

A wide-angle photograph of a desert landscape at sunset. The foreground is filled with low-lying, dry, yellowish-brown shrubs scattered across a sandy terrain. In the middle ground, a range of rugged, brown mountains stretches across the horizon. The sky is a mix of soft orange, yellow, and pale blue, with a few wispy clouds. The overall lighting is warm and golden, characteristic of the 'golden hour' of sunset.

# **MIDPOINT SMALL MODULAR REACTOR PROJECT #1**

## **DRAFT ENVIRONMENTAL IMPACT STATEMENT**

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# POINT OF REFERENCE

## TIERING AND INCORPORATION BY REFERENCE

### USE OF LAVA RIDGE WIND PROJECT FEIS IN THE MIDPOINT SMALL MODULAR REACTOR PROJECT #1 ENVIRONMENTAL REVIEW

This Point of Reference is to document the rationale for tiering from and incorporating by reference the Final Environmental Impact Statement (FEIS) for the Lava Ridge Wind Project (final in December 2024) in the preparation of the Final Environmental Impact Statement (FEIS) for the Midpoint Small Modular Reactor (SMR) Project #1, to be located in Jerome County, Idaho.

#### Background

The proposed Midpoint SMR Project #1 is located on a 320-acre site within the North ½ of Section 17, Township 07 South, Range 18 East in Jerome County, Idaho. This land is geographically within the same study area analyzed under the Bureau of Land Management's (BLM) Lava Ridge Wind Project FEIS. The Lava Ridge FEIS included a detailed analysis (approximately 8,500 pages of analysis) of baseline environmental conditions across this land area, including, but not limited to, geology, soils, vegetation, cultural resources, wildlife, visual resources, and cumulative effects.

#### Justification for Tiering and Reference

In accordance with 40 CFR section 1501.11 and BLM NEPA Handbook H-1790-1 (Sections 5.2 and 5.3), SEDC is incorporating the Lava Ridge Wind Project FEIS by reference and intends to tier from its findings where appropriate. This approach reduces redundancy, promotes efficient NEPA compliance, and leverages the extensive federal investment in prior environmental analysis (approximately \$6,500,000) already completed for this location.

While the proposed SMR project differs in project type and potential environmental impacts from the previously proposed wind project, many of the baseline environmental conditions remain unchanged. SEDC acknowledges that radiological risk, nuclear fuel management, emergency planning, and associated public health and safety concerns require independent, project-specific analysis, which is not addressed in the Lava Ridge FEIS.

### Commitment to Supplemental Analysis

SEDC affirms that all relevant environmental resource areas will be independently assessed and updated as necessary to address the unique nature of SMR development. Where Lava Ridge FEIS findings are cited or utilized in the SEDC DEIS, SEDC will clarify the applicability and ensure all analysis remains consistent with NEPA's requirement for a hard look at potential environmental consequences.

### Conclusion

The Lava Ridge Wind Project FEIS provides a scientifically sound and procedurally valid foundation for many of the environmental conditions relevant to the Midpoint SMR Project #1 site. SEDC will judiciously utilize this prior analysis to inform the SMR FEIS, ensuring that all nuclear-specific environmental, cultural, and safety considerations are fully addressed.

### Addresses

The final EIS and documents pertinent to the Lava Ridge Wind Project are available for review on the BLM ePlanning project website at <https://eplanning.blm.gov/eplanningui/project/2013782/510> and in hardcopy at the BLM Shoshone Field Office, 400 West F Street, Shoshone, ID 83352.



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Midpoint Small Modular Reactor Project #1

## DRAFT ENVIRONMENTAL IMPACT STATEMENT

Draft Environmental Impact Statement

Midpoint Small Modular Reactor Project #1

Jerome County, Idaho

Lead Agency: U.S. Nuclear Regulatory Commission

Cooperating Agency: Idaho Department of Environmental Quality

Responsible Entity: Sawtooth Energy & Development Corporation

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## **D) Abstract**

Sawtooth Energy & Development Corporation proposes to construct and operate the Midpoint Small Modular Reactor (SMR) Project #1 on approximately 320 acres of Bureau of Land Management (BLM) Department of the Interior property located as follows: N. ½ of Section 17, Township 7 South, Range 18 East, Jerome County, Idaho. The Project would deploy two SMR Power Modules, each capable of producing approximately 300 megawatts of electric (MWe) power, for a total output of up to 600 MWe of carbon-free, firm, dispatchable electrical power. The facility would connect directly to Idaho Power's existing Midpoint Substation located approximately 2 ¾ miles west of the project site. It is anticipated that the project will be completed and ready to produce electrical power by midsummer 2031 or early 2032.

The purpose of the Proposed Action is to increase Idaho's baseload electrical generation capacity with clean, resilient, and reliable energy, while optimizing the use of BLM managed lands for the benefit of the United States. The need for the Proposed Action arises from regional increases in electricity demand, aging energy infrastructure, decarbonization policy goals, and the requirement for firm, dispatchable energy resources to complement intermittent renewable sources.

The need for greater amounts of carbon-free, firm, dispatchable electrical power continues to grow. In the western United States (especially in the states of Arizona, Nevada, and California), Artificial Intelligence (AI) research and development operations require this type of electricity in ever-growing amounts. Suppose these operations are denied this type of electricity. In that case, they will likely move to develop their own nuclear power plants in locations where doing so will spark public outrage and resistance. The location alone for Sawtooth Energy & Development Corporation's proposed Midpoint Small Modular Reactor Project #1 makes it a perfect location for development of intense nuclear power generation (situated in a sparsely inhabited desert area 14 ½ miles northeast of Jerome, Jerome County, Idaho and located next to the Midpoint Electrical Substation owned by Idaho Power Company and already in the business of transferring and distributing large quantities of electrical power throughout the western United States.

This Draft Environmental Impact Statement evaluates the potential environmental impacts associated with the construction and operation of Midpoint SMR Project #1, analyzes a No Action Alternative, and identifies mitigation measures to avoid or minimize potential impacts. Based on the analysis presented, no significant adverse

environmental impacts are anticipated with the implementation of the proposed mitigation measures.

## **II) Executive Summary**

Sawtooth Energy & Development Corporation (Sawtooth Energy) proposes to construct and operate the Midpoint Small Modular Reactor (SMR) Project #1 in Jerome County, Idaho. The project would be located on approximately 320 acres of BLM-administered land, surrounded by some agricultural land but mostly by BLM desert lands, which are utilized almost exclusively for the seasonal grazing of livestock. This selected area has little or no water available unless a sponsoring operation drills a water well. Even if a well is drilled in this area, the State of Idaho will limit the amount of well water taken from a newly drilled well due to fears that the subterranean aquifer will draw down too far to accommodate all users of the aquifer. That is the reason Sawtooth Energy & Development Corporation has chosen to utilize reactors for its project that use little or no water as a coolant. There are several companies that build SMR Power Units that use very little freshwater, making them ideal for this project in arid desert terrain.

The Proposed Action involves the deployment of two Small Modular Reactor Power Modules, each capable of producing approximately 300 MWe, for a total output of up to 600 MWe

The facility would directly interconnect with Idaho Power's Midpoint Substation, minimizing new infrastructure needs. The Midpoint SMR Project supports regional goals for clean energy development, grid reliability, and reduced greenhouse gas emissions, while generating long-term revenue for Idaho's public trust beneficiaries.

Environmental analysis (Lava Ridge Wind FEIS) determined that construction impacts would be localized, minor, and temporary. The operational impacts would be minimal and consistent with regional land-use goals. No significant adverse impacts are anticipated with the implementation of mitigation measures.

## **III) Purpose and Need:**

### **A) Introduction**

This chapter describes the purpose and need for the Proposed Action, which is the construction and operation of the Midpoint Small Modular Reactor (SMR) Project #1.

This section serves as the foundation for the alternatives analysis and overall environmental review consistent with the National Environmental Policy Act (NEPA) and implementing regulations (40 CFR 1502.13).

## B) Purpose of the Proposed Action

The purpose of the Midpoint SMR Project #1 is to:

Develop new, firm, dispatchable, carbon-free baseload electricity generation capacity to support Idaho's long-term energy needs.

Provide two SMR Power Modules, each capable of producing approximately 300 megawatts each of electricity (MWe), for a total output of up to 600 MWe.

Connect directly to Idaho Power's existing Midpoint Substation to minimize new infrastructure development.

Optimize the use of BLM grazing property to generate revenue for the BLM and the United States of America.

Support Idaho's and the nation's goals for greenhouse gas reduction and clean energy transition.

The Midpoint SMR Project #1 would establish a critical new source of clean baseload energy while maintaining Idaho's leadership in energy innovation and responsible land management.

## C) Need for the Proposed Action

The need for the Midpoint SMR Project arises from several regional and national trends:

### Increasing Electricity Demand:

The growing population, economic development, and electrification of industries are driving a rise in electricity consumption in Idaho and the western United States.

Sometime in late 2026 or early 2027, Great Basin Transmission, LLC will start construction on a 285-mile stretch of electric transmission line to be known as the Southwest Intertie Project-North line. This 500-kilovolt (kV) electric transmission line will connect the Midpoint Substation operated by Idaho Power Company, located in Jerome County (approximately seven miles south of Shoshone, Idaho, on U.S. 93), with the Robinson Summit Substation located near Ely, Nevada. All private and public permits for the construction of this line have been approved, and the start of construction has already been announced by Great Basin Transmission, LLC.

This electrical transmission line was originally designed and developed to transfer electrical power from the Lava Ridge Wind project (approximately 1GWe of power), which was canceled by the U.S. Government earlier this year. Currently, there is no known replacement for the power originally planned to be shipped by the Southwest

Intertie Project-North south to Ely, Nevada and then on to southern California. Consequently, a transmission line is currently planned to be built that will be underutilized for several years if the Midpoint Small Modular Reactor Project #1 is not approved and placed into operation.

**Grid Reliability and Baseload Capacity:**

As intermittent renewable sources (wind, solar) increase, there is a heightened need for firm, dispatchable baseload generation to ensure grid stability.

**Carbon Emissions Reduction Goals:**

Idaho and federal initiatives seek significant reductions in greenhouse gas emissions. SMRs offer carbon-free power that supports these goals.

**Aging Infrastructure:**

Traditional baseload facilities (coal, older gas plants, and even hydroelectric facilities) are retiring, creating an urgent need for modern, clean, reliable replacements.

**Strategic Infrastructure and Land Opportunities:**

The proximity of available BLM ground to the Midpoint Substation creates a rare opportunity to deploy advanced energy technology with minimal new land or transmission disturbance.

**D) Decision to Be Made**

The decision to be made based on this DEIS is whether to approve the Midpoint SMR Project under applicable environmental regulations, including NEPA, Idaho Department of Environmental Quality (IDEQ) permitting processes, and U.S. Nuclear Regulatory Commission (NRC) licensing requirements.

This DEIS evaluates whether the Proposed Action, with associated mitigation measures, meets regulatory standards and minimizes environmental harm.

## **IV) Alternatives**

**A) Introduction**

The National Environmental Policy Act (NEPA) requires that an Environmental Impact Statement (EIS) evaluate a reasonable range of alternatives to the proposed action.

The purpose of the alternatives analysis is to explore options that could accomplish the basic objectives of the proposed action while avoiding or minimizing adverse environmental impacts.

For the Midpoint Small Modular Reactor (SMR) Project #1, the alternatives considered were developed based on the Project Purpose and Need, which is to develop clean, reliable, baseload electrical generation capacity near existing high-voltage transmission infrastructure in southern Idaho to support regional energy demands and diversify Idaho's energy portfolio.

This chapter evaluates:

The No Action Alternative, as required by NEPA.

The Proposed Action (Midpoint SMR Project #1); and

Other alternatives were considered but eliminated from detailed analysis.

#### B) No Action Alternative

Under the No Action Alternative, the Midpoint SMR Project would not be constructed or operated.

The 320-acre parcel of BLM administered land would remain undeveloped, and no new energy generation capacity would be added at the site. The land would continue to be managed by the BLM, with potential continued grazing leases or other future uses considered.

- 1) Under the No Action Alternative:
- 2) No construction-related impacts to soils, vegetation, wildlife, water resources, or cultural resources would occur.
- 3) No new traffic, noise, or hazardous materials handling would result from project activities.
- 4) There would be no local economic stimulus from construction or operations jobs.
- 5) Regional electricity demand would continue to grow, with additional needs likely met by increased reliance on existing fossil-fuel generation or other infrastructure upgrades elsewhere.
- 6) Opportunities to add firm, dispatchable, carbon-free electrical generation capacity near the existing infrastructure would be missed.
- 7) The soon-to-be-built Southwest Intertie Project-North high voltage line would be built with no additional electrical power being generated and shipped via the transmission line. The approved transmission line would be developed and remain vastly underutilized for years to come.

While the No Action Alternative would avoid direct environmental impacts at the project site, it would also fail to achieve the objectives of improving grid

reliability and advancing clean energy development, which are consistent with Idaho's energy goals.

#### C) Proposed Action (Midpoint SMR Project #1)

The Proposed Action involves the construction and operation of a single Small Modular Reactor (up to two SMR reactors installed in tandem) energy generation facility on a 320-acre portion of BLM administered land within Section 17, (N1/2) Township 07 South, Range 18 East, Jerome County, Idaho.

Key elements of the Proposed Action include:

- 1) Construction of the SMR reactor building, cooling systems, control building, security fencing, internal access roads, and support structures.
- 2) Installation of ancillary systems for domestic water supply (onsite well), wastewater management (onsite septic), fire protection, and backup power systems.
- 3) Direct electrical interconnection to Idaho Power's existing Midpoint Substation, located approximately 2 3/4 miles west of the project site, minimizing new transmission line construction.
- 4) Development of the site under a 20-year lease agreement (with extended leasing privileges) with the BLM, Department of the Interior of the United States of America.
- 5) Implementation of robust environmental protection measures, including erosion control, spill prevention, noise and dust minimization, and habitat restoration.
- 6) Compliance with all applicable regulatory requirements, including Idaho Department of Environmental Quality (IDEQ) permits and U.S. Nuclear Regulatory Commission (NRC) licensing standards.

The Midpoint SMR Project #1 would provide up to approximately 600 megawatts of clean, firm baseload power to Idaho's electrical grid, supporting regional energy reliability and decarbonization efforts.

#### D) Alternatives Considered but Eliminated from Detailed Study

During project planning, several alternatives were considered but were eliminated from detailed evaluation for the reasons described below:

##### 1) Alternative Locations

Other locations for SMR deployment in southern Idaho were considered; however, alternative sites lacked the key characteristics required for efficient project development, including:

Immediate proximity to a major high-voltage transmission substation (Midpoint Substation provides ideal interconnection capability).

Appropriate land availability under a long-term lease with BLM.

Isolation from sensitive environmental receptors (e.g., wetlands, critical habitat, residential communities).

As a result, the Midpoint site was determined to be the only reasonable location that fully meets project needs while minimizing environmental and social impacts.

## 2) Alternative Technologies

Alternative energy generation technologies — such as wind, solar, and natural gas — were considered but eliminated for this project because:

- i) Wind and Solar:  
While valuable for Idaho's energy mix, they are intermittent and would not provide the firm, dispatchable baseload energy capacity needed for grid stability.
- ii) Natural Gas:  
Although reliable, natural gas generation emits greenhouse gases and does not support Idaho's long-term carbon reduction goals.  
  
SMR technology uniquely meets the project's objectives by providing carbon-free, firm, and scalable energy production.

## 3) Scaled-Down Project Alternative

Consideration was given to developing a smaller SMR facility; however, a reduced-scale project would not achieve the desired economies of scale, grid integration benefits, or economic feasibility necessary to justify investment. Thus, a smaller facility was eliminated from further analysis.

# V) Affected Environment and Environmental Consequences

## A) Regulatory Framework

Cultural resources are protected under several federal laws and regulations, including:

- 1) National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. 470 et seq.), particularly Section 106, which requires federal agencies to consider the effects of their undertakings on historic properties.
- 2) Archaeological Resources Protection Act (ARPA) of 1979.
- 3) Native American Graves Protection and Repatriation Act (NAGPRA) of 1990.



4) National Environmental Policy Act (NEPA) of 1969.

Consultation with the Idaho State Historic Preservation Office (SHPO) and interested Tribes is required if a federal nexus is involved (e.g., federal funding, licensing, or land use).

The cultural resources protected under several federal laws and regulations have been carefully reviewed and considered in a Final Environmental Impact Statement prepared, submitted, and approved by the Bureau of Management. In their 2024 review of the Final Environmental Impact Statement for the Lava Ridge Wind Project, U.S. Department of the Interior, Twin Falls District Office, Idaho, it was determined that there would be limited, if any, impact on areas of concern as to any of these Federal laws and regulations. The Lava Ridge Wind Project was located approximately seven (7) miles east of the proposed location of the Midpoint Small Modular Reactor Project #1 prior to its cancellation by the United States Government. The terrain and landscape are identical in nature to that found in the Midpoint Small Modular Reactor Project #1 area. However, the Lava Ridge Wind Project encompassed a physical layout of over 62,000 acres of land and 241 large windmill structures. In contrast, the Midpoint Small Modular Reactor Project #1 is to be constructed on 320-acres of land with substantially less site preparation, less habitat disturbance, and less destruction of any protected features.

A final review of the area is anticipated to be conducted by Sawtooth Energy & Development Corporation of the Midpoint (SMR) Project #1 site prior to the commencement of the construction process to ensure that no destruction of regulated areas occurs.

B) Regional Setting

The Midpoint SMR Project #1 site is situated on BLM-administered land in Jerome County, Idaho, an area historically used by Native American groups, including the Shoshone-Bannock and Shoshone-Paiute peoples.

Historically, the northern Snake River Plain has been a corridor for seasonal travel, hunting, and gathering, but archaeological site density is low in the more arid, less habitable parts of the plain, particularly in undisturbed desert environments.

Existing cultural resource information from regional surveys — including the Lava Ridge Wind Project Final Environmental Impact Statement (BLM 2024, Section 3.17) indicates that:

- 1) Archaeological site density in similar terrain is low to very low.

- 2) Cultural features, if present, are often isolated lithic scatters, historic trails, or small campsites.
- 3) Much of the area near Midpoint Substation has already been disturbed by infrastructure development.

#### C) Cultural Resources within the Project Area

A review of existing records and preliminary site reconnaissance found:

- 1) No previously recorded archaeological sites, historic properties, or traditional cultural properties (TCPs) within the 320-acre Midpoint SMR Project #1 site.
- 2) No known historic trails (e.g., Goodale's Cutoff or Oregon Trail variants) cross the site.
- 3) No known Native American sacred sites or sensitive cultural landscapes are documented within or adjacent to the Project Area.

Given the historical land use and proximity to existing energy infrastructure, the site is considered to have a low probability of containing undiscovered cultural resources.

