

Direct Community Economic Benefits Associated with the Kemmerer Unit 1 Sodium Facility: A Research and Practice Brief for Engaging Communities in Advanced Nuclear Energy Facility Siting

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In November 2021, the private company TerraPower, in partnership with electric utility PacifiCorp and the United States Department of Energy (DOE) via its Advanced Reactor Demonstration Program (ARDP), announced plans to site its Sodium advanced nuclear reactor near the Naughton power plant in Kemmerer, located in southwest Wyoming.¹ At the time, the Naughton power plant was scheduled for retirement.¹ This project marks the first commercial advanced nuclear energy facility to begin construction in the United States.² This research explores the case of the Sodium project in Kemmerer, Wyoming.³ Findings can inform an adaptable community engagement process for advanced nuclear energy siting and development, as proposals to develop similar facilities are rapidly increasing.^{4 5 6}

Community-based approaches in this research project included the following:

- 1** Hosting interviews with local community members, decision-makers, developers, and other stakeholders.
- 2** Convening a project advisory board.ⁱⁱ
- 3** Hosting a *Community Conversations on Sodium and Kemmerer's Energy Future* stakeholder engagement event.

Introduction

Through this research project's community-based activities, community members shared common questions about the Sodium facility and TerraPower's community engagement strategies. We then investigated those questions and worked to provide clear, evidence-based answers to share back with the community. We gathered this information by attending public meetings, reviewing documents, and communicating with local officials.

In our various conversations with community members, they frequently asked not just what kinds of and how many benefits may confer to the local community from the Sodium project, but where they come from, how they are shared, and when they will occur. This brief shares what we learned about direct economic benefits to local communities from the TerraPower Sodium facility.

While there are many possible indirect economic benefits for southern Lincoln County and Kemmerer from the TerraPower Natrium facility (e.g., new businesses, jobs, and training opportunities), the direct economic benefits include: (1) impact mitigation payments from the Wyoming Industrial Siting Council (ISC); (2) annual property tax paid to Lincoln County; and (3) sales taxes, mainly during the construction phase.

Industrial Siting Impact Mitigation Assistance Payments

Under Wyoming’s Industrial Siting Act (ISA), counties and municipalities can receive impact mitigation assistance payments provided by the state to help offset economic impacts from the construction of large-scale industrial projects.^{7,8} The ISC is responsible for administering the ISA and determining both the “socio-economic and environmental impact of industrial facilities” before permitting them for construction and the distribution of impact assistance payments,⁹ as outlined in House Bill No. HB0047, passed in 2022.¹⁰

Total Impact Payment Calculation and Source

For any permitted industrial facility with estimated material costs at or exceeding \$290 million, Wyoming’s Department of Revenue must provide affected counties and municipalities impact assistance payments at amounts and on a timeline determined by the ISC.⁸ The sales taxes collected on a project’s materials generate these impact payments, and their total amount is based on a percentage of the project’s estimated material costs. For a facility with a material cost exceeding \$850 million, the state is capped at spending 1.50% of the material cost on impact assistance payments.¹⁰ HB0047 outlines three material cost ranges and their corresponding percentage caps on impact payment totals (see Table 1).¹⁰ Material costs of the Natrium facility are anticipated to be greater than \$850 million, meaning that total impact assistance payments would be equal to 1.5% of the anticipated materials costs.ⁱⁱⁱ



Natrium Facility Build Site Near Kemmerer, WY

Table 1
Impact Assistance Payments by an Industrial Facility’s Material Costs

Material Costs	Total Impact Assistance Payment
\$290 million - \$350 million	2.25% of materials cost
\$350 million - \$850 million	2.00% of materials cost
> \$850 million	1.50% of materials cost

Impact Payment Request Process

To potentially receive impact assistance payments, personnel from impacted counties and municipalities must send the ISC a Memorandum of Understanding (MOU) requesting a specific portion of the total impact assistance payment amount.⁸ The ISC privately shares the total impact payment amount with county and municipal governments. As a set percentage of a project's estimated material costs, this total impact payment amount is considered the private developer's proprietary information. By law, developers can request to keep this information confidential and to protect it with nondisclosure agreements. In the case of the Natrium facility, TerraPower made such a request, and the ISC issued a protective order requiring county and municipal personnel to sign non-disclosure agreements covering information on the project's estimated material costs.¹¹ As part of their MOUs, parties must provide evidence justifying their impact payment request. Municipalities can choose to either represent themselves in their MOU submission or have their county submit an MOU on their behalf.



