2026 LEADERSHIP NOW MBA POLICY CHALLENGE

Powering the Rust Belt Forward: A Clean Energy Reindustrialization Strategy for the American Midwest

Restoring Manufacturing, Creating Jobs, and Building a 21st-Century Workforce

Policy Areas: Economic Competitiveness | Clean Energy | Future of the Workforce
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1. The Problem: Deindustrialization Meets Supply Chain Vulnerability

The American Midwest has lost approximately 3.5 million manufacturing jobs since 1979, hollowing out communities across Ohio, Michigan, Indiana, Wisconsin, and Pennsylvania.[1] In counties that once anchored the U.S. industrial economy, median household incomes remain 18% below the national average, and prime-age male labor force participation has fallen to historic lows.[2] The social consequences rising poverty, substance abuse, and civic disengagement are well-documented and politically salient across the ideological spectrum.

Simultaneously, the United States faces a critical clean energy supply chain vulnerability. As of 2024, the U.S. imports over 80% of its solar panels and a significant share of wind turbine components and battery materials predominantly from China.[3] The Department of Energy projects U.S. clean energy demand will require 1.5 million additional workers by 2030, yet current training pipelines fall far short.[4] These two crises regional economic collapse and strategic supply chain dependence share a common solution.

> **Core Thesis:** The Midwest's legacy manufacturing infrastructure, skilled (if displaced) workforce, and geographic advantages make it the ideal anchor for America's clean energy industrial base but only if federal policy deliberately directs capital, incentives, and talent development to the region.

2. The Policy: Three Interlocking Mechanisms

Mechanism 1: Midwest Clean Energy Manufacturing Credit (MCEMC)

We propose a Midwest Clean Energy Manufacturing Credit (MCEMC) a targeted federal tax credit and direct-pay subsidy program enacted via reconciliation legislation, administered by the IRS and Department of Energy jointly.

- 10% bonus ITC in MRZs: Facilities located in MRZ counties (with higher than 1.2 times the national unemployment rate and legacy industrial land) get a 10 percentage point uplift to their current Investment Tax Credit of 30%.
- Expanded 45X Production Credit: Expand and extend the Section 45X production credit to apply to solar panels, wind turbine parts, battery cells, electrolyzers, and drivetrain manufacturing facilities, offering competitive unit-based production credit against Chinese state support.
- Option for Direct Payment: Manufacturers can opt to receive cash payments instead of the tax credits, allowing early-stage and unprofitable companies to benefit from incentives.

- Regional Supply Chain Bonus: 5% credit bonus on facilities sourcing over 60% of input materials locally.
- Credit Lock-in for 10 Years: Statutory lock-in provides 10 years of credits for facilities and ensures the extended period that is required for capital investments.

Legislative Pathway: MCEMC builds upon the existing IRA tax infrastructure (sections 45X, 48C), which allows amendment via budget reconciliation without a supermajority in the Senate. Designation of MRZs will be done by the Secretary of Commerce based on available Bureau of Labor Statistics and census data; no new administrative infrastructure.

Mechanism 2: Midwest Grid Modernization & Site Remediation Fund

A manufacturing investment strategy will need tangible infrastructure assets. We recommend a $50 billion, ten-year Federal Investment Fund program that is 60% grant-funded and 40% low-interest loans aimed at:

- Equipping Midwest power transmission infrastructure and constructing HVDC power lines linking wind farms with manufacturing hubs
- Elevating EPA Brownfields redevelopment funds with a targeted Midwest Industrial Redevelopment initiative for brownfield sites formerly occupied by steel mills, automotive factories, and coal facilities for new green energy manufacturing plants
- Jointly investing with states in Clean Energy Industrial Parks with joint infrastructure assets, such as power, water, and logistics services, to decrease costs and speed up the implementation process

Managed via the Department of Energy's Loan Programs Office and the EPA. Matching from states (20%) will be required.

Mechanism 3: Midwest Clean Energy Workforce Education Initiative (MCEWI)

A reindustrialized Midwest only delivers on its promise if local workers can access the jobs it creates. The MCEWI is a $15 billion, 10-year federal-state-private partnership — the workforce backbone of this proposal — structured across five components:

- Community College Clean Energy Grants ($4B): Competitive grants to Midwest community colleges to develop industry-co-designed certificate and associate degree programs in solar fabrication, wind maintenance, battery manufacturing, industrial automation, and grid technology. All programs require paid internship or apprenticeship components. Target: 200,000 credentials awarded over 10 years.
- Registered Apprenticeship Expansion ($3B): Scale Registered Apprenticeship programs in clean energy trades in partnership with IBEW, USW, and UAW. A $5,000 federal tax credit per apprentice hired and retained 12+ months incentivizes employer participation. Priority enrollment for displaced manufacturing workers, veterans, and fossil fuel community residents. Target: 150,000 new apprentices by 2032.
- University Clean Energy Innovation Hubs ($4B): Eight federally funded hubs co-located at Midwest research universities (e.g., University of Michigan, Ohio State, Purdue, University of Wisconsin), each receiving $500M over 10 years for applied R&D, graduate training with direct industry placement pipelines, and technical assistance to small and mid-size manufacturers. Target: 40,000 engineers and researchers trained.
- Displaced Worker Rapid Retraining ($2B): Income support at 80% of prior wages (up to 18 months) during retraining for workers displaced from fossil fuel industries and legacy manufacturing. Outcome-

based funding for providers tied to 90-day job placement rates. Wraparound services (childcare, transportation, mental health) included. Target: 100,000 workers retrained.