A full Class I (records review) cultural resources survey will be completed before ground-disturbing activities. If necessary, a Class III (field survey) will be conducted in accordance with guidance from the SHPO and the federal government.

#### D) Potential Project Impacts

Potential impacts to cultural resources could include:

- 1) Ground disturbance during construction leading to unintentional discovery or damage to buried archaeological materials or historic features.
- 2) Minimal potential for impacts to traditional cultural properties, given the absence of known TCPs in the project area.

Given the lack of recorded cultural sites and the disturbed nature of the project area, the risk of adverse effects is considered very low.

#### E) Mitigation Measures

The following measures would be implemented to protect cultural resources:

- 1) Pre-Construction Surveys:  
Conduct Class III pedestrian surveys, if recommended by SHPO, to verify the absence of cultural resources within the final project footprint.

- 2) Inadvertent Discovery Procedures:  
Develop and implement an Inadvertent Discovery Plan (IDP) requiring immediate work stoppage and notification of appropriate authorities if cultural materials or human remains are encountered during construction.
- 3) Tribal Coordination:  
Consult with Tribes, if required, to address any concerns regarding potential effects on cultural or traditional resources.

These measures align with best practices described for regional energy projects, as outlined in the Lava Ridge Wind Project FEIS (BLM, 2023, Section 4.17).

#### F) Residual Effects

With the implementation of mitigation measures, residual impacts on cultural resources would be negligible. If any previously unknown resources are discovered, appropriate avoidance, protection, or recovery measures would be taken in consultation with SHPO and affected Tribes.

## VI) Cumulative Effects

#### A) Regulatory Framework

The National Environmental Policy Act (NEPA) requires that an Environmental Impact Statement (EIS) evaluates the potential for cumulative effects.

Cumulative effects are defined as the impact on the environment resulting from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of who undertakes them (40 CFR 1508.1(g)(3)).

This section assesses the cumulative impacts associated with the Midpoint SMR Project #1, considering other relevant activities in the region.

Reference: Bureau of Land Management (BLM). 2023. Final Environmental Impact Statement for the Lava Ridge Wind Project. Final Record of Decision was in September 2024, U.S. Department of the Interior, Twin Falls District Office, Idaho.

- 1) During the Application and Draft Environmental Impact Statement process, the Lava Ridge Wind Project was to encompass the construction of 400 windmills on three (3) very large cattle grazing lease allotments (the North Milner Allotment, the Star Lake Allotment, and the Sidd Allotment, composed of 186,000 acres). The Midpoint Small Modular Reactor Project #1 is proposed on a 40-acre parcel of land in the North Milner Allotment. In the

Lava Ridge Wind Project Final EIS, the project was ultimately approved for portions of both the Star Lake Allotment and the North Milner Allotment, but all three allotments were originally considered and studied as possible locations for the project in the FEIS for Lava Ridge.

- 2) The Midpoint SMR Project #1 proposed location is approximately seven (7) miles east of the proposed Lava Ridge Wind Project location. The terrain and landscape of the Lava Ridge Project and the Midpoint SMR Project #1 are identical in nature (dry desert grazing leased ground). However, in the FEIS, the Lava Ridge Wind Project encompasses a physical layout in excess of 62,000 acres of land and 241 large windmill structures, whereas the Midpoint Small Modular Reactor Project #1 is to be constructed on less than 40 acres of land with substantially less site preparation and habitat disturbance and/or destruction.
- 3) Said Lava Ridge Wind Project FEIS includes substantial notes, topics, books, studies, reports, and conclusions justifying the positions taken in said FEIS. All of this information found in the Lava Ridge Wind Project is cogent, relevant, and has been utilized in the writing of this DEIS and will be utilized in the future development of any FEIS for the Midpoint SMR Project #1.

The 2024 Final Environmental Impact Statement for the Lava Ridge Wind Project carefully analyzed, and reports estimated the extent of habitat loss and economic impacts on land very similar to the property where the Midpoint (SMR) Project #1 is located. Please review, as it clearly reflects what the situation is on the Midpoint SMR Project #1 proposed site.

It is important to note, however, that in the region where the proposed Midpoint (SMR) Project #1 is to be located that there exists literally hundreds and probably thousands of acres of dry desert land with the only improvements ever having been made to the property being mile after mile of good to broken down fences that are used to segregate different pastures from other areas for the raising of livestock. Even most watering sites where grazing animals can access water are temporary vessels that can be relocated to where the cattle are grazing and filled by water tanker trucks brought in by the ranchers.

In other words, in the area where the Midpoint (SMR) Project #1 is to be located, it is not difficult to ascertain the incremental impact of past activities, as the environment has never been seriously impacted before. Hence, there is little need to consider the incremental impact of the proposed action (building the Midpoint SMR Project #1 nuclear power plant), as there have never been, and probably never will be, past, present, or reasonably foreseeable future actions, regardless of who undertakes them in this desert region.

## B) Geographic and Temporal Scope of Analysis

The geographic scope for cumulative impacts analysis focuses primarily on Jerome County, Idaho, and adjacent areas of the northern Snake River Plain.

The temporal scope includes:

- 1) Past actions (primarily since agricultural development in the early 1900s),
- 2) Ongoing present actions,
- 3) Reasonably foreseeable future actions over the next 20–30 years.

This scope encompasses those actions most likely to interact with the Midpoint SMR Project's impacts.

## C) Past and Present Actions

Past and present actions within the region that have affected the environment include:

- 1) Agricultural Development:  
Extensive conversion of native desert shrublands into irrigated farmland.
- 2) Energy Infrastructure Development:  
Construction of the Midpoint Substation and associated numerous high-voltage transmission lines, including the yet to be built Southwest Intertie Project-North, set to be completed by 2029.
- 3) Transportation Infrastructure Expansion:  
Development of U.S. Highway 93 and supporting county road networks.

These activities have resulted in the fragmentation of natural habitats, modification of land surfaces, groundwater extraction, and increases in utility and transportation infrastructure.

## D) Reasonably Foreseeable Future Actions

Reasonably foreseeable actions in the project vicinity include:

- 1) Renewable Energy Development:  
Potential development of solar energy facilities on State Endowment Lands and adjacent BLM-managed areas.
- 2) Transmission System Upgrades:  
Future expansion and upgrades to the Midpoint Substation to accommodate growing regional energy needs.
- 3) Continued Agricultural Activity:  
Ongoing agricultural production and potential intensification of groundwater use for irrigation.

4) Regional Growth:

Gradual population increases in southern Idaho are leading to increased demand for electricity and supporting infrastructure.

These anticipated activities align with current land use trends and regional planning objectives.

E) Cumulative Impact Analysis

The following is a summary of potential cumulative impacts when the Midpoint SMR Project #1 is considered alongside other actions:

1) Wildlife and Habitat:

The Project would result in the permanent loss of approximately 40 acres of desert shrubland habitat. However, given the extensive surrounding undeveloped BLM lands, the cumulative loss of habitat is minor and is not expected to significantly affect regional wildlife populations.

2) Groundwater Resources

The Project's groundwater needs are limited compared to agricultural irrigation demands. Cumulative groundwater impacts are expected to be negligible.

3) Visual Resources

The Midpoint SMR facility would add a new industrial structure to the landscape. However, the presence of the existing Midpoint Substation and transmission lines means that the incremental visual impact would be minor and localized.

4) Transportation

Temporary construction-related traffic would add slightly to existing traffic volumes, primarily along U.S. Highway 93 and local access roads. Cumulative transportation impacts would be minimal and short-term.

5) Socioeconomics

Cumulative socioeconomic effects would be beneficial, including short-term construction employment, long-term operational jobs, and increased lease revenue for BLM and the country.

6) Cultural Resources, Recreation, Environmental Justice

No cumulative impacts are anticipated in these areas. The project location is remote with low potential for cultural resources or recreational use, and there is no disproportionately affected minority or low-income population nearby.

F) Summary of Environmental Impacts and Mitigation Measures

Reference: Bureau of Land Management (BLM). 2024. Final Environmental Impact Statement for the Lava Ridge Wind Project. Final Record of Decision was in September 2024, U.S. Department of the Interior, Twin Falls District Office, Idaho.

- 1) During the Application and Draft Environmental Impact Statement process, the Lava Ridge Wind Project was to encompass the construction of 400 windmills on three (3) very large cattle grazing lease allotments (the North Milner Allotment, the Star Lake Allotment, and the Sidd Allotment, composed of 186,000 acres). The Midpoint Small Modular Reactor Project #1 is proposed on a 40-acre parcel of land in the North Milner Allotment. In the Lava Ridge Wind Project Final EIS, the project was ultimately approved for portions of both the Star Lake Allotment and the North Milner Allotment, but all three allotments were originally considered and studied as possible locations for the project in the FEIS for Lava Ridge.
- 2) The Midpoint SMR Project #1 proposed location is approximately seven (7) miles east of the proposed Lava Ridge Wind Project location. The terrain and landscape of the Lava Ridge Project and the Midpoint SMR Project #1 are identical in nature (dry desert grazing leased ground). However, in the FEIS, the Lava Ridge Wind Project encompasses a physical layout in excess of 62,000 acres of land and 241 VERY large windmill structures, whereas the Midpoint Small Modular Reactor Project #1 is to be constructed on less than 40 acres of land with substantially less site preparation and habitat disturbance and/or destruction.
- 3) Said Lava Ridge Wind Project FEIS includes substantial notes, topics, books, studies, reports, and conclusions justifying the positions taken in said FEIS. All of this information found in the Lava Ridge Wind Project is cogent, relevant, and has been utilized in the writing of this DEIS and will be utilized in the future development of any FEIS for the Midpoint SMR Project #1.

## **VII) Summary of Environmental Impacts and Mitigation Measures**

### **A) Introduction**

This section summarizes the anticipated environmental impacts associated with the construction and operation of Midpoint SMR Project #1 and identifies proposed mitigation measures to avoid or minimize potential adverse effects. Residual impacts are also summarized following the implementation of mitigation measures. This summary aims to provide a concise overview of the detailed analyses presented in Chapters 4 (Affected Environment and Environmental Consequences) and 5 (Cumulative Effects).

## B) Summary Table of Environmental Impacts and Mitigation

Reference: Bureau of Land Management (BLM). 2023. Final Environmental Impact Statement for the Lava Ridge Wind Project. The Final Record of Decision was in September 2024, U.S. Department of the Interior, Twin Falls District Office, Idaho.

- 1) During the Application and Draft Environmental Impact Statement process, the Lava Ridge Wind Project was to encompass the construction of 400 windmills on three (3) very large cattle grazing lease allotments (the North Milner Allotment, the Star Lake Allotment, and the Sidd Allotment, composed of 186,000 acres). The Midpoint Small Modular Reactor Project #1 is proposed on a 40-acre parcel of land in the North Milner Allotment. In the Lava Ridge Wind Project Final EIS, the project was ultimately approved for portions of both the Star Lake Allotment and the North Milner Allotment, but all three allotments were originally considered and studied as possible locations for the project in the FEIS for Lava Ridge.
- 2) The Midpoint SMR Project #1 proposed location is approximately seven (7) miles east of the proposed Lava Ridge Wind Project location. The terrain and landscape of the Lava Ridge Project and the Midpoint SMR Project #1 are identical in nature (dry desert grazing leased ground). However, in the FEIS, the Lava Ridge Wind Project encompasses a physical layout in excess of 62,000 acres of land and 241 VERY large windmill structures, whereas the Midpoint Small Modular Reactor Project #1 is to be constructed on less than 40 acres of land with substantially less site preparation and habitat disturbance and/or destruction.
- 3) Said Lava Ridge Wind Project FEIS includes substantial notes, topics, books, studies, reports, and conclusions justifying the positions taken in said FEIS. All of this information found in the Lava Ridge Wind Project is cogent, relevant, and has been utilized in the writing of this DEIS and will be utilized in the future development of any FEIS for the Midpoint SMR Project #1.
- 4) Summary Table of Environmental Impacts and Mitigation – Midpoint SMR Project #1

This table provides a concise summary of the potential environmental impacts associated with the Midpoint SMR Project #1, along with the corresponding mitigation measures and anticipated residual impacts following implementation.

Resource Area	Potential Impact	Mitigation Measures	Residual Impact
Air Quality & Dust Control	Dust emissions from construction	Apply water to unpaved areas, use	Temporary and localized reduction



	activities and the operation of equipment.	wind rose data for planning, and suspend work during high winds (greater than 25 mph).	in air quality during construction.
Soils & Geology / Seismic	Soil erosion and instability, as well as potential seismic risk.	Conduct borings, use USGS seismic data, design to IBC Category D, and monitor vibration during blasting.	Minimal with proper geotechnical design and seismic mitigation.
Water Resources – Wastewater Management	Potential contamination from process or sanitary wastewater.	Use lined containment basins, treat all wastewater, and comply with the NPDES permit.	Negligible with containment, monitoring, and permitted discharge.
Water Resources – Construction Management	Sediment runoff and groundwater depletion.	Implement erosion control, monitor water use, and stabilize entry points.	Minor and temporary if best practices are implemented.
Nuclear Fuel Management	Radiological risk from fuel transport, storage, and handling.	Secure NRC-regulated transport, vault storage, and fuel tracking system.	Negligible with federal oversight and hardened containment.
Vegetation and Wetlands	Loss of native vegetation, wetland encroachment.	Buffer sensitive areas, revegetate using native species.	Temporary disturbance with long-term restoration.
Wildlife and Habitat	Displacement of wildlife, nesting disruption.	Seasonal restrictions, biological surveys, and exclusion fencing.	Minimal if seasonal windows and exclusion zones are observed.
Cultural Resources	Damage to known or unknown cultural sites.	Conduct a Class III survey, consult the Tribes, and stop	No impact with adherence to

		work if resources are found.	cultural protection protocols.
Land Use and Recreation	Conflict with existing grazing or recreation access.	Coordinate with users and install temporary fencing.	Minimal disruption, access maintained or rerouted.
Public and Occupational Health and Safety	Risk of injury, radiation exposure, or onsite accidents.	OSHA compliance, NRC safety protocols, PPE, and training.	Negligible with full regulatory and safety compliance.
Waste Management	Improper waste handling or storage.	Waste Management Plan, proper disposal per regulations.	No significant impact on plan adherence.
Transportation and Access	Traffic congestion, road degradation, and transport risks.	Coordinate with DOT, flaggers, timing limits, and signage.	Minor and temporary if logistics plans are followed.
Noise and Aesthetics	High construction noise and visual contrast.	Limit noise to daylight hours, aesthetic screening.	Moderate and temporary visual and auditory impacts.
Emergency Preparedness and Response	Delayed or ineffective emergency response.	Emergency Response Plan, coordination with agencies, and annual drills.	Negligible with proactive planning and interagency drills.
Monitoring and Adaptive Management	Failure to detect environmental degradation.	Quarterly monitoring air, water, wildlife, and noise with adaptive response.	Minimal with real-time adjustments and trend tracking.
Socioeconomics and Environmental Justice	Disproportionate impacts on underserved communities.	Community outreach, jobs program, fair benefit distribution.	Positive economic impact with minimal environmental justice risk.

Tribal and Government-to-Government Consultation	Loss of access or cultural disrespect toward Tribal interests.	Ongoing consultation, cultural access provisions, and Section 106 coordination.	None with proactive consultation and respectful engagement.
Threatened and Endangered Species	Potential disturbance to federally or state-listed species.	Pre-construction biological surveys, timing restrictions, and habitat avoidance.	Minimal with compliance and biological monitoring.
Aquatic Resources	Alteration of ephemeral drainages or water quality degradation.	Design stormwater systems to prevent runoff into aquatic habitats and establish protective buffers.	Negligible with engineered runoff controls and setbacks.
Groundwater Resources	Potential overdrafts or contamination of local aquifers.	Monitor withdrawal rates, lined wastewater basins, and prohibit deep well injection.	Minor with active monitoring and containment strategies.
Air Quality and Climate	Greenhouse gas emissions and particulate matter from construction.	Use Tier 4 equipment, limit idling, monitor emissions; SMR has near-zero operational emissions.	Minor and temporary construction impacts; negligible in operation.
Noise and Vibration	Disturbance from construction machinery and equipment transport.	Restrict high-noise activities to daylight hours, use low-impact machinery, and vibration monitoring.	Temporary and minor acoustic disturbance during site work.
Land Use and Zoning	Conflict with designated land use or zoning ordinances.	Confirm compatibility with county zoning;	None with appropriate permitting and

		obtain conditional use approvals.	agency coordination.
Visual Resources and Aesthetics	Change in scenic views from surrounding roadways or residences.	Design structures with visual screening and use neutral earth-tone colors.	Moderate long-term visibility impact, softened with screening.
Transportation and Access	Increased traffic, road wear, and congestion during delivery phases.	Time deliveries to off-peak hours, coordinate with local DOTs, maintain haul roads.	Temporary traffic impacts, minimal with proper controls.
Public Services and Utilities	Increased demand for water, power, emergency response, and waste systems.	Coordinate with local providers, develop site utilities plans, support local services.	Minor service load increase, mitigated by advance planning.
Recreation	Restricted access to nearby BLM or endowment land used for recreation.	Provide alternative routes or temporary access where feasible; communicate closures.	Temporary recreational disruption during construction only.
Cumulative Effects	Combined effect of the SMR project with regional energy and infrastructure developments.	Incorporate cumulative impact analysis; stagger construction to minimize overlap.	Limited additive impact with proactive coordination and monitoring.

## VIII) Consultation and Coordination

### A) Introduction

This chapter summarizes the consultation and coordination activities conducted during the preparation of the Midpoint Small Modular Reactor (SMR) Project #1 Draft Environmental Impact Statement (DEIS). Consultation and early coordination with relevant agencies, Tribes, stakeholders, and the public are required under the National Environmental Policy Act (NEPA) and associated federal and state environmental review regulations.

## B) Agencies and Organizations Consulted

The following agencies and organizations were contacted or engaged as part of the DEIS process:

- 1) Idaho Department of Environmental Quality (IDEQ)  
(Environmental permitting coordination and review under state regulations.)
- 2) U.S. Bureau of Land Management (BLM), Twin Falls District Office  
(Consultation regarding adjacent federally managed lands and cumulative effects considerations.)
- 3) U.S. Fish and Wildlife Service (USFWS)  
(Consultation regarding federally listed threatened and endangered species through the IPaC system and field coordination.)
- 4) Idaho State Historic Preservation Office (SHPO)  
(Cultural resources records review and pre-construction survey coordination under Section 106 of the National Historic Preservation Act.)
- 5) U.S. Nuclear Regulatory Commission (NRC)  
(Lead agency anticipated for SMR licensing; early project scoping and licensing framework discussions.)

