

City of Beulah and Mercer County Response to Executive Order 14241 - Modeling a Sustainable Economic Revolution


Introduction: DOE + REMI Modeling Overview


In response to the Department of Energy’s critical minerals initiative and Executive Order 14241, the Mercer County/City of Beulah have developed a bold and integrated economic revolution strategy centered on clean resource development, national security, and sustainable growth. Using the REMI economic modeling platform, this plan—anchored by a nine-part development “wheel”—demonstrates the potential to reshape a coal economy into a national model for secure domestic mineral processing, energy independence, and resilient rural revitalization. From rare mineral earth extraction and separation to workforce housing, each facet is backed by feasibility, proven technology, public-private investment, and measurable outcomes.

At the heart of the strategy is Talon Metals’ \$365.7M battery minerals processing facility, which will serve as a cornerstone of domestic nickel and copper production. Leveraging legacy infrastructure—lower costs than imports from China. Surrounding this investment are eight additional initiatives—from REM recovery from coal and fly ash, and separation facilities (Mine to Magnet), to childcare, and data centers—that enable workforce participation, community sustainability, and technological innovation. Together, these interconnected projects position Mercer County/City of Beulah as a hub of next-generation energy and mineral development, creating more than 1,000 jobs and billions in projected economic output.

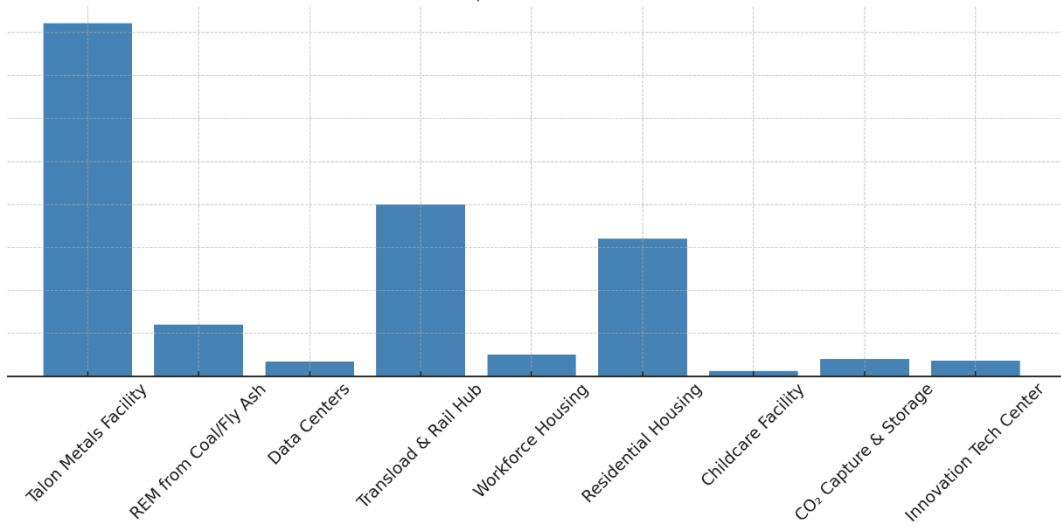
REMI modeling confirms substantial gains in local gross domestic product (GDP), employment, and tax revenue—allowing the county and city to lower property tax burdens while attracting new industry. Perhaps most importantly, this strategy doesn’t just respond to an economic opportunity. With federal and state partners, Mercer County/City of Beulah are ready to lead in reshoring critical mineral supply chains, repowering coal communities with new technology, and redefining what energy transition looks like in America’s heartland.

This report outlines the national impact, regional opportunity, and community benefit across nine interconnected pillars—represented in the *Beulah Economic Development Wheel*.