Welcome Sign for Kemmerer and Diamondville, Wyoming

While not a formal requirement of the ISC hearing process,^{iv} impacted parties from counties and municipalities can meet before their MOU submissions to negotiate how they will divide the total available impact assistance payments. Finally, impacted parties speak and answer questions about their MOUs at the ISC hearing.⁸

Impact Payment Distribution

Since impact payments are generated by the sales taxes on a facility's construction materials,^v Wyoming cannot distribute those payments until project construction begins. Once construction begins, the company notifies Wyoming's Department of Environmental Quality (WY DEQ); WY DEQ then notifies the Department of Revenue to start distributing payments to impacted counties. Counties are responsible for distributing received payments to municipal governments within their boundaries. While Kemmerer and Diamondville submitted their requests independently of Lincoln County, Lincoln County will distribute payments to these municipalities. Impact payments are paid over the course of a project's total construction timeline at a rate determined by the ISC. Any construction delays would, therefore, delay payment.⁸

If, during the construction phase, a project's material costs exceed the initial estimate, impact assistance amounts will remain consistent unless the ISC grants an amendment to the initial impact assistance payment.¹¹ During the construction phase, parties can also appeal to the ISC to amend their payment amount if they are impacted by the project in an unanticipated way.⁸

Impact Payments for the Natrium Facility

Our team requested records from the WY DEQ for all documents that counties and municipalities submitted to the ISC as part of their impact payment requests for the Natrium facility. Table 2 shows requested impact payments by county or municipality, all of which were approved by the ISC. Counties and municipalities will receive these amounts during the Natrium facility construction process.

Note: prior to submitting their MOUs, representatives from the counties and municipalities listed in Table 2 negotiated impact payment sharing requests. Kemmerer initially planned to request \$7,800,000 and Diamondville initially planned to request \$1,708,677.36. According to documents submitted to the ISC, each reduced their initial impact calculations during these negotiations to accommodate funds to support other communities. According to the records we requested from the WY DEQ, Uinta County accepted a 17.36% reduction to its initial impact payment estimate during the negotiations.

Annual Property Tax

While income from property tax would increase from new housing developments associated with any population increases to the area, this brief focuses on direct income from property tax on the Natrium facility itself. TerraPower’s Natrium facility is located outside Kemmerer/Diamondville municipal limits, therefore Lincoln County and other special purpose taxing districts that include the Natrium site within their boundaries will receive income from property tax on the Natrium site. While Kemmerer and Diamondville will not directly receive them, they will benefit indirectly from County spending. County property tax dollars collected from the Natrium site will be distributed by mill levy^{vi} assessed among the following entities:¹²

- Education (School District #1, Board of Cooperative Educational Services [BOCES], school recreation)
- Lincoln County general fund (general funding, public library, county fair)
- Weed and pest
- Special districts (fire, cemetery, hospital, conservation district, senior citizen)

Property taxes are based on the **assessed value** of a property, which is set at a percentage of the property’s **market value**. **Construction cost** reflects what is spent to build the facility, while market value is determined later by the

Table 2
Approved Impact Assistance Payment Amounts for the Natrium Project Rounded to the Nearest Dollar

County or Municipality	Approved Payment Amounts
Uinta County	\$7,593,933
Uinta County at-Large	\$1,911,186
Evanston	\$4,514,191
Bear River	\$137,183
Mountain View	\$452,197
Lyman	\$579,176
Lincoln County Total	\$5,734,997
Lincoln County at-Large	\$3,644,700
Town of Afton	\$450,000
South Lincoln County Hospital District	\$1,003,297
Kemmerer Diamondville Water Wastewater Joint Powers Board	\$348,000
Town of La Barge	\$189,000
Town of Opal	\$100,000
Kemmerer	\$4,617,000
Diamondville	\$1,413,900
Cokeville	\$850,000
Sweetwater County*	\$820,170
TOTAL	\$21,030,000

Lincoln County Assessor via state formulas that consider the property type, its use, and depreciation.¹³ While the construction cost of the Natrium facility has been publicly estimated as \$4 billion (\$2 billion from TerraPower and \$2 billion provided by United States DOE ARDP funding),¹⁴ the construction cost is not the same as its taxable market value. The market value is typically lower than the build cost because equipment depreciates over time and some specialized equipment may not be fully taxable.¹⁵ Since those calculations cannot be made until the facility is complete, the future property tax base for Lincoln County and its municipalities is not yet known.