## C) Tribal Consultation

According to NEPA and the National Historic Preservation Act (NHPA), outreach and consultation were initiated with Tribes traditionally associated with the project area, including but not limited to:

- 1) Shoshone-Bannock Tribes of the Fort Hall Reservation
- 2) Shoshone-Paiute Tribes of the Duck Valley Reservation

Tribal consultation letters were sent on June 24, 2025, inviting government-to-government discussions regarding potential impacts on cultural resources, traditional cultural properties, or other Tribal interests. Consultation will continue throughout the environmental review and project development process as needed.

One letter was sent to Chairman Lee Juan Tendoy of the Shoshone-Bannock Tribes of the Fort Hall Reservation. Upon multiple telephone calls to Mr. Tendoy's office at the Fort Hall Indian Reservation (five total telephone calls), the Chairman either failed or refused to take our telephone calls. No further attempts have been made to involve Mr. Tendoy in the discussions regarding potential impacts on cultural resources, traditional cultural property, or other Tribal interests on the property where the proposed nuclear reactor project is located.

Another letter was sent to Chairman Brian Mason of the Shoshone-Paiute Tribes. Chairman Mason responded to our letter and phone calls in an effort to cooperate in analyzing potential impacts on cultural resources, traditional cultural properties, or other Tribal interests at the property where the proposed nuclear project is located. Early on, Chairman Mason introduced SEDC to Jade Roubideau. Miss Roubideau was tasked by Chairman Mason to visit the proposed nuclear reactor site and make recommendations based on her findings to the Shoshone-Paiute Tribe. On August 27, 2025, Miss Roubideau met with B. Roy Prescott, President and CEO of Sawtooth Energy & Development Corporation (SEDC), to inspect the project site and identify anything of interest to the Tribe.

The inspection primarily took place at the NW ¼ of the NW ¼ of Section 17, Township 7 South, Range 18 East, in Jerome County, Idaho, where the main footprint of the nuclear reactor will be situated. To aid in the inspection, a topographical map, with clearly identified location and landmark points, was provided to indicate that the inspection was taking place at the correct point where the reactor site was to be located.

At that location, the proposed site of the project was relatively flat with a slow slope to the south. There was little or no protruding sagebrush or other large plants, and very little rock or other debris that hampered her ability to fully inspect the land. Miss Roubideau indicated that although she would make a formal presentation to her tribe upon completion of her inspection, there would be no written report submitted to Sawtooth Energy & Development Corporation. She indicated that her verbal report to Sawtooth would be sufficient to allow the corporation to either proceed with the project or await further instruction from the tribe.

Upon completion of the inspection, her verbal report indicated that she found no cultural resources, traditional cultural properties, or other Tribal interests at the proposed nuclear reactor site. Miss Roubideau was reminded of SEDC's established policy and procedure, which requires SEDC to report any findings of interest to the Tribe as construction progresses. Upon departing from the inspection, she was provided with a copy of said SEDC policy and procedure.

Copies of the letters sent to both the Shoshone-Bannock and Shoshone-Paiute Tribes as described above are attached to this DEIS as Exhibits A and B.

#### D) Public Involvement

Prior to starting the Public Involvement activities for the Midpoint SMR Project #1, Sawtooth Energy & Development Corporation (hereinafter SEDC) contacted four major news and media outlets, and arrangements were made to have them air or

publish information regarding four (4) Public Hearings SEDC was planning on conducting at the end of July 2025. The four media outlets included KMVT, a regional television station located in Twin Falls, Idaho; the Magic Valley Times News, a regional newspaper located in Twin Falls, Idaho; KLIX Radio Station, located in Twin Falls County, Idaho; and KART Radio Station, Lee Family Broadcasting, a local radio source for Jerome County, Idaho. All four media outlets were given the same information regarding the four Public Hearings.

## PUBLIC HEARING NOTICE

Midpoint SMR Project #1 – Draft Environmental Impact Statement (DEIS)  
Sawtooth Energy & Development Corporation (SEDC)

YOU ARE INVITED to attend a series of public hearings to review and comment on the Draft Environmental Impact Statement (DEIS) for the proposed Midpoint Small Modular Reactor (SMR) Project #1, to be located N.E. of Jerome, Idaho. These hearings will provide information about the nuclear project, answer community questions, and accept public input on environmental impacts, site development, and permitting under federal and state regulations.

### Public Hearing Dates & Times

- July 21, 2025 – 7:00 p.m. – Jerome, ID at the Jerome County Courthouse, Jack Nelson Conference Room, the old District Court Room, Come in the back Door
- July 25, 2025 – 7:00 p.m. – Jerome, ID at the County Courthouse, Jack Nelson Conference Room, the old District Court Room. Come in the rear entrance.
- July 28, 2025 – 7:00 p.m. – Jerome, ID at Jerome County Courthouse, Jack Nelson Conference Room, the old District Court Room, Come in the back Door.
- July 30, 2025 – 7:00 p.m. – Shoshone, ID at the Shoshone Community Center, Lincoln County Fairgrounds.

Each hearing will last approximately one hour. Purpose of the Public Hearings

- Present DEIS findings
- Explain project scope and purpose
- Answer public questions
- Collect official public comments

A copy of the Draft Environmental Impact Statement is available online at:

[www.sedc.co](http://www.sedc.co)

For questions, please contact:

1-877-601-6100

Let your voice be heard. Your input matters.

#### ATTENDANCE AT THE FOUR (4) PUBLIC HEARINGS

Approximately 45 individuals attended the first public hearing in Jerome, Idaho. Approximately 10 individuals were clearly against the project moving forward.

Approximately 40 individuals attended the second public hearing in Jerome, Idaho. Approximately 10 individuals who had attended the previous public hearing were present at this one. The ten repeat attendees were clearly against the project moving forward.

Approximately 45 individuals attended the third public hearing in Jerome, Idaho. Approximately 10 individuals at this hearing had previously attended both the first and second hearings held by SEDC.

Approximately 40 individuals attended the fourth public hearing in Shoshone, Idaho. Of these 40 individuals, approximately eight people had also attended the previous three Public Hearings in Jerome, Idaho. Those who attended multiple meetings of the Public Hearings were clearly not in favor of the project moving forward.

Not all who attended the four (4) Public Hearings either took or turned in a copy of the Public Hearing Survey.

SEDC conducted all four hearings in the exact same manner and according to the following Public Hearing Outline:

## Talking Outline – Public Hearings for Midpoint SMR Project #1

Presented by Sawtooth Energy & Development Corporation (SEDC)

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*Duration: 1 hour (with built-in Q&A)*

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### 1. Welcome and Opening Remarks (5 minutes)

- - Thank everyone for attending
- - Purpose of the public hearing: to inform, listen, and engage
- - Introduce SEDC and its mission (Sawtooth Energy & Development Corporation)



- - Acknowledge local officials, NRC process, and BLM role
- - Mention hearing will include Q&A at the end

## 2. Project Overview (10 minutes)

- - The Midpoint SMR Project #1 will feature small modular reactors (SMRs)
- - Located 2.75 miles east of the Midpoint Power Substation on 320 acres of BLM land
- - Total generation: 600 MWe, enough to power over 400,000 homes
- - Why Jerome County: strong electrical infrastructure, low seismic risk, strong workforce
- - Idaho is an ideal host for nuclear innovation. INEL is a constant developer of solid, safe, and affordable nuclear energy.

## 3. Safety First (10 minutes)

- - SMRs are inherently safe – use passive safety systems
- - No fatalities from commercial reactor operations in the U.S. since 1961 (and none before)  
TOTAL DEATHS in the nuclear industry equal 3.
- - NuScale design has been fully certified by the U.S. Nuclear Regulatory Commission (NRC)
- - Backup systems, sealed containment, and on-site monitoring ensure public safety
- - Quote: “Nuclear energy, which provides 20% of our nation’s electricity, is one of the safest industries in the United States.” – B. Roy Prescott

## 4. Environmental and Regulatory Process (10 minutes)

- - Full Environmental Impact Statement (EIS) process being conducted
- - Public hearings are part of the NEPA review and BLM public involvement
- - NRC licensing will take up to 18 months under the current federal streamlined process
- - Environmental studies include: wildlife, groundwater, air quality, land use, and aesthetics
- - Land Ownership: siting on federal BLM grazing land – no displacement of homes or businesses

## 5. Economic & Community Benefits (10 minutes)

- - Hundreds of construction and permanent jobs in South-Central Idaho
- - New property tax and lease revenue to local governments and schools
- - Power contracts may support data centers, AI infrastructure, and local utilities
- - Long-term affordable energy rates – help keep Idaho’s power cheap and reliable
- - Commitment to hire Idaho workers and contract local suppliers
- - Potential for college partnerships, job training, and nuclear certification programs

## 6. Timeline and Next Steps (5 minutes)

- - Mid-2025: EIS hearings and community outreach
- - Late 2025–Early 2026: Licensing approvals by NRC and BLM

- - 2026–2028: Site preparation and phased construction
- - By 2029–2030: First SMR units could be generating power

## 7. How to Stay Involved (5 minutes)

- - Public can submit comments online, by mail, or via email
- - Encourage constructive feedback – this is your community’s project
- - Website: [www.sedc.co](http://www.sedc.co)
- - Email: [rprescott@sedc.co](mailto:rprescott@sedc.co)
- - Toll-free: 877-601-6100

## 8. Q&A and Closing (15 minutes)

- - Open floor to questions (moderated)
- - Address safety, environmental impact, job creation, long-term benefits
- - Thank the audience again for their time and input
- - Reiterate: “We’re here to build trust, not just a power plant.”

## Important Note on Public Comment Forms

Before you leave tonight, we strongly encourage you to complete and return the Public Comment Form you received when entering. Your feedback—whether in support, opposition, or simply curious—is vital to the public review process.

Both the Bureau of Land Management (BLM) and the U.S. Nuclear Regulatory Commission (NRC) will review all comments submitted by the public as part of their formal decision-making process. This is your opportunity to help shape the future of energy in Idaho. Your voice matters.

AT ALL FOUR PUBLIC HEARINGS CONDUCTED BY SEDC, FIVE (5) COMPLETE COPIES OF THE SEDC DRAFT ENVIRONMENTAL IMPACT STATEMENT WERE AVAILABLE FOR THOSE ATTENDING THE PUBLIC HEARING TO READ AND REVIEW.

The group was also told that they could go online at [www.sedc.co](http://www.sedc.co) and read the DEIS on our website.

All four Public Hearings lasted at least one and one-half hours, with lengthy questions and answers lasting an additional thirty minutes both inside and outside the hearing location.

SEDC attempted to give All Public Hearing participants a Midpoint SMR Project #1-Public Hearing Participant Form. Most took the Survey form, but others did

not take it or did not return the survey at the end of the Public Hearing. Please see the blank form below:

**Midpoint SMR Project #1 – Public Hearing Participant Form**

Sawtooth Energy & Development Corporation (SEDC)

Draft Environmental Impact Statement (DEIS) Public Comment Record

**1. CONTACT INFORMATION (Please print clearly)**

Full Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City, State, ZIP: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

**Public Hearing Feedback Survey**

Midpoint SMR Project #1 – Draft Environmental Impact Statement (DEIS)

Sawtooth Energy & Development Corporation (SEDC)

Please take a moment to answer the following questions. Your feedback is essential to the integrity of this process and will be included in the final project record.

**1. How did you learn about this Public Hearing?**

- ☐ Newspaper ad
- ☐ SEDC website
- ☐ Government agency notice
- ☐ Social media
- ☐ Word of mouth
- ☐ Other: \_\_\_\_\_

2. Were the hearing materials (presentations, handouts, exhibits) clear and understandable?

- ☐ Very clear
- ☐ Somewhat clear
- ☐ Confusing
- ☐ No opinion

3. Do you feel the topics presented were relevant and thorough?

- ☐ Yes
- ☐ Mostly
- ☐ Not really
- ☐ No opinion

4. Were your questions and concerns addressed adequately by the presenters?

- ☐ Yes
- ☐ Partially
- ☐ No
- ☐ I didn't ask any questions

**Public Hearing Feedback Survey (continued)**

5. Which topic(s) presented were most important to you? (Check all that apply)

- ☐ Water Resources
- ☐ Air Quality and Climate
- ☐ Threatened & Endangered Species
- ☐ Public Safety & Emergency Response
- ☐ Land Use and Zoning
- ☐ Visual Impacts
- ☐ Economic Benefits
- ☐ Cumulative Impacts
- ☐ Other: \_\_\_\_\_

6. Do you support the Midpoint SMR Project #1 as described in the DEIS?

- ☐ Yes, I support the project
- ☐ Yes, with reservations (please explain below)
- ☐ No, I do not support the project
- ☐ Undecided

Comments: \_\_\_\_\_

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7. Any additional thoughts or suggestions regarding this hearing or the project?

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Would you like to receive future updates from SEDC regarding this project?

- ☐ Yes, by email
- ☐ Yes, by mail
- ☐ No thank you

Email: \_\_\_\_\_

Signature (optional): \_\_\_\_\_

## Survey Count Page

How did you learn about this Public Hearing?

- 9. Newspaper ad
- 0. SEDC website
- 0. Government agency notice
- 16. Social media
- 18. Word of mouth
- 14. Other

Were the hearing materials (presentations, handouts, exhibits) clear and understandable?

- 6. Very clear
- 15. Somewhat clear
- 23. Confusing
- 4. No opinion

Do you feel the topics presented were relevant and thorough?

- 7. Yes
- 14. Mostly
- 28. Not really
- 2. No opinion

Were your questions and concerns addressed adequately by the presenters?

- 5. Yes
- 17. Partially
- 19. No
- 10. I didn't ask any questions

Which topic(s) presented were most important to you? (Check all that apply)

- 39. Water Resources
- 23. Air Quality and Climate
- 13. Threatened & Endangered Species
- 35. Public Safety & Emergency Response
- 17. Land Use and Zoning
- 6. Visual Impacts
- 20. Economic Benefits
- 19. Cumulative Impacts
- 9. Other:

Do you support the Midpoint SMR Project #1 as described in the DEIS?

- 6. Yes, I support the project
- 5. Yes, with reservations (please explain below)

32. No, I do not support the project
6. Undecided

## Any Additional Thoughts or Suggestions Regarding This Hearing or the Project?

Recorded Directly from the Survey Sheets. Exact Duplicates Not Listed

1. "Need more information."
2. "I want the majority of other benefits of nuclear to stay in Idaho, only surplus to other states."
3. "Nuclear is consistent with a smaller footprint."
4. "The new nuclear designs are safer."
5. "Give more technical information concerning various proposed reactor designs, especially safety designs."
6. "We need more information about the improvement and safety in small nuclear reactors."
7. "There is a need for educated employees with physics, mathematics, engineering, and the capacity for high stress."
8. "What are the cancer rates?"
9. "Too many hazards and long-term costs & dealing with expensive construction, maintenance, and dealing with removal of equipment when the facility needs to be updated."
10. "With seismic activity & heat increases, these cause problems. The amount of water needed for the cooling of the reactors."
11. "Problems with and concerns with mining thorium. These are still experimental, with not enough analysis to know how viable it is."
12. "Nuclear is the best, especially the brick-sized power sources."
13. "Accidents happen, & I don't want to increase the probability of being in the middle of this. I'll move."
14. "Absolutely no effective information presented that truly addressed public concerns."
15. "The presenters are in over their heads. Not enough info here."
16. "Presenters were not well organized and not knowledgeable."
17. "Water Quality concerns. Concerned about radioactive materials leaking into well water, as well as radiation concerns, and being a down-winder etc. in the area."
18. "Presenters are somewhat unprofessional. Need more expert personnel to present."

19. "Too short a time period to review the available Draft Environmental Impact Statement."
20. "If you rewrite the DEIS with more detail, that would help."
21. "Are you familiar with the Hanford Nuclear Site? How thousands developed various cancers, and many died."
22. "The organizers do not have adequate experience with nuclear projects. Plans for water, safety, storage, and impacts are vague."
23. "Draft EIS is poorly organized. Maps lacking in detail."
24. "I cannot support it until they have more information. Many unanswered questions or information they don't know, which is a problem."
25. "Before starting on something like this, have all your ducks in a row. Remember your 6-Ps: Prior Preparation Prevents Piss Poor Performance."
26. "Valley schools need the tax money."
27. "Best it be done."
28. "Does not benefit the people of the Magic Valley or Idaho."
29. "This is not good for Jerome, Idaho."
30. "Need more expertise involved. Inadequate waste management plan. I worry about the aquifer and radiation leaks as well as earthquake risk."
31. "The federal government is cutting funding and deregulating. Worry there will not be regulatory protection."
32. "Sale of power outside of Idaho is a problem with not enough detail."
33. "I am concerned about radioactive waste entering the aquifer and the fact that the costs of nuclear would get passed onto ratepayers."
34. "There wasn't much info on reactor choice, what to do with the waste, and it was not clear on costs."
35. "Draft EIS was not official, as one of the presenters wrote it. Also, no handouts or exhibits."
36. "The aquifer is a concern, and the waste is a concern, and there isn't an adequate solution, which is why nuclear is unacceptable as a means of energy production. Nuclear waste is dangerous for hundreds of years, so we should not be producing this kind of waste. This cannot be called clean energy. Nuclear requires uranium mining, which destroys land (often indigenous lands) and harms indigenous peoples. This is historically what has happened. It isn't ethically acceptable."
37. "There should be additional public hearings when you have specifics. This is owed to the public."
38. "Has concerns regarding the aquifer, nuclear safety, waste transport, and the storage of waste."



39. "Your draft EIS is not an official document from the agency that would approve this project. It is very vague as is and would not be allowed to be submitted."
40. "This form and this hearing would not be the only time the public can comment on this, as you stated. There will be numerous public comment periods in an actual DEIS process."
41. "No experience. We don't want to be a test site. Don't say people don't die from radiation. That is a lie."
42. "No one wants a nuclear reactor here."
43. "We need more public hearings because there is no governmental oversight."
44. "I am concerned about leaks to the aquifer, no waste solution, no prior experience, and no knowledge of how much water will be used."
45. "Our water is all we have."
46. "My concerns are the cost (most contracts have been cancelled because the price is too high. Further, water usage (100-500 gallons of water per KWH sounds like a lot of water is needed). Idaho is already a dry state."
47. "Idaho does not need to be a guinea pig."
48. "There is nowhere to put the waste. This stuff lasts for thousands of years. Nobody knows what to do with it. Sweden is spending \$10 billion dollars on a facility that will hopefully be able to store the waste safely."
49. "There are concerns about the construction of these SMR modules."
50. "Long-term waste storage has not been resolved (national issue). Temporary on-site storage of waste is vulnerable to spillage, leakage, and terror attacks."
51. "Sawtooth is not qualified to undertake and manage a project with enormous safety concerns."
52. "No to any nuclear or any more waste in Idaho."
53. "2020 Washington leaks expected to take till 2086 to clean up. INL seal leak. It may pose a smaller risk (or so some say), but when a leak or malfunction occurs, it's a big risk."
54. "What employees could actually be hired here? Would they need degrees?"
55. "We will need more information as this develops more."
56. "Keep trying."
57. "Danger of the aquifer being contaminated. The equipment has never been built and tested before. Need further study on these reactors."
58. "Needs better explanation of the SMR operation."
59. "Failed politicians and cattle ranchers should leave reactors to more educated people than themselves, like nuke engineers."
60. "The DEIS needs a (hard look) at alternatives included in any document used for seeking a permit for this project."

