



NUCLEAR SERIES PART 3

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

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WHY THE STUDY WAS NEEDED

This report is one of a series evaluating the feasibility of developing an integrated nuclear sector in Wyoming. From the uranium recovery mouth to spent fuel processing, each step in the nuclear supply chain has unique economic challenges. To compare the opportunities for Wyoming across the nuclear supply chain, a qualitative scoring system of advantages and obstacles is applied. The summary of these scoring criteria for uranium recovery is provided in Table 1.

ABOUT THE STUDY

This paper gives an overview of the uranium extraction process and the contributing factors of Wyoming uranium production. It identifies supply-chain market structures that provide opportunities in Wyoming for uranium extraction. Then, an economic impact analysis was created for the uranium recovery industry.

WHAT THE RESEARCHERS CONCLUDED

The present economic benefits from uranium recovery facilities are constrained by low production levels. Most jobs at uranium recovery facilities are tied to exploration and drilling expenditures. Therefore, if uranium expands in Wyoming, the development will create disproportionately more jobs and tax revenue than current levels.

Table 1:

Significant Economic Factors Related to Wyoming Uranium Recovery








Uranium Recovery		
	Level	Summary
 Economic	Moderate Advantage	Uranium prices are near all-time highs, but are sensitive to global trends.
 Existing Industries	Moderate Advantage	Uranium operations on standby can be reactivated.
 Tax Structure	Minor Advantage	Tax incentives are provided when uranium prices are low.
 Location	Major Advantage	Largest uranium reserves in the U.S.
 Federal Legal	Moderate Obstacle	High restoration costs required.
 State Legal	Moderate Advantage	Wyoming is an agreement state, reducing regulatory compliance costs.
 Technology	Minor Advantage	In situ technological growth promotes Wyoming projects.

Table 2:

Wyoming: Total Benefits and Costs of Uranium Recovery

Production Scenario	Current	Middle	High
Production (Thousand Pounds)	146	6,000	12,000
Jobs (Person-Years)	147	4,600	17,700
Tax Revenue (Mill. USD)	\$0.362	\$236	\$903
Other Benefits	Reduced contamination risk compared to legacy operations.		
Social Costs	Split mineral and property rights can create competing interests. Potential aquifer contamination.		

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