

NUCLEAR SERIES PART 2

WYOMING'S NUCLEAR SUPPLY CHAIN OPPORTUNITIES AND CHALLENGES: COMPONENT MANUFACTURING

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WHY THE STUDY WAS NEEDED

Wyoming is critical for the U.S. energy economy, producing the third most energy of any state (Energy Information Administration, 2022b). The prominence of Wyoming as an energy supplier has generated interest in adding nuclear produced electricity to the State's portfolio.

For nuclear power plant projects to mature, nuclear components must be supplied by manufacturers. This report studies the opportunities, challenges, and benefits of developing this nuclear component manufacturing sector in Wyoming.

ABOUT THE STUDY

This report quantifies the economic outcomes of fostering a nuclear component manufacturing industry in Wyoming. The unique challenges and opportunities of attracting the industry to Wyoming are identified. Additionally, an event study is performed that estimates economic outcomes under a range of future nuclear power development paths.







WHAT THE RESEARCHERS CONCLUDED

The analysis importantly concludes that there is potential to establish a nuclear component sector in Wyoming. Small nuclear components can be manufactured in the State without significant changes to legal or economic conditions. Developing infrastructure for large nuclear components is more difficult, requiring significant State support to progress.

Table 2:
Economic Impacts

Nuclear Power Demand Scenario	Low	Middle	Mid-High	High
Jobs (Person-Years)	0	800	1,600	14,100
Tax Revenue⁹³ (Mill. USD)	0	\$3.5	\$7.1	\$61.5
Benefits	None		Industry colocation	
Costs	No major costs			

Table 1:
Significant Economic Factors Related to Wyoming Nuclear Component Manufacturing
Small Components

	Level	Summary
 Economic	Minor Obstacle	Shift to foreign manufacturing.
 Existing Industries	Moderate Advantage	Existing Wyoming manufacturing sector.
 Tax Structure	Major Advantage	Tax exemption for manufacturing equipment.
 Location	Minor Obstacle	Cold weather consideration. No nuclear power produced.
 Legal	Minor Obstacle	Added cost of compliance varies by part.
 Technology	Minor Obstacle	Existing advanced manufacturing methods can increase growth.
 Overall Score	Minor Advantage	Incentives for manufacturing. No major barriers.

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