61. "This meeting was preliminary, yet a DEIS was available as a handout. There are huge gaps in the analysis presented, and there is no scientific rigor behind this project."
62. "Hard to have a conversation about this subject when no details have been presented that would be important for a first public meeting."
63. "Piggybacking off a BLM Wind DEIS for a nuclear reactor that's gas cooled on state land is egregious, and the presentation lacks in all aspects as noted above. What are DOE's procedures for siting and permitting SMR's on state land?"
64. "How does the Midpoint SMR #1's DEIS (document) address the former internment Japanese American Community. I suspect a nuclear facility may provoke some deep emotional reactions."
65. "This is a transfer of wealth."
66. "Please provide the exact location of this project. Is it on BLM or State of Idaho land?"
67. "Too vague with answers to concerns or the project at all. I want to see the environmental plan and details."
68. "It will blow the whole kit and kaboodle from here to kingdom come!"
69. "You need to do your research before you have an open forum for the public."

Public scoping process to solicit input on issues, concerns, and alternatives.

- 1) Availability of the Draft EIS for public review and comment, including public notice and public meetings (as applicable). Complied with.
- 2) Consideration of all substantive public comments received during the Draft EIS review period prior to preparation of the Final EIS. Complied with.

All substantive public comments received during the Draft EIS review period prior to preparation of the Final EIS will first be summarized and delineated by subject by Sawtooth, and the summaries, as well as the original public comment materials in raw form, will be attached as Exhibits to the Final Environmental Impact Statement. Complied with.

Public participation ensures transparency, identifies local concerns early, and strengthens the decision-making process. Complied with.

## **IX) Explanation and Compliance Actions**

### **A) CATEGORY 2 ISSUES-TWENTY QUESTIONS (20) THAT MUST BE ANSWERED AND BE SITE SPECIFIC.**

Must be addressed in every site-specific DEIS Twenty (20) Issues Total

## 1) **Environmental Justice**

Assess whether minority and low-income populations will be disproportionately affected.

Twin Falls → Jerome

Driving distance: approximately 13 miles (21 km) via US-93/US-30 .

Jerome → Shoshone

Driving distance: approximately 19 miles (30 km) following US-93/US-26

Twin Falls to Jerome: ~13 mi (21 km).

Jerome to Shoshone: ~19 mi (30 km).

Jerome to Shoshone: ~19 mi (30 km).

The proposed site of the Midpoint Small Modular Reactor Project #1 (the subject of this DEIS) is approximately nine and  $\frac{3}{4}$  (9  $\frac{3}{4}$ ) miles from Shoshone, Idaho. Shoshone, Idaho, is 19 miles N.E. of Jerome, Idaho, and Jerome, Idaho, is thirteen miles N.E of Twin Falls, Idaho. Between the three cities there are no neighborhoods, hamlets, or towns of any type.

The population and ethnic background of each city mentioned is as follows:

### **Twin Falls, ID (City)**

Estimated population (2023): ~54,943

Racial/Ethnic Makeup:

White (non-Hispanic): 75.5% (~40.2 k)

Hispanic (any race): 15.9% (~8.48 k)

Two or More Races: ~4.4%

Other Race: ~5.0%

Asian: ~2.3%

Black/African American: ~1.2%

Native American & Pacific Islander combined: <1%

**Jerome, ID (City)**

Population (2020 Census): 12,349

Racial/Ethnic Makeup (2020):

White: 63.9%

Hispanic or Latino (any race): 46.1%

Two or More Races: 25.5%

Native American: 1.2%

Asian: 0.7%

Pacific Islander: 0.2%

Black: ~0%

Note: City data overlaps race categories and “Hispanic or Latino,” so percentages exceed 100%.

Recent estimate (2023): ~12,689 (via ACS) with breakdown less precise – ~47.4% White non-Hispanic, ~48.5% Hispanic combined groups [9](#)

**Shoshone, ID (City)**

Population (2020 Census): 1,653

Racial/Ethnic Makeup (2020):

White: 54.1%

Hispanic or Latino: 41.7%

Multiracial: 3.0%

Native American/Other: 0.7%

Asian: 0.4%

Black: 0.2%

Estimated demographic shift (2023):

White: ~61.4%

Other Race: ~10.1%

Native American: ~3.8%

Two+ Races: ~23.0%

Black: ~1.3%

Asian: ~0.35%

Note: The increase in “Two or More Races” reflects evolving census categories and self-identification trends.

#### Summary Table

City	Population	White	NH	Hispanic	Two+ Races	Asian	Black	Native American
Twin Falls	~54,943	75.5%		15.9%	~4.4%	~2.3%	~1.2%	<1%
Jerome	12,349	63.9%		46.1%	25.5%	0.7%	~0%	1.2%
Shoshone	1,653	54.1%		41.7%	3.0%	0.4%	0.2%	0.7%

#### Notes & Observations

Twin Falls is the most diverse, with a significant Hispanic population (~16%) and growing multiracial and other racial segments.

Jerome shows a strong Hispanic presence (~46%) and a large proportion identifying with two or more races (~25%).

Shoshone is small but similarly diverse, with a majority White population (~54%) and a large Hispanic community (~42%).

Midpoint SMR Project #1 is 2 ¾ miles east of State of Idaho Highway 93 (the highway that connects Shoshone, Idaho, to Jerome, Idaho, and Twin Falls, Idaho). This 2 ¾ mile distance has a dirt road that eventually reaches Section 17 (where the Midpoint SMR Project #1 is projected to be built). However, the actual project will be built on a 40-acre parcel located at the NW 1/4 of the NW 1/4 of said section 17, and at this time, there is no road or even a pathway to this 40-acre parcel. The closest home to the parcel where the reactor will be built is two (2) miles away, and thereafter the nearest home is located five (5) miles away. This section, 17 or 640 acres, is part of a much larger parcel of land which has been under BLM management for decades. The entire parcel is 186,000 acres (mostly east of the subject property) in size. The entire Section 17 is surrounded on all sides by BLM-managed land, which has absolutely no homes, or structures, or roadways of any kind located upon it. The 186,000 acres (including section 17) is dry desert ground that has been utilized for dry-land cattle grazing.

#### Current poverty levels (ACS 2019–2023, 5-year)

County (covers town)	% of people below poverty line	2019 → 2023 trend
<b>Jerome County</b> (Jerome)	<b>13.9%</b>	19.0% → 13.9% (improving)
<b>Twin Falls County</b> (Twin Falls)	<b>10.7%</b>	14.3% → 10.7% (improving)
<b>Lincoln County</b> (Shoshone)	<b>9.4%</b>	12.1% → 9.4% (improving)

#### City snapshot for context

- **Twin Falls (city):** 10.8% ±1.9% below poverty (city-only view).

#### Read of the landscape

- **Highest poverty** among the three counties: **Jerome County** (13.9%).
- **Middle:** **Twin Falls County** (10.7%).
- **Lowest:** **Lincoln County** (9.4%).

All three counties have seen **meaningful improvement since 2019**, with the steepest drop in Twin Falls County.

Due to the remoteness of the area (section 17), the size and population of the three communities involved in the region, and the small population of minority and low-income populations which live primarily in the three small communities it is doubtful that any minorities or low income individuals or families will be disproportionately affected by either the construction or operation of a nuclear power plant to be located on section 17. In fact, the construction and operation of a nuclear power plant will likely have a positive impact on minorities and low-income individuals, resulting from the numerous jobs created and the overall economic boost to the local economy that the new plant will bring. See Lava Ridge Wind FEIS 2004.

## 2) Threatened and Endangered Species

Evaluate potential impacts on federally or state-listed species and their habitats.

Reference: Bureau of Land Management (BLM). 2024. FEIS Environmental Impact Statement for the Lava Ridge Wind Project. Final Record of Decision was in September 2024, U.S. Department of the Interior, Twin Falls District Office, Idaho.

- a) During the Application and Draft Environmental Impact Statement process, the Lava Ridge Wind Project was planned to include the construction of 400 turbines on three large cattle grazing lease allotments: the North Milner Allotment, the Star Lake Allotment, and the Sidd Allotment, totaling 186,000 acres. The Midpoint Small Modular Reactor Project #1 is proposed on a 40-acre portion of land within the North Milner Allotment. In the Lava Ridge Wind Project Final EIS, the project was ultimately approved for parts of both the Star Lake Allotment and the North Milner Allotment, but all three allotments were initially considered and analyzed as potential locations for the project in the FEIS for Lava Ridge.
- b) The Midpoint SMR Project #1 proposed location is approximately seven (7) miles east of the proposed Lava Ridge Wind Project location. The terrain and landscape of the Lava Ridge Project and the Midpoint SMR Project #1 are identical in nature (dry desert grazing leased ground). However, in the FEIS the Lava Ridge Wind Project encompasses a physical layout in excess of 62,000 acres of land and 241 VERY large windmill structures whereas the Midpoint Small Modular Reactor Project #1 is to be constructed on less than 40 acres of land with substantially less site preparation and habitat disturbance and/or destruction.
- c) The Lava Ridge Wind Project FEIS includes substantial notes, topics, books, studies, reports, and conclusions justifying the positions taken in said FEIS. All of this information found in the Lava Ridge Wind Project is cogent, relevant, and has been utilized in the writing of this DEIS and will be utilized in the future development of any FEIS for the Midpoint SMR Project #1.
- d) Throughout this DEIS, information has been pulled from the Lava Ridge Wind Project FEIS and placed into this DEIS to cut back (as appropriate) on redundant efforts and costs in the preparation of this DEIS. The Lava Ridge Wind Project DEIS and FEIS cost over \$6,500,000.00. All final comments were thoroughly investigated by professional BLM personnel and documented in the FEIS. Many of those comments are now part of this DEIS. Threatened and Endangered Species was one of many areas that were covered in the Lava Ridge FEIS. It was determined that the construction of hundreds of large windmills would not threaten or endanger various species. There were some reservations as to a couple of species, and those exceptions have been covered in multiple parts of this DEIS. Midpoint SMR Project #1, in its lengthy Environmental Commitments (see

below), will always protect the various threatened and endangered species found at our proposed construction site in Section 17 of Jerome County.

### **3) Aquatic Ecology (non-cooling water impacts)**

There will be no aquatic impacts at the proposed site, which has no known aquatic features or highlights other than its subterranean water source (via deep well) is available. As discussed further in this DEIS, there will be zero city or municipality services available to our construction location on Section 17 in Jerome County, Idaho. As such, to provide drinking water, cooking water, and bathroom facilities for our employees working at the site, Midpoint SMR Project #1 will be required to drill a culinary water well (drilled approximately 150 feet deep into the Northside Aquifer) on the property. This source of water will be more than sufficient, as we are exploring possible SMR equipment providers to sell the organization reactor equipment that does not require water as a coolant or has a need to drain or eliminate waste coolant away from the reactors. Consequently, a wastewater plastic-lined pit will be constructed, located several hundred yards south of the reactor building (downhill), to handle all gray water that accumulates at the facilities where the reactors are located. This wastewater and material will be deposited in the open reservoir and subject to local evaporation profiles.

### **4) Terrestrial Ecology**

Assess impacts to land-based ecosystems and wildlife, including habitat loss and fragmentation.

As discussed above and throughout this DEIS, the overall size of the property managed by the BLM is in excess of 186,000 acres of dry desert grazing property. Midpoints' eventual granting by the BLM of 320 acres in section 17 is a very small and relatively insignificant parcel of ground. Further, the entire Midpoint reactor installation will take place on the NW  $\frac{1}{4}$  of the NW  $\frac{1}{4}$  of section 17, or 40 acres. This footprint will leave more than sufficient ecosystem for all wildlife and plant life to stretch and find suitable terrain upon which to exist. Regardless, as is further identified in the DEIS, precautions will be undertaken to see to it that needful plants and wildlife are protected and not placed under undue strain during either the construction phase or the operational phase of development. Of the 320 acres that we will be granted the use of by the BLM, only 40 acres will be subject to any land disturbance during the construction phase. The



balance of the property will be left in its natural state as a buffer zone to protect the reactor site from unwanted intruders (wandering cattle) and as a safety zone to protect the reactor area from the occasional prairie wildfires.

#### **5) Site-Specific Groundwater Use and Quality**

Analyze site-specific groundwater withdrawals, flow changes, and contamination risks.

There is no groundwater at or even near Midpoint SMR Project #1. The closest groundwater would be located in an irrigation canal located approximately eight (8) miles away to the south of the reactor location. Even irrigation water wells are more than two (2) miles away from the reactor site, and it would be very difficult to contaminate a cased deep water well somehow. So, Midpoint will not use any type or form of groundwater. Hence, it would be impossible to change groundwater flow or contaminate groundwater when there simply is no groundwater anywhere near the proposed site of the reactors.

#### **6) Surface Water Use and Quality (site-specific)**

Evaluate thermal discharges, effluent composition, runoff, erosion, and sedimentation impacts.

Based upon the reactor equipment that SEDC is seriously looking at purchasing, there should be no thermal discharges, effluent compositions, runoff, erosion, or sedimentation impacts. The only runoff will be as a result of transferring the gray water from the facility to the open plastic line reservoir south of the operation. This transfer will take place in a plastic wastewater pipe until it reaches the reservoir, so there will be no erosion or sedimentation impacts.

#### **7) Hydrology and Flooding**

Assess food risks (riverine, precipitation, and dam failure) and projects' effects on hydrology.

The area around Jerome, Idaho, is quite dry, sitting in Idaho's semi-arid Snake River Plain. Here's a breakdown of the annual precipitation:

Annual Precipitation in Jerome, ID

10.7 inches per year (average measured over 1981–2010)

Other sources round this to 10–11 inches annually, including 11.7 inches (298 mm) noted by Time and Date.

This total includes rainfall and the liquid equivalent of snow, hail, sleet, and other precipitation forms.

#### Monthly Breakdown (approximate)

Based on monthly averages:

Month	Inches
Wettest: December	~1.4"
Spring average: March–May	
Driest: July–August	~0.4" total

#### What This Means

Annual precipitation ~10–11" positions Jerome among the driest areas in Idaho.

Seasonality: Most precipitation occurs in late fall and winter, tapering off during hot, dry summers.

Impact on lifestyle and environment: Water conservation is key, with irrigation dominating water use. The dry conditions also contribute to frequent irrigation-dependent agriculture in the region.

All water dams in the area are located twenty (20) miles south of the proposed location in the deep Snake River Canyon. A dam collapse would not affect the operation of the proposed reactor site in any way. There are occasional irrigation canal blowouts that can affect the local area, but the nearest irrigation canal is located eight (8) miles south of the reactor location. The Midpoint SMR Project #1 will have no effect (one way or another) on hydrology.

### **8) Wetlands**

Analyze direct and indirect impacts on jurisdictional and non-jurisdictional wetlands.

There simply are no wetlands to have an impact on within at least thirty (30) miles of the Midpoint SMR Project #1. West of the project location, on the Snake River after it flows out of the deep canyon, approximately

thirty (30) miles west of the project location, wetlands are present. However, any wetlands that occur in Jerome County are all temporary, created by irrigation water from the canals that rush to low-lying areas around the canals. These wetlands only last as long as there is water in the canal. The canals only have water in them for approximately five (5) months of the year. There are no canals within several miles of the proposed reactor location. SEDC's reactor project will have no direct or indirect impact on jurisdictional and non-jurisdictional wetlands.

## **9) Air Quality (Non-Radiological)**

Evaluate construction and operational emissions (dust, diesel, criteria pollutants)

Install real-time anemometers and dust monitors at key work zones during construction. Use the site's wind rose data to inform dust control managers, showing prevailing winds from the west or southwest. Suspend excavation and dust-generating activity when sustained winds exceed 25 mph. Apply water to unpaved roads and storage areas several times during the day during construction.

Make sure that the electric diesel generator is well ventilated and operating as cleanly as possible. Regularly install new air filters and check for excessive exhaust smoke from the generator.

## **10) Cultural and Historic Resources**

Assess potential adverse effects on archaeological sites and historic structures.

Reference: Bureau of Land Management (BLM). 2024. Final Environmental Impact Statement for the Lava Ridge Wind Project. Final Record of Decision was in September 2024, U.S. Department of the Interior, Twin Falls District Office, Idaho.

During the Application and Draft Environmental Impact Statement process, the Lava Ridge Wind Project was to encompass the construction of 400 windmills on three (3) very large cattle grazing lease allotments (the North Milner Allotment, the Star Lake Allotment, and the Sidd Allotment, composed of 186,000 acres). The Midpoint Small Modular Reactor Project #1 is proposed on a 40-acre portion of land in the North Milner Allotment. In the Lava Ridge Wind Project Final EIS, the project was ultimately approved for portions of both the Star Lake Allotment and

the North Milner Allotment, but all three allotments were originally considered and studied as possible locations for the project in the FEIS for Lava Ridge.

The Midpoint SMR Project #1 proposed location is approximately seven (7) miles east of the proposed Lava Ridge Wind Project location. The terrain and landscape of the Lava Ridge Project and the Midpoint SMR Project #1 are identical in nature (dry desert grazing leased ground). However, in the FEIS the Lava Ridge Wind Project encompasses a physical layout in excess of 62,000 acres of land and 241 VERY large windmill structures whereas the Midpoint Small Modular Reactor Project #1 is to be constructed on less than 40 acres of land with substantially less site preparation and habitat disturbance and/or destruction.

Lava Ridge Wind Project FEIS includes substantial notes, topics, books, studies, reports, and conclusions justifying the positions taken in said FEIS. All of this information found in the Lava Ridge Wind Project is cogent, relevant, and has been utilized in the writing of this DEIS and will be utilized in the future development of any FEIS for the Midpoint SMR Project #1.

Throughout this DEIS, information has been pulled from the Lava Ridge Wind Project FEIS and placed into this DEIS to cut back (as appropriate) on redundant efforts and costs in the preparation of this DEIS. The Lava Ridge Wind Project DEIS and FEIS cost over \$6,500,000.00. All final comments were thoroughly investigated by professional BLM personnel and documented in the FEIS. Many of those comments are now part of this DEIS.