To help understand the potential income from property tax on the Natrium facility, this brief uses a hypothetical market value of the Natrium facility set at \$1 billion, which is a simple and very conservative figure. To calculate property tax for an industrial property like the Natrium facility, the county assessor would apply a mill levy to the assessed value of the property, which in Wyoming is set at 11.5% of its market value.¹⁶ While the total mill levy varies by tax district, for the tax district in which the Natrium facility is located, the total mill levy would be 65.13.¹² Hypothetical property tax on a \$1 billion Natrium facility property is calculated below in Figure 1.

Key Terms

Construction Cost:

Total amount spent to build a facility, including materials, labor, and equipment.

Market Value:

The value a property would have if sold under normal conditions, determined by the county assessor using state formulas that consider property type, use, and depreciation.

Assessed Value:

The portion of market value used to calculate property tax. For industrial property in Wyoming, this is 11.5% of market value.

Figure 1

Estimated Annual Income Calculations for Property Tax on the Natrium Facility with a Hypothetical Market Value of \$1 Billion

**Hypothetical
market value**

\$1 billion



Assessed value
(11.5% of market value)

\$1 billion x 11.5% =

\$115 million



Total mill levy
(at 65.13)

\$115 million x 6.513% =

\$7.49 million

In this scenario, a Natrium facility with a market value of \$1 billion would pay annual property tax of \$7.49 million. Lincoln County would then

EXAMPLE

U1 School District
(at 25.00 mill levy)

$$\$115 \text{ million} \times 2.5\% = \mathbf{\$2.88 \text{ million}}$$

divide this amount among the entities described above according to the approved mill levy for each taxing entity. For example, (as laid out in the example above) the U1 school district which covers southern Lincoln County has a mill levy of 25.00 (a portion of the total 65.13 mill levy for the unincorporated county). The U1 school district would receive \$2.88 million each year from the total \$7.49 million in property tax on the Natrium facility. The mill levy for each county entity along with its portion of the \$7.49 million in total property tax is below in Table 3.

Table 3
Estimated Annual Income Per County Entity from Property Tax on a Natrium Facility with a Hypothetical Market Value of \$1 Billion

County Entity	Mill Levy Amount	Hypothetical Annual Property Tax Revenue
Education		
U1 School District	25.000	\$2,875,000
BOCES	0.600	\$69,000
Recreation	1.000	\$115,000
County and State School Foundation Fund	18.000	\$2,070,000
Lincoln County General		
General Fund	9.997	\$1,149,655
Public Library	1.523	\$175,145
County Fair	0.480	\$55,200
Weed and Pest	0.934	\$107,410
Southern Lincoln County Special Districts		
Southern Lincoln Fire	0.819	\$94,185
Cemetery	1.490	\$171,350
Hospital	4.000	\$460,000
Weed and Pest	1.000	\$115,000
Senior Citizen	0.287	\$33,005
TOTAL	65.13	\$7,489,950

Sales Taxes

Wyoming has a baseline 4% sales tax, and there are additional state and local taxes on specific items such as lodging and cigarettes. Lincoln County has an additional 1% “5th Penny” General Purpose tax.¹⁷ All taxes are collected by the state. The state keeps 69% of the 4% taxes collected, 1% is used for an administration fee, and 30% is returned to the county where the taxes were collected.¹⁸ **It is from this 69% of sales taxes retained by the state that the impact mitigation assistance funds are drawn.** Of the funds collected from the 1% “5th Penny” tax, 99% (the total amount minus the 1% administration fee) is returned to Lincoln County. The county distributes the sales tax revenue based on the most recent census population within municipalities and the unincorporated county. In Lincoln County, 51% of the population resides in the unincorporated portion of the county, while 49% lives within municipal corporate limits.¹⁹

Income from sales taxes related to the Natrium plant will be higher during the construction phase, as TerraPower will purchase more construction materials and have a larger workforce paying for lodging and general purchases during this time. However, sales tax generation may remain higher after construction if the local population grows and/or if visitors to the area increase (e.g., in association with TerraPower’s training center). The sale of electricity would normally generate sales tax revenue; however, WY Statute 39-23-105 includes an exemption for electricity from advanced nuclear reactors, so Lincoln County will not receive sales taxes from any sales of energy produced at the Natrium facility.²⁰