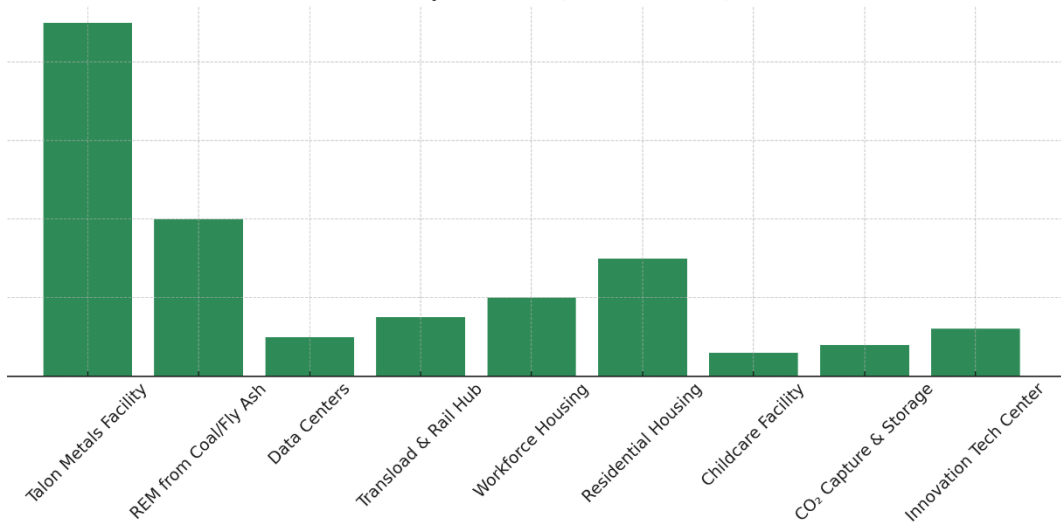
 [View the full REMI-modeled Beulah Report](#)

 [Executive Order 14241 – Immediate Measures to Increase American Mineral Production](#)

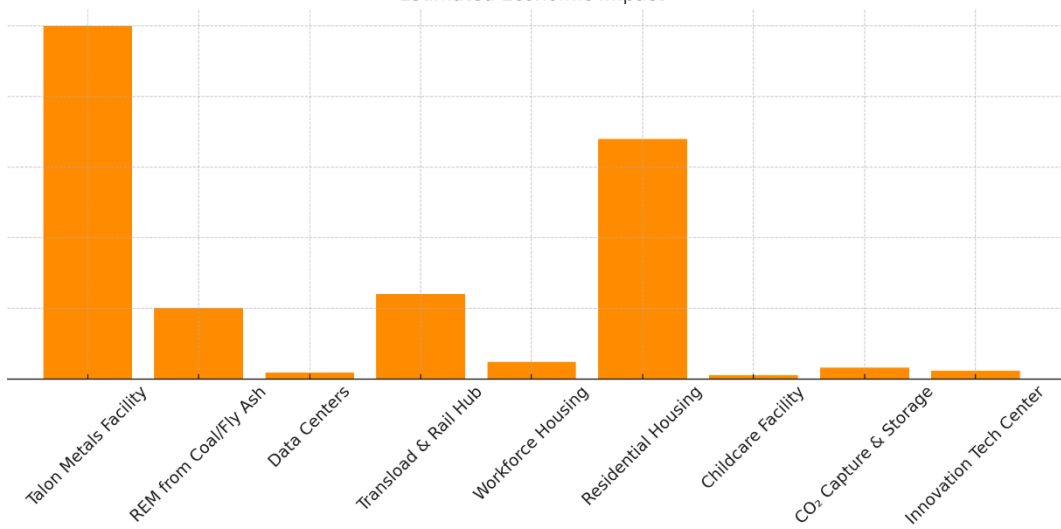
Estimated Capital Investment (CAPEX)



Estimated Jobs Created (Direct + Indirect)



Estimated Economic Impact



Estimates based on REMI modeling, project partner projections, and publicly available sources. Subject to refinement.

THE Mercer County/ City of Beulah ECONOMIC DEVELOPMENT WHEEL: 9 STRATEGIC INITIATIVES

(As visualized in the wheel diagram – reference image on page 1 of strategy brief)



1. Talon Metals Nickel & Copper Processing Facility

- **\$365.7M CAPEX**, backed by DOE grants
- \$2.5B projected revenue over 7 years
- Produces U.S. sourced battery-grade nickel and copper
- Approximately 450 jobs in construction and operations

Talking Point: The only DOE-backed U.S. project to counter China's dominance in nickel for defense and EV applications.

2. REM Extraction from Coal & Fly Ash

- Over 75 years of coal reserves
- Utilizing technology developed by UND for extracting REM from Lignite coal
- Estimated **\$400B+ worth of REM** in U.S. fly ash reserves
- Two proven extraction methods: acid leaching and thermal/mechanical separation
- Separation facilities (Mine to Magnet)

Talking Point: Mercer County/City of Beulah becomes a national model for recovering critical minerals from legacy coal byproducts—securing supply chains.