Cultural and Historic Resources was one of those topics. It was determined that the construction of hundreds of large windmills would not pose a threat to any known cultural and historic resources. There were some reservations regarding the fact that during construction, crews might run across unknown Native American Burial sites or find previously unknown Native American artifacts. Those exceptions have been addressed in multiple sections of this DEIS. Midpoint SMR Project #1, in its lengthy Environmental Commitments (see below), will always protect the known and unknown Native American cultural and historic resources at our proposed construction site in Section 17 of Jerome County.

SAWTOOTH ENERGY & DEVELOPMENT CORPORATION

## Policy & Procedure: Unanticipated Discovery of Native American Cultural or Historic Resources

Effective Date: September 26, 2025

Applies To: All construction contractors, site employees, and subcontractors at Midpoint SMR Project #1

### Policy Statement

It is the policy of Sawtooth Energy & Development Corporation (SEDC) to ensure immediate protection of any discovered Native American cultural artifacts, human remains, or historic resources encountered during ground-disturbing activities. All discoveries will be handled in accordance with the National Historic Preservation Act (NHPA), Native American Graves Protection and Repatriation Act (NAGPRA), and applicable tribal and federal guidelines.

### Procedure

- a) Immediate Work Stoppage
- b) If any employee or contractor encounters:
  - Human remains,
  - Bone fragments,
  - Pottery shards,
  - Stone tools,
  - Rock alignments,
  - Charred wood or midden soils,

They must stop all work in the immediate area (minimum 100-foot buffer) and notify their supervisor immediately.

- c) Secure the Area
  - The supervisor shall:
    - i) Secure the location to prevent further disturbance.
    - ii) Notify the SEDC Site Environmental Compliance Officer (ECO) without delay.
    - iii) Notify Authorities
      - The ECO shall:
    - iv) Notify the SEDC Project Manager,

Contact the appropriate regulatory agencies, including the Idaho State Historic Preservation Office (SHPO) and the Bureau of Land Management (if on federal land),

- v) Notify affected Tribal Historic Preservation Officers (THPO) if applicable.
- d) Do Not Disturb  
No items are to be removed, collected, or photographed by unauthorized personnel. The find must remain in place until evaluated by qualified cultural resource professionals.
- e) Resume Work  
  
Construction may only resume upon:  
  
Written clearance from SHPO, BLM, and/or appropriate Tribal authorities,  
  
Documentation of mitigation steps, if required.
- f) Compliance and Training  
  
All project personnel will be trained on this procedure during pre-construction orientation and annually thereafter.

## **11) Noise and Vibration**

Evaluate construction noise, operational noise, and blasting/vibration (if any).

All construction personnel will be advised to wear protective noise-reducing headgear if they believe the noise level during construction exceeds what they would typically encounter in other construction projects. Regarding project staff and part-time staff, after construction is completed, they will work in a separate office building on-site, with sufficient noise reduction and an interior design that significantly minimizes noise and equipment vibration that may be generated from the reactor location.

## **12) Visual and Scenic Resources**

Analyze changes to the visual landscape, including any mitigation such as vegetative buffers.

At the Midpoint Small Modular Reactor Project #1, the reactor installation structure, storage building, and office building will be color-coordinated to enhance the natural characteristics of the native desert terrain. The project building will display light browns and greys with lush green grass and

sculptured landscaping with bushes and flowers. Outside the area just described will be an 80-vehicle asphalt auto parking lot with parking spots clearly identified with white lines and strips. Every effort will be made to ensure that the color of all buildings blends with the natural colors of the terrain, thereby enhancing the landscape's natural beauty.

### **13) Land Use Plans and Zoning Compatibility**

Assess project conformance with local, state, tribal, or federal land use plans.

The property upon which the nuclear project will be built is BLM managed land. As a result, there is no need to consult with or give attention to local land use plans. However, in light of Sawtooth Energy & Development Corporation's desire to have all "buy-in" from all local and state officials to the project, the company has given notice to all County Commissioners from both Jerome and Lincoln counties, including either receiving an uncompleted DEIS or a commitment to send to them a completed DEIS once the document has been completed. Further, the Jerome Chairman of the County Land Use and Planning committee has received correspondence indicating our desire to coordinate all future plans with them for the nuclear reactor site and to send them a completed copy of the DEIS once it is completed in August of 2025.

All federal Representatives and Senators in Washington D.C. have received correspondence from Sawtooth (including an uncompleted but extensive preview copy of our DEIS) as well as the Governor of the State of Idaho, the governor's Energy Administrator and numerous State elected officials have also received a letter from our office as well as an uncompleted but extensive copy of our DEIS. All offices that we have communicated with have been asked to review and comment on our DEIS and to provide input into the proposed plan of operation.

### **14) Socioeconomics (Employment, Housing, and Services)**

Quantify population growth, job creation, strain on housing, schools, and local services.

The following is a rundown listing of the type and number of individuals that will be hired upon completion of the construction work at the Midpoint SMR Project #1 site:

a) OPERATIONS & MAINTENANCE STAFF (\$30M/year)

Role	# Staff	Annual Salary (avg)	Total Annual Cost
Operations Manager	1	\$180,000	\$180,000
Shift Supervisors (24/7 coverage)	4	\$150,000	\$600,000
Licensed Reactor Operators	12	\$140,000	\$1,680,000
Non-Licensed Operators/Techs	8	\$100,000	\$800,000
Instrumentation & Control Techs	4	\$110,000	\$440,000
Mechanical Maintenance Techs	4	\$95,000	\$380,000
Electrical Maintenance Techs	4	\$95,000	\$380,000
Radiation Protection Techs	4	\$100,000	\$400,000
Chemists/Lab Staff	2	\$95,000	\$190,000
Maintenance Manager	1	\$150,000	\$150,000
Materials/Parts Coordinator	1	\$75,000	\$75,000
Subtotal	45		~\$5.28M

Phase staff hiring over time,

Outsource some maintenance functions,

Reassign responsibilities across fewer people.

SECURITY (24/7) (\$12M/year)

Role	# Staff	Pay/Year	Total Annual Cost
Security Supervisor	3	\$110,000	\$330,000
Security Officers	24	\$90,000	\$2,160,000
NRC Compliance Liaisons	2	\$140,000	\$280,000
Contracted 3rd Party Remainder	—	—	~\$9.2M for vendor + overhead



Security is often partially contracted but requires an NRC-approved physical security plan and 24/7 armed personnel on rotating shifts.

#### ADMINISTRATIVE / IN-HOUSE SUPPORT (part of \$8.4M combined Admin + HR)

Role	# Staff	Salary	Cost
HR Director	1	\$150,000	\$150,000
HR Coordinator	1	\$85,000	\$85,000
Payroll & Benefits Clerk	1	\$75,000	\$75,000
A/R & A/P Clerk	1	\$75,000	\$75,000
Senior Accountant	1	\$115,000	\$115,000
Office Manager	1	\$80,000	\$80,000
Receptionist	1	\$55,000	\$55,000
IT/Network Admin	1	\$95,000	\$95,000
General Counsel/Compliance	1	\$175,000	\$175,000
Subtotal	9		~\$905,000

#### TOTAL ESTIMATED STAFFING

Department	# People
Operations & Maintenance	~45
Security	~30
Administrative/Finance/HR	~9
Other Support (IT, Legal, etc.)	~4
Estimated Total Staff	~88–95 (FTEs)

Population growth in the Magic Valley area (Twin Falls, Idaho, Jerome, Idaho, and Shoshone, Idaho) is the following:

Here's a table showing population growth from 2014 to 2024 for four regions in Southern, Idaho locations:

Location	Population in 2014	Population in 2024	Change (Growth)
Twin Falls city	~46,490 (2014)	54,943 (2023 est.) → ~55,521 (2024 projection)	+9,031 over 10 yrs → +19.4 % increase
Twin Falls County (Magic Valley core)	~82,000+ (approx. 2014)	96,509 (July 1, 2024, est.)	+~14,500 → +17.7 % increase
Jerome city	11,227 (2014)	13,135 (2023 est.) → ~13,270 (2024 proj.)	+~2,043 +18.2 % increase ==> +2,043 +18.2 % increase
Shoshone city	1,653 (2020 census, likely ~1,650 in 2014)	~1,770 (2025 est.) → ~1,760 (2024 proj.)	+~110 → +6.5 % increase

#### Notes & Methodology

##### Twin Falls city:

2014 pop. (~46,490) drawn from Neilsberg's tracking of city population.

2023 Census est. is 54,943: projecting a modest rise, it's ~55,520 in mid-2024.

##### Twin Falls County (representing the core of Magic Valley):

U.S. Census QuickFacts shows 96,509 as of July 1, 2024

FRED county numbers indicate continuous growth since around 82 k in 2014 Jerome city:

Census-based estimates: 11,227 in 2014, rising steadily to 13,135 in 2023, Neilsberg+1Idaho Demographics+1; projected ~13,270 by mid-2024.

##### Shoshone City:

Census: 1,653 in 2020; World Population Review projects 1,770 in 2025 . Assuming steady growth, it's ~1,760 in 2024.

#### Summary Highlights

Twin Falls city surged approximately +19% from 2014 to 2024.

Twin Falls County (Magic Valley) grew ~18% during the same timeframe.

Jerome mirrored this trend with ~18% growth.

Shoshone saw more modest growth at around +6–7%.

This captures a decade of steady growth across the region, with Twin Falls and Jerome expanding significantly and Shoshone growing at a slower pace.

Please find below the number of new homes built in the Magic Valley area (Twin Falls, Idaho, Jerome, Idaho and Shoshone, Idaho between 2014 and 2024.

This table shows the annual number of new private housing units authorized (via building permits) in Twin Falls County, which covers the core Magic Valley including the cities of Twin Falls, Jerome, and Shoshone—from 2014 to 2024:

Year New Housing Units (Permits)

2014	80
2015	520
2016	560
2017	600
2018	650
2019	720
2020	959
2021	899
2022	518
2023	380
2024	634

Data source: Federal Reserve Economic Data (FRED), “New Private Housing Structures Authorized by Building Permits for Twin Falls County, ID”

The most recent value (2024) is 634 units, up from 380 in 2023—a noticeable rebound.

#### Notes & Insights

**2014–2019 Growth:** The county saw steady growth in new homes, reaching a peak of 959 units in 2020.

**Pandemic Dip & Bounce:** A dip followed in 2022–2023 (518 → 380), likely reflecting pandemic and economic uncertainties, before bouncing back to 634 in 2024.

**County-wide Data as Proxy:** Specific permit data for Jerome and Shoshone isn't published separately; county-level data offers the best regional insight. These cities likely follow the broader trend.

With approximately 95 new hires by Midpoint SMR Project #1, once construction is completed, it appears that the strain on housing would not be significant, taking into consideration that many of the 95 new employees (approximately half) will already be residents of the affected cities and have a home or a dwelling and will not be affecting the housing market in any way.

There will be little or no strain on local services due to the Midpoint SMR Project #1 location of the reactor facility, which is 2 ¾ miles into the desert terrain of Southern Idaho. See below for the possible strain on schools in the Magic Valley area resulting from the 95 hires at the Midpoint facility.

Unfortunately, comprehensive yearly data on new schools built in the Magic Valley (Twin Falls, Jerome, Shoshone) from 2014 to 2024 isn't centrally tabulated. However, by piecing together public records and news reports, here's the best reconstructed timeline:

Year	City / District	Event (New School or Major Facility)
2016	Twin Falls	Rock Creek Elementary opens; Pillar Falls Elementary opens; ground-breaking on South Hill Middle School
2023	Jerome	Frontier Elementary scheduled to open Fall 2023.
2023	Twin Falls (Charter)	New building for Pinecrest Academy K–8; groundbreaking Jan 2023

No records indicate brand-new school openings in Shoshone during this decade. The 2023 bond for Shoshone Elementary focused on renovations, not new construction.

## Visual Summary

Year → 2014 2015 | 2016 | 2017–2022 | 2023 | 2024

-----|-----|-----|-----|-----|-----

New schools | 0 | 0 | 3 | 1 | 0

2016 was a high construction year for new Twin Falls district schools (3).

2023 featured one major new school in Jerome and one charter school facility in Twin Falls.

Other years saw no new school openings, though renovation and expansion bonds were passed for Middle/High School facilities across the district.

### Contextual Highlights

The Twin Falls School District addressed rapid enrollment growth (10% increase 2012–14) by passing a bond, bringing three new schools online in 2016 Jerome’s Frontier Elementary responds to local population pressures and completes its build-out by Fall 2023.

Pinecrest Academy, a charter K–8 school in Twin Falls, began construction of a \$13.8 M dedicated facility in early 2023.

Though Shoshone had renovation efforts funded in 2023, there were no reports of newly built schools.

See below the number of students enrolled in Magic Valley Public Schools between 2014 and 2024.

Twin Falls School District (#411) – Twin Falls County

From Idaho Report Card:

2020: 9,477

2021: 9,064

2022: 9,167

2023: 9,104

2024: 8,974

Jerome Joint School District (#261) – Jerome County

Specific fall K–12 totals by year aren’t available online. However:

Jerome High School (grades 9–12) had 1,156 students in 2023–24

Complete K–12 history is in the Idaho SDE spreadsheet, which I can’t directly access.

Shoshone Joint School District (#312) – Lincoln & part of Jerome County

Current district enrollment is approximately:

471 students (pre-K–12) as of 2016–17.

No historical annual breakdown is publicly listed online.

Summary Table (Partial)

District / County	2020	2021	2022	2023	2024
Twin Falls #411 (Twin Falls Co.)	9,477	9,064	9,167	9,104	8,974
Jerome #261 (Jerome Co.)	—	—	—	—	—
Shoshone #312 (Lincoln/Sh. Co.)	—	—	—	—	—
Partial Magic Valley Total	9,477+	9,064+	9,167+	9,104+	8,974+

Notes:

A “+” indicates additional students in Jerome and Shoshone districts that will raise the total.

Jerome’s K–12 total is higher than the high school alone (1,156).

Shoshone’s entire K–12 population is likely close to 471 (2016–17 figure).

It appears that school enrollment in Twin Falls County has declined over the last few years, indicating that there may now be room for schools to take on more students from individuals employed by Sawtooth Energy & Development Corporation.

## **15) Transportation and Traffic**

Evaluate construction traffic impacts, road use, material deliveries, and emergency access.

State Highway 93 in the State of Idaho is a straightaway road section that runs from the city of Twin Falls, Idaho, through to the well-known resort of Sun Valley, Idaho. It passes through Twin Falls County, Jerome County, and Lincoln County. It is the main

transportation route running north and south through the Magic Valley. At the 14-mile marker from Jerome, Idaho (running N.E. from Jerome), the Midpoint Substation is located on that corner, which is where the turn east (going 2 ¾ miles east) would take you to the Midpoint Small Modular Reactor Project #1 location. Highway 93 is of paramount importance to the Midpoint SMR project #1. All material deliveries and emergency services would have to utilize this highway in order to support the nuclear project proposed.

State of Idaho Highway 93 is a two-lane highway that is highly supported in the wintertime due to its importance to the communities it passes through. It can, at times, be a busy stretch of roadway. However, when compared to any major roads in any major community, its capacity is never stretched beyond its ability to handle the traffic. Regardless of how fast the construction operation developed, it is highly unlikely that it would ever push the bounds of the highway to keep the traffic moving. In fact, any and all deliveries or emergency services to the construction location would not be hampered by unusually high roadway traffic delays or traffic jams. Any delays in either deliveries or the need for emergency services would be caused by anything other than congested State Highway 93.

#### ITD Traffic-Count Portal & AADT Data

The Idaho Transportation Department publishes Annual Average Daily Traffic (AADT) values via its interactive road data portal. You can:

Access the AADT Map Application and filter by SH-93 in District 4 (South-Central Idaho, covering Twin Falls, Jerome, Lincoln, and Shoshone counties) to view station-specific volume data.

Click on numbered stations along SH-93 to download the most recent AADT reports, plus historical monthly and yearly CSV/PDF data.

These are official engineering-level measurements ideal for assessing highway congestion.

#### District-Level AADT Reports

While ITD does not publish a single compiled PDF for each highway, it provides:

Shapefiles and station inventories include:

Location coordinates

AADT and directional vehicle volumes

Design Hourly Volume (DHV)

Multi-year trends

Rural traffic flow maps (by district/year), showing AADT values for SH-93 segments—useful for comparing traffic volumes along different stretches.

Interpreting Congestion on SH-93

Though SH-93 is not a high-congestion urban freeway, it serves as a primary regional corridor:

In Twin Falls, AADT typically ranges from 12,000–18,000 vehicles/day, with peak values near the I-84 interchange and Perrine Bridge.

North of Jerome, volumes generally drop to 8,000–12,000 vpd, reflecting more rural character.

Shoshone/Lincoln area closer to SH-75 connection shows 6,000–10,000 vpd, still moderate.

Exact station data is available on the ITD portal.

Road Safety & Performance Context (AADT & HSIP)

SH-93 has been evaluated as part of ITD’s Highway Safety Improvement Program (HSIP), using Highway Safety Corridor Analysis (HSCA) to prioritize locations with higher crash severity. These studies may include AADT statistics in annual HSIP reports, which can help correlate accident rates with traffic volume on highway segments.

## **16) Waste Management (Non-Radiological)**

Analyze the handling and disposal of construction and operational solid and hazardous waste.

SSEDC Policy and Procedure: Waste Handling and Disposal at the Reactor Site

Policy Statement:

Sawtooth Energy & Development Corporation (SEDC) is committed to the safe, lawful, and environmentally responsible handling, storage, and disposal of all construction and operational waste—including solid and hazardous materials—generated during the life cycle of the Midpoint SMR Project #1. All waste management activities shall be performed in compliance with applicable federal, state, and local regulations, including those enforced by the U.S. Environmental Protection Agency (EPA), the



Nuclear Regulatory Commission (NRC), and the Idaho Department of Environmental Quality (IDEQ).

**Construction Phase Procedures:**

During construction, all solid construction debris, including concrete, rebar, scrap metal, wood, packaging, and other inert materials, shall be collected in segregated containers for recycling or disposal at licensed off-site facilities. Any construction-related hazardous waste (e.g., solvents, adhesives, contaminated soil, or fuel residues) will be clearly labeled, stored in secondary containment, and disposed of through certified hazardous waste contractors. On-site personnel will receive training in proper waste segregation and spill response, and weekly inspections will be conducted to ensure compliance and maintain containment integrity.

**Operational Phase Procedures:**

Once operational, the facility will generate limited amounts of solid municipal and industrial waste, as well as operational hazardous materials such as lubricants, chemical cleaners, or maintenance-related residues. All routine solid waste will be collected and removed by a licensed disposal service. Any hazardous waste will be inventoried, stored in compliance with Resource Conservation and Recovery Act (RCRA) requirements, and removed by licensed hazardous waste handlers on a documented schedule. Special care will be taken to prevent cross-contamination with radiological materials, which are handled under NRC regulations and separate procedures.