TerraPower has suggested that the project will bring \$25 million in local sales tax income to Lincoln County.²¹ Below is a breakdown of how this income could occur. If TerraPower spends a hypothetical \$1.1 billion on taxable local purchases in Lincoln County during construction, it would pay 4% base tax on that amount, of which 30% would return to Lincoln County. Additionally, TerraPower would pay 1% General Purpose tax on the \$1.1 billion, and all but \$110,000 for the 1% administration fee would return to Lincoln County. See Figure 2 below for a detailed breakdown of hypothetical income for Lincoln County from sales taxes on \$1.1 billion in purchases.

Figure 2
Breakdown of Income from Sales Taxes on Hypothetical TerraPower Purchases in Lincoln County Totalling \$1.1 Billion

Taxable purchases in Lincoln County

\$1.1 billion

Baseline state sales taxes

4% x \$1.1 billion = \$44 million

Of state sales taxes, county recovers 30% x \$44 million =

\$13.2 million

General Purpose (5th Penny) tax

1% x \$1.1 billion = \$11 million

County recovers most of this minus 1% admin fee \$110,000 =

\$10.9 million

Total Income for Lincoln County from Sales Taxes

\$13.2 million + \$10.9 million =

\$24.1 million

(to be distributed among the county and municipalities based on population)

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Endnotes

- i. Every two years, the Naughton Power Plant's owner PacifiCorp releases a new Integrated Resource Plan (IRP) which outlines how the utility plans to source its energy portfolio, and each recent IRP has shifted Naughton's future. At the start of this research project in 2021, the most recent IRP scheduled the plant to retire coal-burning Units 1 and 2 by 2025 and its gas-burning Unit 3 by 2029. However, the 2023 IRP directed Units 1 and 2 to convert to natural gas by 2025 and extended the plant's retirement date to 2036. At the time of writing this brief in October 2025, the most recent IRP released in March 2025 further extended the retirement date of Unit 1 to 2042 and Units 2 and 3 (burning natural gas as of the end of 2025) no longer have scheduled retirement dates.
- ii. The research project Advisory Board includes individuals from the Kemmerer/Diamondville area, representatives from statewide environmental organizations with an interest in nuclear energy in Wyoming, and a Native American energy sovereignty initiative leader. In addition to broadly guiding the project, the Advisory Board helped to guide the types of information we investigated and shared at our stakeholder engagement event.
- iii. In interviews conducted for this research project, local officials, policy-makers, and community members suggested that ISC licensing and impact mitigation assistance payments for the Natrium site applied only to the non-nuclear portion of the facility. Under this interpretation, the 1.5% impact assistance payment would be based on the estimated material costs of the non-nuclear components alone. However, our follow-up inquiries with the ISC and other experts did not definitively clarify whether nuclear-related material costs were formally excluded, why they might be excluded, and how this determination is made. Further research is needed to clarify ISC impact mitigation assistance calculations for advanced nuclear facilities, as this may have implications for current and future communities.
- iv. The ISC's process includes a hearing with participation limited to counties and municipalities, residents of impacted municipalities, nonprofits, and record title owners impacted by facility siting. While not permitted in the hearing space, the public can observe proceedings via a live-streamed recording. At the hearing, the ISC decides whether to approve impact assistance payment requests. [Wyoming Department of Environmental Quality (2024). Public notice of application for permit for the Kemmerer Power Station Unit I before the Wyoming Industrial Siting Council - Docket number DEQ/ISC 24-03. <https://content.govdelivery.com/accounts/WYDEQ/bulletins/3bde57e>]
- v. While the ISC is responsible for administering the ISA, the impact assistance payments are not covered by the ISA but by Wyoming's Sales and Use Tax Statutes, Title 39 Chapters 15 - 16. [WY Stat § 39-15-111 (2024). <https://law.justia.com/codes/wyoming/title-39/chapter-15/article-1/section-39-15-111/>. WY Stat § 39-16-111 (2024). <https://law.justia.com/codes/wyoming/title-39/chapter-16/article-1/section-39-16-111/>]
- vi. A mill levy is the property tax rate that local governments set to raise revenue. One mill equals one-tenth of a cent (\$0.001), or \$1 of tax for every \$1,000 of a property's assessed value.

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