



NUCLEAR SERIES PART 1

WYOMING'S NUCLEAR SUPPLY CHAIN OPPORTUNITIES AND CHALLENGES: URANIUM ENRICHMENT

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WHY THE STUDY WAS NEEDED

Wyoming is a keystone state in the energy supply chain of the United States. Through the mixture of coal, oil and gas, and wind energy, the State produces 6.1% of the country's energy, leading the nation in energy production per capita (Energy Information Administration 2021). Nuclear produced electricity can become a core component of this resource mix as the energy economy expands.

Starting at the uranium mine and ending at material storage, the nuclear supply chain encompasses multiple sectors with unique economic challenges and opportunities for the State. This report provides a preliminary analysis of the various economic factors that could stimulate or inhibit potential investments in the Wyoming fuel enrichment sector.

ABOUT THE STUDY

This report quantifies the opportunities and the economic outcomes of fostering a uranium enrichment industry in Wyoming. The unique challenges and advantages of attracting the industry to Wyoming are identified. Additionally, economic analyses were performed that estimate potential outcomes of building a uranium enrichment facility.

WHAT THE RESEARCHERS CONCLUDED

The research team found limited opportunities for construction of new uranium enrichment production facilities in Wyoming. The considerable financial commitment required for enrichment infrastructure, time required for permitting, and competition with established producers were identified as major obstacles. However, future enrichment sector development in Wyoming would result in numerous economic benefits by increasing state tax revenues, creating employment opportunities, and promoting a regional nuclear industry.

Table 2 shows the ranking of the seven most significant economic factors affecting future Wyoming investment opportunities in uranium enrichment. The team concluded that a single adverse factor could result in a major obstacle to new development independent of other economic factors. For example, this was the case for existing industries.

Table 2
Significant Economic Factors Related to Wyoming Enrichment

Factor	Level	Summary
Economic	Moderate Obstacle	Natural monopoly limits entry
Existing Industries	Major Obstacle	Operating firms have a cost advantage
Tax Structure	Moderate Advantage	Net taxes lower than other states
Location	Minor Advantage	Existing uranium supply in state
State Legal	Minor Obstacle	Local zoning and construction permitting
Federal legal	Minor Obstacle	NRC license and environmental review
Technology	Neutral	Sufficiently developed
Overall Rating	Major Obstacle	Development requires financial support

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