**Documentation and Oversight:**

All waste generation, storage, and disposal activities will be documented in a Waste Management Log and reviewed annually. Incident response plans, Material Safety Data Sheets (MSDS), and contractor certifications will be kept on file. Periodic audits will be conducted by the facility's Environmental Compliance Officer to ensure ongoing adherence to this policy.

**17) Decommissioning Impacts (Site-Specific)**

Assess the local effects of dismantling and site restoration beyond generic analysis.

**SEDC DECOMMISSIONING AND RECLAMATION PROCEDURE**

**Facility Shutdown and Equipment Clearance**

All nuclear reactor modules and associated turbine generator systems will be permanently shut down and defueled.

Spent nuclear fuel will be transported off-site to an approved federal or commercial disposal/repository facility in accordance with Nuclear Regulatory Commission (NRC) regulations.

All salvageable reactor components, turbines, pumps, instrumentation, and facility furnishings will be dismantled, removed, and either recycled or disposed of in accordance with state and federal law.

All auxiliary and support buildings will be disassembled and removed from the site.

#### Wastewater Treatment Area Decommissioning

All liquids and residual sludge in the wastewater storage and treatment area will be removed, characterized, and disposed of in accordance with applicable EPA and DEQ guidelines.

Tanks, liners, piping, and associated infrastructure will be dismantled and hauled off-site.

The area will be tested for residual contamination and, if necessary, remediated to meet BLM and state environmental standards.

#### Subsurface Infrastructure Removal

Foundations, buried tanks, below-grade vaults, and conduit will be excavated and removed.

Reactor containment basins or storage tanks will be collapsed inward or removed, as determined to be feasible during the engineering assessment.

Excavations will be backfilled with clean, uncontaminated native soil sourced locally and approved by the BLM.

#### Surface Regrading and Reseeding

All disturbed areas will be contoured to match the surrounding topography and natural drainage patterns.

Soil will be stabilized with native topsoil and reseeded using a BLM-approved native prairie grass seed mix suitable for the climate and soil conditions of Jerome County, Idaho.

Post-seeding maintenance (erosion control, weed management) will be conducted for a minimum of 3 years to ensure successful reestablishment.

#### Roadway Preservation

The primary access road into the site may remain intact for continued rancher or public use, subject to BLM approval.

All other internal roadways will be removed and regraded as part of the restoration process.

#### COMPLIANCE MONITORING AND REPORTING

A final Decommissioning and Reclamation Plan (DRP) will be submitted to the BLM and NRC for approval not less than five years prior to lease expiration.

Environmental and structural assessments will be documented and shared with appropriate regulatory agencies during each decommissioning phase.

BLM and state-designated monitors will be granted access to verify compliance during all reclamation activities.

#### FUNDING ASSURANCE

SEDC shall maintain a financial assurance instrument (e.g., surety bond or decommissioning trust fund) sufficient to cover all decommissioning, dismantlement, and reclamation costs, to be updated every ten years or as required by the BLM.

#### CONCLUSION

The Sawtooth Energy & Development Corporation is fully committed to restoring the Midpoint SMR Project #1 site to its predevelopment prairie condition at the end of the project's useful life. This commitment ensures continued stewardship of public lands in harmony with the BLM's mission.

### **18) Radiological Accidents (Severe Accidents-Site Specific)**

Evaluate beyond-design basis accident scenarios and site-specific off-site consequences.

SEDC Severe Radiological Accident Response Plan (Site-Specific for Midpoint SMR Project #1)

a) Purpose and Scope This Radiological Accident Response Plan outlines the procedures, responsibilities, and mitigation measures for responding to severe accidents at the Midpoint Small Modular Reactor (SMR) Project #1 site in Jerome County, Idaho. It is designed to address rare but high-consequence events, including natural disasters, aircraft impacts, hostile incursions, and acts of sabotage that could threaten reactor safety or containment integrity.

b) Foundational Assumptions

- i) The Midpoint SMR design incorporates passive safety systems capable of core cooling without operator action or external power.
- ii) The reactor site will maintain continuous monitoring, hardened perimeter security, and advanced seismic, flood, and intrusion detection systems.
- iii) Local emergency services (fire, law enforcement, EMS), federal partners (FEMA, DOE, NRC), and Idaho's Office of Emergency Management will coordinate response and recovery efforts.

c) Natural Disaster Events

- i) Major Earthquake
  - ii) Seismic sensors trigger automatic shutdown (SCRAM) procedures.
- iii) All modules passively enter safe shutdown mode; decay heat is removed without external power.
- iv) On-site Incident Commander (IC) activates Seismic Response Protocol.
- v) Structural assessments of containment, spent fuel pool, and critical facilities begin within 30 minutes.
- vi) Communications established with the Idaho Geological Survey and the NRC's Region IV Response Center.
  - i) Flash Flooding
  - ii) Site grading and drainage prevent reactor pool inundation; critical systems are elevated.

- iii) Flood barriers automatically deploy at building access points.
- iv) IC activates Flood Response Team; essential personnel relocate to upper floor control center.
- v) NRC notified within 1 hour; hydrologic monitoring continues through automated telemetry.
- i) Wind Event >100 mph (Tornado or Straight-Line Winds)
- ii) Wind-speed sensors tied to site alarm system.
- iii) Personnel shelter-in-place within reinforced areas.
- iv) Any damage to structures or perimeter is immediately assessed post-event.
- v) NRC, Idaho Office of Emergency Management, and FAA are notified if any airborne debris is suspected of affecting safety-related systems.

#### External Human-Caused Events

- i) Aircraft Crash onto Reactor Site
- ii) Site design adheres to 10 CFR Part 50.150 Aircraft Impact Assessment for SMRs.
- iii) Concrete shielding and underground pool structure mitigate penetration risk.
- iv) Immediate automatic SCRAM; passive cooling ensures thermal safety.
- vi) IC notifies FAA, NRC, FBI, and Idaho State Police.
- vii) Site evacuation (non-essential personnel) and fire suppression initiated.
- viii) Emergency Operations Center (EOC) coordinates media and stakeholder communication.

#### Armed Attack or Terrorist Incursion

- i) Site protected by dual-fence system, vehicle barriers, and 24/7-armed security.
- ii) Intrusion sensors trigger lockdown and alert Jerome County Sheriff and NRC.
- iii) The Security Force follows pre-authorized Rules of Engagement (ROE).
- iv) Reactor modules enter automatic shutdown; control room locks down.
- v) FBI Joint Terrorism Task Force (JTTF) notified; site enters RED status.

- vi) After neutralization, a full integrity check of radiological barriers and command systems is conducted.

#### Gunfire Directed at Facility

- i) Ballistic shielding protects vital areas.
- ii) Acoustic gunshot detection activates internal lockdown and notifies law enforcement.
- iii) Site Security engages per training; the reactor enters safe passive shutdown if any impact is suspected near safety systems.

#### Radiological Release Prevention and Control

- i) Primary, secondary, and tertiary containment systems prevent the release of radioactive materials.
- ii) The site includes Negative Pressure Ventilation with HEPA/charcoal filtration.
- iii) Continuous air sampling inside and around the site perimeter.
- iv) Emergency Notification System (ENS) alerts authorities and the public within a 10-mile radius.
- v) NRC-approved radiological emergency zones are maintained and tested annually.

#### Emergency Response Structure

- i) On-Site Incident Commander (IC) coordinates immediate response.
- ii) Technical Support Center (TSC) and Emergency Operations Facility (EOF) activated within 60 minutes.
- iii) Unified Command Structure includes NRC Site Team, DOE technical advisors, Idaho National Laboratory, and local agencies.
- iv) Evacuation routes, emergency power, medical triage area, and mobile command units are pre-positioned.

## Recovery and Investigation

- i) Post-incident Recovery Team leads containment verification, contamination mapping, and system restoration.
- ii) NRC and DOE conduct a root-cause investigation. Long-term debriefing and corrective actions are documented per 10 CFR 50.72 and 50.73.

## Training and Drills

- i) All security, operations, and emergency staff receive annual severe-accident response training.
- ii) Full-site simulation drills are conducted every 24 months.
- iii) Coordination drills with Jerome County first responders and FEMA held annually.

Conclusion. SEDC is committed to maintaining the highest standards of nuclear safety and security. This response plan reflects conservative design principles, robust procedures, and a multi-agency safety net to manage and mitigate even the most extreme site-specific hazards at the Midpoint SMR Project #1.

## **19) Cumulative Environmental Impacts**

Account for the combined impacts of the past, present, and reasonably foreseeable projects.

Narrative on the Cumulative Impacts to the Midpoint SMR Project Property.

The property designated for the Midpoint Small Modular Reactor (SMR) Project #1 has remained in a largely undisturbed state for more than a century. Located in a semi-arid region of south-central Idaho, the parcel—situated in the NW¼ of the NW¼ of Section 17, Township 07 South, Range 18 East in Jerome County—has not been subject to any major construction, industrial use, or land-intensive development for well over 100 years. Historically, the land has existed in a natural, prairie-like condition with intermittent grazing and low-intensity rural activity at most. Because of this, the land currently retains much of its native character in terms of soils, surface features, vegetation, hydrology, and wildlife habitat.

Given this prolonged lack of disturbance, any modern, large-scale development on the property—no matter how thoughtfully designed—constitutes a significant change to its baseline environmental condition. The cumulative impacts of the Midpoint SMR Project must therefore be viewed through the lens of how it transforms an otherwise historically stable and natural tract of land into a high-intensity industrial energy generation site.

#### Past and Present Baseline Conditions

The absence of historical development on this land contributes to its ecological and visual integrity. There are no known prior industrial installations, utility corridors, or man-made reservoirs. There are no commercial operations or residential developments located directly on the property, and the nearest significant infrastructure is the Midpoint Substation, located approximately 2 3/4 miles away. As a result, this land has not been exposed to any meaningful level of environmental degradation, light pollution, noise, hazardous material exposure, or permanent structural presence.

#### Reasonably Foreseeable Impacts of Proposed Development

The Midpoint SMR Project, as currently envisioned, introduces a number of lasting and in some cases irreversible changes to the property. Among the most significant foreseeable impacts are the following:

- a) Permanent Asphalt Roadway (3 miles in length):  
Perhaps the most lasting and visually permanent impact of the project will be the construction of a paved access road that extends approximately three miles from the nearest existing transportation route to the project site. Unlike temporary disturbances from grading or excavation, asphalt roadways represent a hardened surface that alters surface water runoff, impedes natural revegetation, fragments wildlife corridors, and modifies the thermal and visual characteristics of the land. Even if future decommissioning of the site occurs, the complete removal of this roadway and full ecological recovery is uncertain. Roads of this type are known to persist for decades or longer unless aggressively removed and remediated.
- b) Gray Water Reservoir:  
The installation of a gray water reservoir on-site represents another long-lasting alteration to the native land surface and



subsurface hydrology. Although this reservoir is not expected to contain hazardous material, its presence will permanently change the physical structure of the land, introducing a new water body that may attract different species, alter drainage patterns, and introduce vector risks (e.g., mosquitoes).

Additionally, the reservoir may require impermeable linings or concrete berms, which would not naturally degrade over time. Until the reservoir is removed and the area fully rehabilitated, its presence will continue to exert an environmental and visual impact on the surrounding area.

c) Facility Footprint and Reactor Infrastructure:

The construction of reactor buildings, cooling facilities, control stations, fencing, security perimeters, parking areas, and other support structures will physically replace native soil and vegetation with concrete, steel, and other impervious surfaces. These structures will have a defined footprint, but their presence, even during decommissioning, will leave residual effects due to subsurface disturbance, possible contamination, and long-term changes to the soil profile.

d) Electrical Transmission Towers:

The transmission infrastructure associated with the project, while essential for delivering generated power to the Midpoint Substation and beyond, will also introduce above-ground vertical structures that alter visual sightlines, affect avian movement patterns, and require ongoing maintenance access. However, unlike roadways or reservoirs, transmission towers can typically be dismantled and removed entirely in a future restoration scenario. Therefore, while impactful during operation, they are considered reversible in the long term.

e) Security and Human Activity:

The introduction of full-time staff, operational lighting, vehicles, surveillance systems, and security fencing will further alter the sense of place of the property. Night lighting may affect nocturnal species, while fencing and noise may fragment or displace wildlife. These impacts, while not permanent in a structural sense, represent changes that compound the long-term footprint of the facility.

f) Cumulative Effect and Irreversibility

Taken together, the above elements represent a cumulative impact that is transformative in scope. From a historic baseline

of minimal human interference, the project will convert the property into a permanent industrial footprint. While some elements (like transmission towers) may be removed in the future, others—such as the paved roadway and the gray water reservoir—pose significant barriers to full ecological restoration. The road, in particular, introduces a durable surface that is costly and difficult to remove entirely. Its presence could alter drainage and vegetation patterns for generations.

- g) Because the surrounding landscape remains largely open and undeveloped, the visibility and ecological impact of this new infrastructure will also extend beyond the boundaries of the parcel itself. Wildlife that previously used the property as a corridor or habitat may no longer do so, and the sense of solitude or natural integrity experienced in the region will be permanently altered.

- h) **Conclusion**

In conclusion, while the Midpoint SMR Project #1 offers considerable long-term benefits in terms of clean energy generation and grid resilience, the transformation of this specific property from a historically untouched landscape to an industrial site is profound. The most irreversible impacts will stem not from the nuclear reactors themselves but from the supporting infrastructure, particularly the asphalt roadway and gray water reservoir. These features, by their very nature, will extend the project's environmental footprint for decades beyond decommissioning unless specifically targeted for removal and ecological restoration. As such, the cumulative impact of the project should be acknowledged as a permanent deviation from the site's past condition, with only partial reversibility in the foreseeable future.

## **20) Mitigation Measures (Site-Specific)**

- a) Include specific actions proposed to avoid, minimize, or offset impacts unique to the site.
- b) Site-Specific Mitigation Measures for the Midpoint SMR Project
- c) In recognition of the substantial and lasting changes that will result from the development of the Midpoint Small Modular Reactor (SMR) Project #1 on a historically undisturbed site, a range of site-specific mitigation measures will be implemented.

These measures aim not only to reduce the environmental footprint of the project during construction and operation, but also to lay a foundation for full or partial restoration upon eventual decommissioning. The mitigation strategy is guided by three principles: avoidance, minimization, and offsetting, with a special focus on long-term legacy planning.

i. Comprehensive Decommissioning Plan as the Cornerstone of Mitigation

The most impactful and forward-looking mitigation measure will be a binding, site-specific decommissioning and land restoration plan developed prior to final project licensing. This plan will serve as a contractual and procedural framework for the responsible dismantling of all facilities, infrastructure, and impervious surfaces after 40–60 years of operation.

- ii) Key elements of this plan will include:  
Complete dismantling and removal of all reactor modules, support buildings, and transmission infrastructure.
- iii) Demolition and extraction of asphalt roadway segments, with full subgrade remediation and regrading.
- iv) Excavation and removal of the gray water reservoir, including its liner, berms, and associated piping.
- v) Revegetation using locally sourced, native prairie grasses and seed mixes to restore ecological integrity.
- vi) Soil monitoring and stabilization during and after removal to prevent erosion and ensure surface hydrology is preserved.
- vii) Visual documentation of current land conditions, including a comprehensive set of high-resolution baseline photographs taken from fixed GPS-referenced locations around the site perimeter and interior. These images will serve as reference materials during final

restoration to guide landscape re-contouring and vegetation matching.

#### Pre-Development Ecological and Visual Documentation

- i) To assist future decommissioning efforts and serve as an environmental record, an extensive Pre-Development Site Survey will be conducted. This will include:
- ii) Aerial drone mapping to capture full topographic and vegetation profiles.
- iii) Wildlife inventories and migratory pathway documentation, to guide restoration and future compatibility.
- iv) Digital photographic cataloging of the site from multiple angles and seasons to reflect true baseline conditions.
- v) This dataset will be archived and stored with the Idaho State Historical Society, Jerome County, and the Nuclear Regulatory Commission for long-term accessibility.

#### Minimization of Roadway and Surface Disturbance

- i) Recognizing the enduring impact of asphalt roads, the project will incorporate several strategies to minimize their footprint and long-term ecological consequences:
- ii) Use of permeable, low-impact road surfacing alternatives (e.g., stabilized aggregate with natural binders) where feasible, particularly in areas not essential to reactor transport or emergency access.
- iii) Designing roads with curvilinear routing and native vegetation buffers, to visually blend with the landscape and reduce habitat fragmentation.
- iv) Commitment to a limited-width corridor, with strict controls on road widening or paving during the life of the project.

#### Reservoir Placement and Design Safeguards

- i) To offset the impact of the gray water reservoir:
- ii) The reservoir will be placed in a topographically discreet location to minimize visual intrusion and surface water disruption.

- iii) It will be lined with a removable, modular liner system to enable full extraction at the end of project life without groundwater contact.
- iv) Wildlife-exclusion fencing and avian protection measures (e.g., bird-safe netting) will be employed to prevent habitat disruption or hazardous interactions.

#### Habitat Compensation and Wildlife Corridors

- i) Although the property itself is not officially designated as critical habitat, the project will:
- ii) Establish a buffer zone around the perimeter where development will be limited and native vegetation preserved.
- iii) Design and maintain wildlife corridors through and around the site to maintain continuity of local migration patterns.
- iv) Work with local conservation groups and state biologists to identify offset lands elsewhere in the region that can be enhanced or protected as compensatory mitigation for any displaced ecological value.

#### Sustainable Operations and Environmental Monitoring

- i) Throughout the operational life of the project:
- ii) All non-critical lighting will be fully shielded and motion-activated, with dark-sky compliant fixtures to reduce light pollution.
- iii) An on-site Environmental Compliance Officer (ECO) will be appointed to conduct quarterly audits of stormwater systems, vegetation, noise levels, and emissions.
- iv) Cooling and water systems will be designed for maximum recycling and conservation, with gray water managed in a closed-loop cycle to reduce withdrawals and discharges.

## Emergency Environmental Recovery Protocol

- i) As part of site resilience planning, a fully developed Environmental Emergency Response Protocol will be prepared. In the event of accidental release, weather-driven damage, or other disruptions:
- ii) Pre-staged materials and trained personnel will be available for immediate containment and restoration.
- iii) The ECO and emergency response team will coordinate with the Jerome County Emergency Management Agency and the Idaho Department of Environmental Quality.

## Conclusion

While the Midpoint SMR Project will introduce unavoidable changes to a historically untouched landscape, the project's mitigation strategy is built on a foundation of foresight, accountability, and stewardship. By embedding a comprehensive decommissioning plan, investing in pre-development documentation, and designing every element with future reversibility in mind, the project offers a path to not only minimize cumulative environmental impacts, but to ultimately return the site—at least in part—to a condition consistent with its past.

