening Bedrock American Industries**

MITI is a regional effort to accelerate the transition of bedrock American industries to a new era of innovation and **global competitiveness**. The initiative will demonstrate integration of **advanced, cross-sector-coupled industries** with **market-driven energy solutions**, to meet national objectives:

- Unleash **US energy abundance** and innovation
- Promote **market-driven energy** choices
- Improve **grid reliability** and security
- Create **globally-competitive industries**
- Increase domestic steel production for **national security**



## **Challenge: Are NRRI and Minnesota Prepared?** **2025 UMN Legislative Request - Research**

- **SF 2734 / HF2520** - Minnesota Green Iron initiative at the University of Minnesota's NRRI appropriation
- **SF 2881** - Permanent University Fund mining royalty income allocation modifications

### **Invest in NRRI, Invest in Minnesota**

Targeted \$9M recurring investment in world class facilities and personnel *to partner effectively with industry, agencies and national laboratories.*

#### **\$9M RECURRING INVESTMENT**

- Researcher Cluster Hire (15) **\$3M**
- Research Support Staff (16) **\$2M**
- Grant matching **\$1M**
- Instrumentation & equipment **\$1M**
- Infrastructure investment **\$2M**

#### **IMPACTS**

- National Lab, Industry, Agency, Tribal partnerships
- Proactive Community, Tribal, Citizen Engagement
- Increased federal investment in Minnesota/Midwest
- Expanded National Lab presence in Minnesota
- Establish MN as national leader for industrial transformation
- Globally-competitive industries
- Stronger, resilient communities



## NRRI Legislative Charter

The Natural Resources Research Institute was created by the state legislature to inform decisions on our natural resources, with the charter to foster “*economic development of Minnesota’s natural resources in an environmentally sound manner to promote private sector employment.*”  
- Minnesota State Legislature, 1983

## Strategic Initiatives Deliver Integrated Research Solutions

NRRI delivers integrated research solutions to support the stewardship of Minnesota’s natural resources by integrating across three strategic initiatives:



### Iron and Minerals of the Future

Develop carbon-neutral mineral resource extraction and processing strategies with reduced water, energy and effluent to support a portfolio of high-value products.



### Forest Industries and Bioeconomy

Demonstrate technologies to transform renewable biomass and organic waste streams into refined, engineered carbon materials.



### Ecosystem Resilience

Understand relationships between water, land and mineral resources to manage our needs and impacts.

## Delivering Strong Returns on State and National Investments

**Modernizing Minnesota’s Iron and Steel Industry:** U. S. Steel partner in 2024 KeeTac DRG plant upgrade

**Impacts:** >\$150M project investment in MN, new jobs, prep for DRI production

**Engineering Biocarbon for Green Steel Industry:** Recognized leader in carbon materials for metallurgy applications

**Impacts:** new biomass markets, competitive steel industry

**Reducing Sulfate in MN waters:** MPCA partnership to roll out emerging technologies

**Impacts:** enable communities, industry to meet sulfate standards economically

**Expanding Markets for InnovaTree™:** High volume industrial biomass and phytoremediation applications

**Impacts:** nursery contracts, biobased products, remediation

**Delivering Data with High Tech Tools:** Minnesota Natural Resources Atlas online data mapping tool for natural resource planning and management. ForCAST tool offers a harvest outlook for state’s changing forest ecosystems

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**NRRI Mission:** Deliver integrated research solutions that value our resources, environment and economy for a sustainable and resilient future.

[NRRI.UMN.EDU](http://NRRI.UMN.EDU)