- K-12 CTE Pathways ($1B): Career and Technical Education programs in Midwest high schools with dual-enrollment pathways into community college programs and direct apprenticeship pipelines. Target: 500 new CTE programs across the region.

3. Impact: Quantified and Realistic

Employing DOE and BLS employment multipliers for manufacturing (direct/total employment = 2.5x) combined with IRA deployment data indicating a private capital leverage ratio of 4.7 dollars of private capital for every dollar of federal incentive spent on clean energy manufacturing[5] NREL (2024), our projection includes:

- A net creation of more than 410,000 new jobs in the Midwest in 10 years: Approximately 180,000 direct jobs in manufacturing, 140,000 jobs in the logistics/supply chain sector, and 90,000 jobs as induced service sector employment. Average earnings: $58,000 - $75,000/year.[6]
- $140 - 245 billion in total private investment leveraged from approximately $35B in total direct federal incentives over 10 years (4x conservative multiplier application).
- Sufficient domestic component manufacture to satisfy 60% or more of U.S. demand by Year 10, minimizing reliance on China and Southeast Asia.
- 490,000+ workers trained through MCEWI programs, tackling the DOE's forecasted shortfall of 1.5 million workers.
- Financial payback achieved in 8-10 years: Total annual revenues generated from new manufacturing activities totaling $12

Novelty: As opposed to the generalist nature of the IRA's plan, the geographical targeting in the MCEMC ensures maximum effectiveness in the communities with the greatest needs through the localized nature of its supply chain. The result-based funding approach and the co-design requirements in the MCEWI are novel features of this proposal compared to past workforce development programs in the federal government.[7]

4. Feasibility, Tradeoffs & Political Coalition

Bi-partisan framing: This proposal is crafted with the intention of appealing to both parties. For Republicans, this proposal enhances American manufacturing and decreases America's reliance on China, while promoting American energy independence without mandating technology choices. For Democrats, this proposal creates unionized jobs, advances climate policies, and invests in neglected communities. Republican and Democratic governors of Ohio, Michigan, Wisconsin, and Pennsylvania have a strong political motive to back this proposal.

Trade-offs considered and solved:

- "Industrial policy makes winners." The US currently subsidizes fossil fuels at $20B+/year.[8] China, Germany, and South Korea subsidize the manufacture of clean energy technologies. The MCEMC takes the approach of utilizing market-based inducements to allow the market to determine winners of the eligible group of companies.
- "The price is too high." Fiscal break-even in 8-10 years and net positives afterwards. The funding opportunity under Section 48C was over-subscribed five times in Round 2, illustrating private-sector interest which magnifies government spending (DOE, 2024).[9]

- "The workforce program doesn't deliver results." MCEWI funds programs that demonstrate measurable success and incorporate job placement stipulations, industry involvement, and earn-and-learn programs – the characteristics associated with success in the literature.[10]

Implementation risks: Supply chain localization provisions may drive up near-term costs for manufacturers. We suggest the introduction of a phased approach (40% domestic content in year one and 60% in year five) for supply chains to grow accustomed to the requirements. Statutory provisions should include the criteria used to designate MRZs to guard against political maneuvering.

5. National Salience: Why This Wins Votes and Deserves Coverage

The Midwest is the most important battleground state in America. Ohio, Michigan, Wisconsin, Pennsylvania, and Minnesota together have 68 electoral college votes and have decided the past four presidential elections. Economic insecurity – the fear of losing a job, being paid less for work than before, and feeling that Washington has forgotten about working people – is the driving factor in all of these states.

The message proposed here addresses economic insecurity head-on. We know that we cannot turn back the clock on economic globalization. However, this proposal shows how we can create new jobs that are here for the long term by doing the things that Midwestern voters care about and want to see from government policy: creating good jobs, making products, and keeping young people from leaving home to find work.

In a time where both parties are scrambling to claim the mantle of economic nationalism and revitalizing manufacturing, "Powering the Rust Belt Forward" proposes a policy agenda that is bold enough to garner national media attention but detailed enough to be believed by voters, businesspeople, and policy makers alike.