This forward-thinking approach allows the project to deliver essential clean energy benefits while honoring the unique and enduring ecological values of the land on which it stands.

## Radiological Safety and Emergency Planning

- i) Radiation containment and shielding strategies: All SMR designs include passive safety systems, modular containment, and robust reactor vessel construction. These features are engineered to minimize radiation exposure risks. NRC design certification materials provide detailed technical specifications for these systems, ensuring compliance with federal safety standards.
- ii) Emergency Planning Zones (EPZs): EPZs for SMRs are significantly smaller than those for traditional reactors, typically ranging from 0.1 to 1 mile. This reduction is based on the lower risk profile of SMRs. Emergency notifications, evacuation plans, and coordination strategies must align with NRC's revised guidance for SMRs, ensuring public safety in the event of an incident.
- iii) Off-site response coordination: Collaboration with local emergency services (e.g., Jerome County), state agencies, and integration of response drills are critical for preparedness. This ensures seamless coordination during emergencies.
- iv) Accident consequence modeling: Conservative modeling using NRC-approved software like MACCS will be conducted to predict potential accident impacts. Research is required to develop scenarios based on design-basis accidents, ensuring robust analysis of potential risks.

## Nuclear Waste and Fuel Management

- i) Spent nuclear fuel storage: Dry cask storage is proposed for on-site management of spent nuclear fuel. This

- method is licensed through the NRC's Independent Spent Fuel Storage Installation (ISFSI) process, ensuring compliance with federal regulations.
- ii) Long-term management strategy: The document highlights gaps in the national strategy for nuclear waste management, such as the absence of a federal repository. SEDC's interim plan involves on-site storage for up to 60 years, providing a temporary solution while awaiting federal action.
  - iii) Transportation logistics and routing: Transportation of spent fuel will follow DOE/NRC-compliant routes. Research is required to map and analyze transportation routes, including identifying the nearest railheads to ensure safe and efficient logistics.

#### Accident and Seismic Analysis

- i) Design-basis event analysis: Credible design-basis events include earthquakes, station blackouts, and loss of coolant. The Scale SMR's passive systems are designed to respond effectively to these scenarios, ensuring safety and operational stability.
- ii) Beyond-design-basis event scenarios: Low-probability, high-consequence events, such as aircraft impacts, are addressed per NRC regulation 10 CFR 52. SMR's design features mitigate risks associated with these scenarios.
- iii) Probabilistic Risk Assessment (PRA): All new SMR Power Units submitted to the NRC demonstrate a core damage frequency below regulatory thresholds, ensuring compliance with safety standards.
- iv) Seismic stability of site and systems: Regional USGS seismic hazard data and geotechnical bore data are referenced to assess site stability. Research is required to finalize seismic analysis based on geotechnical investigations, ensuring the site can withstand seismic events.



#### Summary of Research Needs:

Radiological Safety: Develop accident modeling scenarios using NRC-approved software (e.g., MACCS).

- a) Nuclear Waste Management: Map and analyze spent fuel transportation routes and identify nearest railheads.
- b) Seismic Analysis: Conduct final seismic analysis based on geotechnical investigations.
- c) Cooling Water and Thermal Discharge in SMR Power Unit Reactors

#### SMR Power Reactors:

- a) Two to six Power Modules, each capable of producing approximately 60 to 200 megawatt electricity (MWe), for a total output of up to 600 MWe.
- b) These reactors are designed to be safer and more flexible compared to traditional large reactors.

#### Cooling System:

- a) The cooling system in most SMRs uses water as the primary coolant, which absorbs heat generated during the nuclear fission process.
- b) The design includes a passive safety system that allows the reactor to cool itself without the need for external power or operator intervention.

#### Thermal Discharge:

- a) Thermal discharge refers to the release of excess heat from the reactor into the environment, typically through cooling towers or water bodies.
- b) This process is crucial to maintain the operational efficiency of the reactor and to ensure that the temperature of the coolant remains within safe limits.

#### Environmental Considerations:

- a) The thermal discharge from the reactor must comply with environmental regulations to minimize impacts on local ecosystems.
- b) SMR designs include features to mitigate thermal pollution, ensuring that the increase in temperature in receiving waters is within acceptable limits.

#### Regulatory Framework:

- a) The operation of cooling systems and thermal discharge is heavily regulated by agencies such as the U.S. Nuclear Regulatory Commission (NRC) to ensure safety and environmental protection.
- b) SMR Power Units do utilize water for their cooling systems, but the quantity and consumption of water can vary based on several factors. Here's a detailed overview:

#### Water Usage in SMR Power Units

- a) Cooling Water Requirements:
- b) The various SMR Power Units are designed to use water as the primary coolant, which is essential for maintaining safe operating temperatures and efficient heat removal from the reactor core.
- c) The design aims to be efficient in its water usage, but the exact quantities depend on specific operational conditions and the cooling method employed.

#### Type of Cooling System:

- a) SMR reactors typically use a closed-loop cooling system, which recirculates water to minimize the amount of water that needs to be sourced from external bodies.
- b) The reactors can use different cooling methods, including:

Cooling Towers: These allow for evaporative cooling, which can lead to some water loss through evaporation.

#### Water Consumption:

- a) While SMR Power Units do consume water for cooling, the design aims to minimize water consumption relative to traditional large reactors. This is achieved by optimizing the cooling process.
- b) The exact quantity of water consumed can vary significantly based on factors such as:
  - i) The ambient temperature and humidity.
  - ii) The operational load of the reactor.
  - iii) The specific cooling technology implemented.

#### Environmental Impact:

- a) The design and operation of the SMR Power Units take into account environmental impacts, including water usage and thermal discharge.
- b) Regulatory frameworks are in place to ensure that water use does not adversely affect local ecosystems.

#### Efficiency and Sustainability:

- a) SMR companies emphasize sustainability in its designs, and the efficiency of water usage is a key consideration. The goal is to balance operational needs with environmental stewardship.

#### Conclusion

In summary, while SMR Power Units do utilize water for cooling, their design aims to optimize water use and minimize environmental impact.

#### Air Quality and Greenhouse Gases Resulting from the Use of Small Modular Reactor Units

- a) Construction-Phase Emissions
- b) Overview: The construction of nuclear reactors, including various SMR Power Units, involves various emissions related to the manufacturing and transportation of materials, equipment installation, and operational activities at the construction site.

- c) Key Points:
- d) Emissions during the construction phase are typically lower than those for fossil fuel power plants, as the operational phase of nuclear reactors has minimal direct emissions.
- e) Lifecycle assessments often consider construction emissions to compare the overall environmental impact of different energy sources.
- f) Standby Diesel Generator Emissions
- g) Function: Standby diesel generators are used in nuclear plants to provide backup power for critical systems in case of a power outage.
- h) Emissions Concerns:
- i) Diesel generators contribute to greenhouse gas emissions and can impact local air quality when operated.
- j) The emissions from these generators are relatively small compared to the overall emissions from fossil fuel power plants, but are nonetheless a factor that needs consideration in comprehensive environmental assessments.
- k) Most SMR designs employ designs that minimize reliance on diesel generators, focusing on passive safety features that reduce the need for active cooling systems during emergencies.
- l) Comparative Lifecycle GHG Benefits
- m) Quantitative Analysis:
- n) The SMR Power Unit design allows for a significant reduction in GHG emissions compared to natural gas plants of similar output.
- o) From two to six Power Modules, each capable of producing approximately 60 to 200 megawatts electric (MWe), for a total output of up to 600 MWe, potentially displacing considerable CO<sub>2</sub> emissions.
- p) It is estimated that a SMR configuration of Power Units could reduce CO<sub>2</sub> emissions by approximately eight million tons per year compared to coal plants, equivalent to removing about 1.7 million cars off the road annually.
- q) Lifecycle GHG Emissions:
- r) Lifecycle assessments generally show that nuclear power, including small modular reactors, has significantly lower lifecycle GHG emissions when compared to natural gas plants.

- s) The GHG emissions from nuclear plants are often less than half of those from gas plants when normalized to energy output (gigawatt-hours).

## Conclusion

SMR Power Units present a compelling option for reducing greenhouse gas emissions and improving air quality compared to traditional fossil fuel-based power generation. While construction and standby diesel generator emissions are factors to consider, the overall lifecycle benefits highlight the potential of nuclear technology in addressing climate change.

## Cultural Resources and Tribal Interests

- a) Sawtooth Energy & Development Corporation has recently sent letters to both the Tribal Chairmen of the Shoshone-Bannock Tribes of the Fort Hall Reservation and the Shoshone-Paiute Tribes of the Duck Valley Reservation. The letters invite the Tribal Chairman and/or their designees to visit the proposed site where the Midpoint SMR Project #1 is to be constructed, in late July 2025 to inspect the site for possible Indian Burial Grounds, Indian camping sites or other remnants that they may find as it relates to their Indian heritage.

To date, only the Bannock-Paiute Chairman has responded to the invitation. During their planned visit, one official from Sawtooth Energy, including its Chairman, B. Roy Prescott, was available to host the visit.

- b) The same type of letters were sent out from the Lava Ridge Windmill project (a project that contains the exact same ground as the property where Sawtooth Energy is attempting to construct its Midpoint SMR Project #1 and the Tribal Chairmen did not respond to the invitation. On their own, the Lava Ridge Windmill project, through observation and research, found that the desert property being considered for development did not contain any Indian Burial Grounds, Indian camping sites, or other remnants related to Indian heritage.
- c) Likewise, regardless of whether the Indian Chiefs respond to the invitations sent by Sawtooth Energy, the corporation will still

conduct an investigation of the property to determine if Indian relics or burial sites exist on the property. Even if something as small as an Indian arrowhead is found on the property, both Indian tribes would be notified, and the arrowhead would be turned over to one of the two tribes.

See copies of the letters sent to the Tribal Chiefs in the Appendix section of the DEIS as Exhibits A and B..

Cumulative Impacts:

- a) Overlap with the Lava Ridge Wind Project.
- b) In December of 2024, a Final Environmental Impact Statement was placed on Record for the Lava Ridge Wind Project by the BLM of the Department of the Interior. That FEIS covered approximately 185,000 acres of BLM ground that also included the 320 acres of land upon which Sawtooth Energy chose to construct its Nuclear Power Plant (Midpoint Small Modular Reactor Project #1). The FEIS was over 8,500 pages long and cost the BLM in excess of \$6,500,000.00. It was extensive, to say the least.
- c) In an effort not to cover the same area and ground twice in less than two years, Sawtooth Energy & Development Corporation has and will continue to site the findings of that FEIS. The Lava FEIS clearly identified known power lines in the area, substations, and adjacent land uses. None of those things were found to affect Lava Ridge and their project, and likewise, those items do not appear to affect the Sawtooth Energy nuclear project. The only difference between the Lava Ridge Project and the Sawtooth Energy & Development Corporation projects is that Lava Ridge is a windmill project, and Sawtooth's project is a nuclear power plant project.

So, if Sawtooth's project is nuclear, are there any negative effects from it as it relates to Cumulative Radiological considerations? The fact is that cumulative exposure is negligible due to the containment process that will be built into the construction of the reactor campus and the way in which SMRs have been designed and built.

## **X) DECOMMISSIONING AND RECLAMATION PROCEDURE**

### **a) Decommissioning and Site Restoration**

#### **Facility Shutdown and Equipment Clearance**

- b) All nuclear reactor modules and associated turbine generator systems will be permanently shut down and defueled.
- c) Spent nuclear fuel will be transported off-site to an approved federal or commercial disposal/repository facility in accordance with Nuclear Regulatory Commission (NRC) regulations.
- d) All salvageable reactor components, turbines, pumps, instrumentation, and facility furnishings will be dismantled, removed, and either recycled or disposed of in accordance with state and federal law.
- e) All auxiliary and support buildings will be disassembled and removed from the site.
- f) Wastewater Treatment Area Decommissioning
- g) All liquids and residual sludge in the wastewater storage and treatment area will be removed, characterized, and disposed of in accordance with applicable EPA and DEQ guidelines.
- h) Tanks, liners, piping, and associated infrastructure will be dismantled and hauled off-site.
- i) The area will be tested for residual contamination and, if necessary, remediated to meet BLM and state environmental standards.

#### **Subsurface Infrastructure Removal**

- a) Foundations, buried tanks, below-grade vaults, and conduit will be excavated and removed.
- b) Reactor containment basins or storage tanks will be collapsed inward or removed, as determined to be feasible during the engineering assessment.
- c) Excavations will be backfilled with clean, uncontaminated native soil sourced locally and approved by the BLM.
- d) Surface Regrading and Reseeding
- e) All disturbed areas will be contoured to match the surrounding topography and natural drainage patterns.

- f) Soil will be stabilized with native topsoil and reseeded using a BLM-approved native prairie grass seed mix suitable for the climate and soil conditions of Jerome County, Idaho.
- g) Post-seeding maintenance (erosion control, weed management) will be conducted for a minimum of 3 years to ensure successful reestablishment.

#### Roadway Preservation

- a) The primary access road into the site may remain intact for continued rancher or public use, subject to BLM approval.
- b) All other internal roadways will be removed and regraded as part of the restoration process.

#### COMPLIANCE MONITORING AND REPORTING

- a) A final Decommissioning and Reclamation Plan (DRP) will be submitted to the BLM and NRC for approval not less than five years prior to lease expiration.
- b) Environmental and structural assessments will be documented and shared with appropriate regulatory agencies during each decommissioning phase.
- c) BLM and state-designated monitors will be granted access to verify compliance during all reclamation activities.

#### d) FUNDING ASSURANCE

- e) SEDC shall maintain a financial assurance instrument (e.g., surety bond or decommissioning trust fund) sufficient to cover all decommissioning, dismantlement, and reclamation costs, to be updated every ten years or as required by the BLM.

#### CONCLUSION

- a) The Sawtooth Energy & Development Corporation is fully committed to restoring the Midpoint SMR Project #1 site to its predevelopment prairie condition at the end of the project's useful life. This commitment ensures continued stewardship of public lands in harmony with the BLM's mission.



### Physical Security and Safeguards

- a) Sawtooth Energy & Development Corporation will take all necessary precautions to assure the safety of the Midpoint Small Modular Reactor Project #1.
- b) Sawtooth will construct a perimeter security fence nine (9) feet tall around the entire reactor campus. Each shift (three shifts per day, seven days a week) will have a trained security guard at the nuclear campus to handle any and all possible security violations from either facility staff or non-staff visitors who have undergone proper vetting as per the company's access control policy. The nuclear campus will not be open to the general public.
- c) Regarding threat assessment and intrusion prevention, the facility will comply with the NRC Design Basis Threat (DBT) at all times. This policy and many of the details are Safeguards Information (SGI) and are not disclosed publicly.

### Public Health and Safety – SMR Power Units Radiation Exposure

- a) Overview of SMR Technology and Safety Design
- b) Small Modular Reactor (SMR) design based on pressurized light water reactor (PWR) technology is very safe. Two SMR Power Modules, each capable of producing approximately 300 megawatts electric (MWe), for a total output of up to 600 MWe, are designed with passive safety features that do not rely on external power or human intervention for safe shutdown and cooling.
  - i) Radiation Exposure and Containment
  - ii) Normal Operations: Radiological exposure to plant workers and the public is expected to be significantly below U.S. Nuclear Regulatory Commission (NRC) regulatory limits (10 CFR Part 20). Dose rates at the site boundary are projected to be less than 0.01 millisieverts/year (1 mrem/year)—less than the dose from a single dental X-ray.
  - iii) Shielding: Each SMR module is inside a robust containment vessel and reactor building, significantly reducing radiation pathways to the environment.
  - iv) Accident Scenarios: In the event of a beyond-design-basis event, such as a station blackout, the passive cooling systems

safely remove decay heat without the need for pumps, external power, or operator action.

- c) Public Health Summary
- d) SMR Power Units are inherently safe, with negligible radioactive release under normal operations and robust barriers against accidents. It offers a very low radiological public health risk on the reactor campus and in nearby communities.

#### Alternatives Analysis – Technology and Site Selection

- a) Technologies Considered
- b) Natural Gas Combined-Cycle Turbines (NGCC):

Capital Cost: ~\$1,000/kW (much cheaper than nuclear)

CO<sub>2</sub> Emissions: 800–1,200 lbs./MWh

Fuel Price Volatility: High

Air Permitting Required: Yes (criteria pollutants, GHG)

Operational Life: 30–40 years

SMR Power Units:

Capital Cost: ~\$9,000/kW (higher upfront cost)

Zero GHG Emissions: Yes

Fuel Cost Stability: Yes (uranium contracts are long-term)

No air permits required.

Operational Life: 60+ years

- a) Why SMR Power Units?
- b) Carbon-free power that supports Idaho’s decarbonization goals.
- c) Energy security and base-load reliability in a high-renewable future.
- d) Supports federal clean hydrogen and data center partnerships.
- e) Lower long-term operating costs and fewer workforce fluctuations.

### Site Selection Justification

- a) The site is within 2 3/4 miles of the Midpoint Substation, a major intertie between Idaho Power and PacifiCorp.
- b) Location allows direct interconnection to the Western Interconnection, enabling power wheeling to Nevada and California.
- c) Minimal land disturbance (40 acres in Section 17), already assessed under Lava Ridge Wind DEIS.

### Land Use Plan Conformance – BLM RMP Status

- a) The proposed site lies within BLM-administered land governed by the Twin Falls Resource Management Plan (RMP).
- b) Relevant Land Use Designations
- c) Section 17 is designated for multiple-use management, including energy development.
- d) The 2009 and 2023 RMP amendments promote renewable and clean energy projects under FLPMA's multiple-use and sustained-yield mandates.
- e) Conformance Statement
- f) The Midpoint SMR Project conforms with the Twin Falls BLM RMP, particularly the energy objectives encouraging renewable or low-emission energy use.
- g) No special designations (WSA, ACEC, VRM Class I/II) affect this parcel.
- h) The project will follow SF-299 siting and NEPA compliance through the BLM permitting process.

a) Public Involvement and Scoping

b) Planned Public Hearings (July 2025)

i) July 21, 25, 28 – Jerome, ID

ii) July 30 – Shoshone, ID

Location: Jack Nelson Conference Room (Jerome);  
Lincoln County Fairgrounds (Shoshone)

### Scoping and Documentation Plan

Public comment forms will be gathered:  
Support/opposition to the SMR project  
Comments on environmental concerns  
Feedback on public health, water use, land value, and  
visual resources

Attendees will sign in, and meeting minutes will be kept.

#### Results Documentation

A summary of comments and themes will be included in  
the Appendix of the DEIS. See Exhibit C of the DEIS  
Appendix.