3. Data Centers (Digital Infrastructure)

- Three sites planned with scalable energy needs (2–150 MW)
- Low-cost, reliable power from coal makes Mercer County/City of Beulah ideal for blockchain, AI, or cloud services
- First 2 MW site requires just \$17M CAPEX and could be operational by 2026

Talking Point: High-tech meets energy advantage—data centers power regional diversification and recurring tax revenue.

4. Industrial Transload + Rail Hub

- Multi-modal hub includes frac sand transfer, tire recycling, LNG loading, and more
- Existing industrial rail zone requires \$200M CAPEX for full build-out
- Up to **75 FTEs** estimated if all segments are developed

Talking Point: Leverages Mercer County/City of Beulah's rail infrastructure to move materials, products, and recycled goods across North America.

5. Workforce Housing

- Two tracks:
 - 120-unit multi-story complex in Beulah
 - 320-acre lake site for prefabricated cabins near Lake Sakakawea*
- Housing will support incoming workers from Talon, REM facilities, and new industries

*When workforce housing is not needed this site will be utilized as a resort

Talking Point: Housing removes a major barrier to economic growth and gives local workforce stability and community.

6. Residential Development

- **352+ new homes** needed just for Talon-related growth
- 60+ city acres already available for single-family or multi-family builds
- \$8M/year in projected CAPEX; \$1.7B economic impact over 20 years

Talking Point: This is not just workforce housing—it's generational housing for a new Mercer County/City of Beulah economy.

7. Childcare Facility

- Vacant city-owned skilled nursing building to be converted
- Supports **200 children (0–12 yrs)** and includes adult daycare
- Fully permitted and shovel-ready at just \$6M CAPEX

Talking Point: Solves a 79% childcare gap in the county and enables parents to rejoin the workforce.

8. CO₂ Capture & Storage (CCS)

- EPA-approved Class VI well geology under Mercer County/ City of Beulah
- Can pair with fly ash processing and Talon tailings management
- CCS technology also tied to Travertine's CO₂-to-building materials innovations

Talking Point: Positions Mercer County/City of Beulah as a low-carbon industrial hub and supports ESG goals of private-sector partners.

9. Innovation Technology Center

- Partnerships: UND, EERC, BSC, NDSU, University of Mary, trade unions
- Will support workforce training for REM extraction, mining, processing, and tech roles
- 50–60 construction jobs + 26 permanent FTEs

Talking Point: This is where ND trains the new American energy and minerals workforce.

REMI Modeled Impacts (Available in Detail Upon Request)

- Expanded property tax base = lower rates
 - Regional GDP growth in the billions
 - 1,000+ total FTEs modeled across project lifespan
 - Population and school enrollment growth modeled positively
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Next Steps & In-Person Meeting

We would welcome the opportunity to walk through the REMI model results in person.

Additional Resources

Learn more about:

[Talon Corporate Presentation](#)

- [TALON TO RECEIVE US\\$2.47 MILLION IN FUNDING FROM THE DEFENSE LOGISTICS AGENCY - Talon Metals Corp](#)

What are rare earth elements, and why are they important?

<https://www.americangeosciences.org/critical-issues/faq/what-are-rare-earth-elements-and-why-are-they-important>

North Dakota researchers find cost-effective way to extract rare-earth elements from coal

<https://www.mprnews.org/story/2023/12/08/north-dakota-researchers-find-costeffective-way-to-extract-rareearth-elements-from-coal>

Utilization of coal combustion by-products in sustainable construction materials

<https://www.sciencedirect.com/science/article/abs/pii/S0921344910001588>

TVA Coal Combustion Byproducts Fuel Economic Growth

<https://www.tva.com/environment/coal-ash/tva-coal-combustion-byproducts-fuel-economic-growth>

DOD Looks to Establish ‘Mine-to-Magnet’ Supply Chain for Rare Earth Materials

<https://www.defense.gov/News/News-Stories/Article/Article/3700059/dod-looks-to-establish-mine-to-magnet-supply-chain-for-rare-earth-materials/>

Extraction of Rare Earths for Advanced Applications

<https://www.sciencedirect.com/topics/engineering/rare-earth-extraction>

Mission Critical: To get critical minerals and rare earth minerals from coal waste

<https://www.psu.edu/news/research/story/mission-critical-get-critical-minerals-and-rare-earth-metals-coal-waste>

Exploring synergistic and individual casual effects of rare earth elements and renewable energy on multidimensional economic complexity for sustainable economic development

<https://www.sciencedirect.com/science/article/abs/pii/S0306261924005750>

Key Links

-  [Argonne](#)
-  [REMI Modeling](#)