Citations

1. Bureau of Labor Statistics, "Manufacturing Employment Trends, 1979–2023," U.S. Department of Labor, 2024.
2. U.S. Census Bureau, American Community Survey 2022; Federal Reserve Bank of Cleveland, "Labor Market Conditions in the Midwest," 2023.
3. U.S. Energy Information Administration, "Solar Panel Import Data," 2024; BloombergNEF, "Clean Energy Supply Chain Risk Report," 2024.
4. U.S. Department of Energy, "United States Energy & Employment Report (USEER)," 2024.
5. National Renewable Energy Laboratory (NREL), "IRA Manufacturing Investment Leverage Analysis," 2024.
6. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, Manufacturing Sector, 2023.
7. Heckman, J. and LaFontaine, P., "The American High School Graduation Rate," Journal of Labor Economics, 2010; GAO, "Workforce Training Programs: Opportunities Exist to Improve Outcomes," 2023.
8. International Monetary Fund, "Fossil Fuel Subsidies in the United States," 2023.
9. U.S. Department of Energy, "48C Advanced Energy Project Credit — Round 2 Application Data," 2024.
10. Accenture / Jobs for the Future, "What Works in Workforce Development: Evidence Review," 2023.

Appendix — Supporting Tables & Data

Table A1 — MCEMC Incentive Structure Summary

Incentive	Mechanism	Target Sector	Est. Annual Federal Cost
MCEMC Base ITC Bonus (+10%)	Enhanced ITC for MRZ facilities	All clean energy manufacturing	$8–12B/year
45X Production Credit Expansion	Per-unit production credit	Solar, wind, batteries, EVs	$15–20B/year
Supply Chain Localization Bonus (+5%)	Additional ITC for 60%+ domestic sourcing	All clean energy manufacturing	$3–5B/year
Direct Pay Election	Cash in lieu of tax credit	Startups & early-stage manufacturers	Included above

Table A2 — MCEWI Workforce Initiative Summary

Component	10-Year Investment	Primary Beneficiaries	Outcome Target
Community College Grants	$4B	Recent graduates, career changers	200,000 credentials awarded
Registered Apprenticeship Expansion	$3B	Displaced workers, young adults	150,000 new apprentices
University Innovation Hubs (×8)	$4B	Engineers, researchers, SMEs	40,000 graduates; 8 hubs
Displaced Worker Rapid Retraining	$2B	Fossil fuel & legacy mfg. workers	100,000 workers retrained
K-12 CTE Pathways	$1B	High school students	500 new CTE programs
Total MCEWI	**$15B**		**490,000+ workers trained**

Table A3 — Projected Economic Impact (10-Year)

Metric	Projection	Methodology / Source
Direct manufacturing jobs	~180,000	DOE USEER sector employment ratios, 2024
Indirect supply chain jobs	~140,000	BLS 2.5x manufacturing employment multiplier
Induced service/community jobs	~90,000	BLS regional spending multiplier
Total net new jobs	**~410,000**	
Private investment mobilized	$140–245B	NREL 4.7x IRA leverage ratio (conservative: 4x applied)
Domestic clean energy component share	60%+ of U.S. demand	EIA demand projections + facility capacity modeling
Fiscal breakeven	Year 8–10	CBO-style static + dynamic scoring estimate
Annual tax revenue by Year 10	$12–18B	BLS wage data × effective tax rates, federal + state

Table A4 — Implementation Roadmap

Phase	Timeline	Key Milestones
Phase 1: Foundation	Year 1–2	Enact MCEMC via reconciliation; designate MRZs; issue first MCEWI community college grants; launch brownfield remediation; establish Midwest Clean Energy Manufacturing Council
Phase 2: Acceleration	Year 3–5	First MCEWI graduates enter workforce; anchor manufacturers begin facility construction; University Innovation Hubs operational; apprenticeship programs at scale; grid modernization underway
Phase 3: Scale	Year 6–10	Full supply chains operational; 400,000+ jobs created; 60%+ domestic clean energy component production; program evaluation and credit recalibration

Table A5 — Tradeoffs & Objection Responses

Objection	Response
"Government shouldn't pick winners."	MCEMC uses market-compatible incentives, not mandates. The U.S. already subsidizes fossil fuels at $20B+/year (IMF, 2023). China, Germany, and South Korea actively subsidize clean energy manufacturing — unilateral restraint cedes the market.
"The cost is too high."	Fiscal breakeven in 8–10 years with net positive returns thereafter. Section 48C was oversubscribed 5x in Round 2, demonstrating strong private demand that amplifies federal dollars (DOE, 2024).
"Workforce programs don't work."	MCEWI funds only outcome-based programs with job placement requirements, industry co-design, and earn-while-you-learn models — the specific features that distinguish effective programs (GAO, 2023; JFF, 2023).
"Why the Midwest specifically?"	Existing industrial infrastructure, skilled displaced workforce, central logistics geography, abundant wind/solar resources, and the greatest need for economic revitalization maximize both economic and social return on investment.