Comments will be analyzed for:

Substantive issues requiring response in the Final EIS

Local values or cultural/socioeconomic concerns

#### Agency and Tribal Coordination

#### Key Agencies Involved

Agency	Role
NRC (Nuclear Regulatory Commission)	Licensing of SMR reactors under 10 CFR Part 52
DOE (Department of Energy)	Technical support, grant administration via OCED
SHPO (State Historic Preservation Office)	Section 106 compliance for cultural resources
USFWS (U.S. Fish & Wildlife Service)	ESA Section 7 consultation, migratory bird protection
BLM (Bureau of Land Management)	Land use authorization under SF-299
IDEQ (Idaho Department of Environmental Quality)	State water quality certification, air oversight

#### Tribal Coordination

- a) Letters of invitation and consultation will be or have  
been sent to:

- b) Shoshone-Bannock Tribes
- c) Shoshone-Paiute Tribes
- d) Documentation
- e) Copies of consultation letters and agency coordination will be located in the Appendix of the DEIS.

## Environmental Commitments and Mitigation

- |    |                        |                                                                                                                                                                      |
|----|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) | Summary of Commitments |                                                                                                                                                                      |
| b) | Resource               | Commitment/Mitigation                                                                                                                                                |
| c) | Visual Resources       | Building profile kept low; desert color scheme and no night lighting                                                                                                 |
| d) | Biological Resources   | Avoid construction during nesting season; fencing to deter wildlife                                                                                                  |
| e) | Water Resources        | Closed-loop cooling; wastewater is stored and not discharged                                                                                                         |
| f) | Cultural Resources     | Monitoring during ground-disturbing activities; SHPO clearance obtained                                                                                              |
| g) | Transportation         | Worker carpooling encouraged; construction traffic plan implemented<br><br>Full site decommissioning plan at the end of the 60-year lease; prairie grass restoration |

## Implementation and Monitoring

SEDC will develop an Environmental Compliance Plan enforced during construction and operations.

Regular audits and compliance reports will be submitted to BLM and NRC.

Restoration will include the removal of the reactor, deconstruction of the concrete, and backfilling of the pool basin.

## Conclusion

The Midpoint SMR Project, when considered with other past, present, and reasonably foreseeable future actions, would not result in significant adverse cumulative impacts. Due to the Project's limited footprint, strategic siting adjacent to existing infrastructure, and implementation of mitigation measures, cumulative impacts are anticipated to be minor, localized, and not significant under NEPA thresholds.

## **XI) Glossary of Terms Utilized In This Draft Environmental Impact Statement**

- A) Small Modular Reactor: Small Modular Reactors (SMRs) are advanced nuclear reactors that are smaller in size and capacity compared to traditional nuclear power plants. They are designed for modular construction, meaning their components can be manufactured in a factory and then assembled at the power plant site. This allows for faster construction and potentially lower costs.
- B) Benefits of SMRs:
  - 1) Cost:
    - a) Faster Construction: Modular design allows for quicker construction compared to traditional plants.
    - b) Flexibility:
    - c) Grid Stability: SMRs can be used to provide baseload power or to supplement renewable energy sources.
    - d) Increased Safety: Passive safety systems enhance safety and reliability.
  - 2) Challenges of SMRs:
  - 3) Components are factory-fabricated and then shipped to the site for assembly, reducing construction time and costs. However, concerns about nuclear safety, quantities of nuclear fuel consumed, and nuclear waste disposal can impact public acceptance of SMRs.
- C) Key Features of SMRs:
  - D) Lower Capital Costs: Factory fabrication and streamlined construction processes can reduce overall costs.
  - E) Siting Flexibility: SMRs can be deployed in areas where larger plants would not be feasible.
  - F) Small Size: SMRs are typically defined as having a power output of up to 200 megawatts (MWe), much smaller than the 1,000 MWe or more of traditional nuclear power plants.

- 1) SMRs can be deployed in smaller communities, remote areas, or as additions to existing power grids.
- 2) SMRs can be used for electricity generation, heating, desalination, and other industrial processes.
- 3) SMRs may require new or updated regulations to ensure safety and address specific design features.

SMRs often incorporate passive safety systems that can automatically shut down the reactor and cool it down in the event of an emergency, [according to the International Atomic Energy Agency \(IAEA\)](#).

### 3) Versatile Applications:

While SMRs are designed to be more cost-effective than traditional plants, the initial costs of developing and building the first SMRs can be substantial.

Midpoint Small Modular Reactor Project #1: This is the name of the project identified by Sawtooth Energy & Development Corporation (sponsoring entity) for the construction and operation of a Small Modular Nuclear Reactor to be located approximately 14 1/2 miles northeast of Jerome, Jerome County, Idaho on Section 17 (N 1/2) (320 acres), Township 07 South, Range 18 East, Jerome County, Idaho. This legal description encompasses 320 acres of BLM administered property. The Project Manager for this proposed Midpoint Small Modular Reactor Project #1 is Louis Adamson from Pocatello, Idaho. Mr. Adamson's telephone number is 877-601-6100, and his email address is [ladamson@sedc.co](mailto:ladamson@sedc.co). The Midpoint Small Modular Reactor Project #1 is identified as Midpoint, as it is located just 2 3/4 miles east of the Idaho Power substation known as Midpoint Substation, the largest power distribution site in the State of Idaho. From this substation, power is distributed throughout Idaho and all western states, including California.

### 4) BENEFITS

The SMR Advantage---SMRs provide all the benefits of traditional nuclear energy at a lower cost and with a smaller geographic footprint.

24/7 Power Generation---SMRs provide always-on, carbon-free baseload energy and are the only nuclear technology approved for both on and off-grid operation.

Flexible Plant Siting---Their small size and site boundary emergency planning zone (EPZ) make SMR plants ideal for locations with space constraints.

36-Month Construction---SMRs are factory-built, and the plant design includes many off-the-shelf components, reducing construction timelines and cost.

Scalable Design---Modules can be added incrementally, with the first module generating electricity while additional modules are being installed.

Walk-Away Safe---SMRs can shut down and self-cool indefinitely with no operator action, no AC or DC power, and no additional water. SAFEST SMRs IN AMERICA Resilient to Extreme Events---SMR plant design is capable of withstanding severe weather, aircraft impact, electromagnetic pulse, and cyber-attacks.

- 5) Sawtooth Energy & Development Corporation: This is a relatively young Idaho Business Corporation formed to develop potential energy opportunities in the State of Idaho. The company has a five-person Board of Directors. The address for the company is 1110 Yellowstone Avenue, Box 131, Pocatello, Idaho 83201. The current President and CEO of the corporation is B. Roy Prescott from Jerome, Idaho. Mr. Prescott's telephone number is 208-280-2163, and his email address is [rprescott@sedc.co](mailto:rprescott@sedc.co).
- 6) Bureau of Land Management (BLM): The Bureau of Land Management is an agency within the United States Department of the Interior responsible for administering U.S. federal lands. Headquartered in Washington, D.C., the BLM oversees more than 247.3 million acres of land, or one-eighth of the United States' total landmass. No part of the project described in this DEIS is BLM oversight property.
- 7) Jerome County, Idaho: A county in South-Central Idaho. The county seat is the city of Jerome, Idaho, with a population of 13,135. The city of Jerome is located approximately 14 1/2 miles southwest of the proposed Midpoint Small Modular Reactor Project #1. Much of the north boundary of Jerome County, Idaho, is made up of dry, desert, and uninhabited land that is primarily administered by either the Bureau of Land Management or the State of Idaho. It is proposed that the Midpoint Small Modular Reactor Project #1 be constructed on Section 17 and part of the land managed in the area by BLM.

## **XII) References**

- A) Bureau of Land Management (BLM). 2024. Final Environmental Impact Statement for the Lava Ridge Wind Project. 5.2 Summary Table of Environmental Impacts and Mitigation
- B) Reference: Bureau of Land Management (BLM). 2024. Final Environmental Impact Statement for the Lava Ridge Wind Project. Final Record of Decision was in September 2024, U.S. Department of the Interior, Twin Falls District Office, Idaho.



- 1) U.S. Department of the Interior, Twin Falls District Office
- 2) Idaho Department of Environmental Quality (IDEQ). 2024. Groundwater Quality Technical Report: Jerome County Region. Boise, Idaho.
- 3) U.S. Census Bureau. 2025. Jerome County, Idaho: Community and Economic Profiles. Accessed 2025 at [www.census.gov](http://www.census.gov).
- 4) U.S. Environmental Protection Agency (EPA). 2024. Envirofacts Database Search Results: Jerome County, Idaho. Accessed 2024 at [www.epa.gov/enviro](http://www.epa.gov/enviro).
- 5) U.S. Nuclear Regulatory Commission (NRC). 2024. Small Modular Reactor (SMR) Policy Statements and Licensing Requirements. Accessed 2024 at [www.nrc.gov/reactors/new-reactors/smr.html](http://www.nrc.gov/reactors/new-reactors/smr.html).

### **XIII) Environmental Commitments**

#### **Introduction**

- A) This chapter summarizes the environmental commitments that Sawtooth Energy & Development Corporation will implement to avoid, minimize, or mitigate adverse environmental impacts resulting from the construction and operation of the Midpoint Small Modular Reactor (SMR) Project #1.
- B) These commitments are based on best management practices (BMPs), regulatory requirements, and mitigation measures identified in this Environmental Impact Statement (EIS).
- C) The following table outlines the specific resource areas, potential impacts, mitigation measures, and the party responsible for implementation.
- D) Comprehensive Environmental Commitments Table – Midpoint SMR Project #1

This table presents a full and final compilation of all environmental protection measures and mitigation strategies committed to by Sawtooth Energy & Development Corporation (SEDC) for the Midpoint Small Modular Reactor Project #1.

Resource Area	Environmental Commitment / Mitigation Measure	Responsible Party	Timing / Trigger
Air Quality & Dust Control	Install real-time anemometers and dust monitors at key work zones. Use site wind rose data to inform dust control, showing	SEDC Construction Manager	During all earthwork and wind-sensitive operations

prevailing winds from the west or southwest. Suspend excavation and dust-generating activity when sustained winds exceed 25 mph. Apply water to unpaved roads and storage areas.

Soils & Geology / Seismic

Conduct deep geotechnical borings to characterize underlying basalt and sedimentary rock layers. Develop a subsurface stratigraphic model to guide foundation design. Apply USGS seismic hazard mapping and engineer all structures to meet or exceed IBC seismic Category D. Monitor ground vibration during blasting; cease activity if motion exceeds 0.2g.

Geotechnical Engineering Team

Prior to final design, during excavation and blasting

Water Resources – Wastewater Management

Design and operate lined containment basins for sanitary and process wastewater. Treat wastewater using modular systems compliant with EPA and Idaho DEQ requirements.

Environmental Compliance Officer

During construction and facility operations

	Discharge only under NPDES permit conditions. Conduct regular testing to verify the integrity of containment and the quality of discharge.		
Water Resources – Construction Management	Implement an erosion and sediment control plan including site fencing, stormwater diversion, and stabilized entry points. Track groundwater withdrawal for dust suppression or utility use and prevent overdraw of local aquifers.	Construction Manager & Environmental Officer	During construction phases
Nuclear Fuel Management	Prepare and implement a Nuclear Fuel Handling and Storage Plan prior to reactor loading. All deliveries will be made in secure, shielded vehicles under federal supervision. Fuel assemblies are stored in reinforced, access-controlled vaults until loaded into the reactor. Maintain inventory tracking, personnel clearance protocols, and radiation safety zones.	SEDC + Operating Partner	Before the first core delivery and during all future refueling cycles

Vegetation and Wetlands	Avoid all known wetland areas during construction, flag and buffer sensitive plant communities prior to site disturbance. Re-vegetate disturbed areas using native, drought-tolerant species approved by local agencies.	Environmental Compliance Officer	Prior to, during, and post-construction
Wildlife and Habitat	Implement seasonal restrictions on cleaning to protect nesting birds and migrating wildlife. Conduct pre-construction biological surveys and install exclusion fencing where needed to prevent wildlife ingress.	Biological Survey Team	Pre-construction and during active construction
Cultural Resources	Conduct Class III cultural resource surveys for the project footprint. Halt all ground-disturbing activities if unanticipated archaeological materials are encountered and consult with SHPO and affected Tribes.	Cultural Resource Consultant	Before site disturbance and if any cultural resources are found
Land Use and Recreation	Coordinate with adjacent land users and BLM grazing leaseholders to	SEDC Stakeholder Liaison	Throughout construction

	minimize disruption. Install temporary fencing to separate construction from ongoing agricultural and recreational access routes.		
Public and Occupational Health and Safety	Establish site security per NRC requirements, including access control, surveillance, and incident response. Enforce OSHA construction standards and require PPE, job hazard analysis, and safety training.	Site Safety Officer	During all project phases
Waste Management	Develop a Waste Management Plan covering construction debris, sanitary waste, and non-radiological industrial waste. Classify, store, and dispose of all waste in accordance with local, state, and federal regulations.	Environmental Compliance Officer	Throughout construction and operations
Transportation and Access	Coordinate with Idaho DOT and county agencies on road upgrades and haul routes. Limit deliveries to designated hours; use flaggers and pilot vehicles for	Logistics Coordinator	During equipment delivery and peak construction

	oversized loads. Install signage and access controls.		
Noise and Aesthetics	Use sound-mitigating construction equipment and limit high-noise activities to daylight hours: design structures and screening to reduce visual contrast with the surrounding landscape.	SEDC Environmental Manager	During construction and facility design
Emergency Preparedness and Response	Develop and maintain an Emergency Response Plan in coordination with local emergency services and state agencies. Conduct annual drills for radiation, fire, and natural hazard scenarios. Install early-warning systems and ensure off-site communication reliability.	SEDC Safety and Compliance Team	Prior to operations and updated annually
Monitoring and Adaptive Management	Implement a long-term environmental monitoring program for air, water, noise, and wildlife. Review data quarterly and adjust mitigation strategies as necessary to ensure	Environmental Monitoring Contractor	Throughout the construction and operation phases

	compliance and minimize impact.		
Socioeconomics and Environmental Justice	Engage with local communities regarding job opportunities, housing impacts, and public health. Ensure fair distribution of project benefits and avoid disproportionate burdens to disadvantaged populations.	SEDC Community Outreach Coordinator	Prior to and during construction and operation
Tribal and Government-to-Government Consultation	Maintain ongoing consultation with affected Tribes regarding cultural resources, access rights, and environmental protection—document coordination under Section 106 and Executive Order 13175.	SEDC Tribal Liaison	Initiated pre-permitting and maintained throughout the project lifecycle

#### E) Monitoring and Reporting

Sawtooth Energy will be responsible for implementing and maintaining these environmental commitments during all phases of the project.

Construction contractors will be contractually obligated to comply with relevant mitigation measures.

Regular environmental compliance monitoring and reporting will be conducted, and adaptive management strategies will be employed if unforeseen impacts occur.

## **XIV) Appendices**

- A) Letter to Shoshone-Bannock Tribal Chairman
- B) Letter to Shoshone-Paiute Tribal Chairman

C) Survey Results from the four (4) Public Hearings conducted on this matter consistent with NEPA's requirement for a hard look at potential environmental consequences.

D) Information regarding the new 285-mile, 500-kilovolt (kV) electric transmission line in Jerome County, Idaho, called the Southwest Intertie Project-North. This new transmission line is set for completion by mid-2028 to early-2029.

E) Commitment to Supplemental Analysis

SEDC affirms that all relevant environmental resource areas will be independently assessed and updated as necessary to address the unique nature of SMR development. Where Lava Ridge FEIS findings are cited, SEDC will clarify the applicability and ensure that all analysis remains consistent with NEPA's requirement for a thorough examination of potential environmental consequences.

F) Lava Ridge Wind Project Final Environmental Impact Statement

#### Executive Summary

#### EXECUTIVE SUMMARY

Magic Valley Energy, LLC (MVE), has for a right-of-way (ROW) grant to construct, operate and maintain, and decommission the Lava Ridge Wind Project (the project), a wind energy facility and ancillary facilities primarily on Bureau of Land Management (BLM) public lands in Jerome, Lincoln, and Minidoka Counties, Idaho (Exhibit D of the Appendix). The project would be located approximately 25 miles northeast of Twin Falls, Idaho, in the area managed by the BLM Shoshone Field Office (SFO). The project would consist of up to 400 wind turbines and associated infrastructure, and a 500-kilovolt (kV) generation intertie transmission line that would interconnect at Idaho Power's existing Midpoint Substation or at a new substation along the permitted Southwest Intertie Project (SWIP) northern portion (SWIP-North) 500-kV transmission line. MVE submitted their application and a preliminary plan of development (POD) in February 2020. Through coordination with the BLM and cooperating agencies, MVE revised their POD and resubmitted it to the BLM in December 2023 (MVE 2023) (EIS Appendix).



The project's environmental impact statement (EIS), prepared under the National Environmental Policy Act of 1969 (NEPA, 42 United States Code [USC] Section 4321, et seq., analyzes and discloses the potential environmental impacts of MVE's proposed project and alternatives for BLM decision making. The Fiscal Responsibility Act of 2023 (Public Law No. 118-5, Section 321(e)(1)(B), 137 Stat. 10 and 41-42) amended NEPA by requiring that EISs not exceed 150 pages, excluding citations or appendices, except for proposed agency actions of "extraordinary complexity" (42 USC 4336a(e)(1)(A)-(B)). Although this new statutory requirement was enacted after the public comment period for the draft EIS closed, the amendments did not offer any exceptions or waivers to the mandatory page limits.

Consequently, the BLM has determined that the size, scope, and scale of the proposed agency action is of "extraordinary complexity" and has reorganized the final EIS to meet the 300-page limit mandated by the statute. In doing so, the BLM focused the final EIS on resources and issues that would be significantly affected by the preferred alternative pursuant to 40 Code of Federal Regulations 1502.1. Among other things, the resources and issues that were analyzed in detail in the draft EIS, which the BLM concluded were either not significant or could be mitigated to less than significant, were moved to EIS Appendix 15.

"The BLM is the lead agency for the EIS. Seven government entities are participating as cooperating agencies: National Park Service, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, State of Idaho, Jerome County, and Lincoln County. and Minidoka County.

#### Purpose and Need.

The BLM's purpose is to respond to MVF's application for a ROW grant to construct, operate and maintain, and decommission a wind energy facility on public lands in compliance with the Federal Land Policy and Management Act (FLPMA), BLM ROW regulations, and other applicable federal laws and policies (detailed in EIS Appendix 2). The need for this action arises from FLPMA, which requires the BLM to manage public lands for multiple use and sustained yield and authorizes the BLM to issue ROW grants on public lands for systems for generation, transmission, and

distribution of electric energy (FLPMA Title V). The BLM will review the Proposed Action and other alternatives, and decide whether to approve, approve with modifications, or deny MVE's application. It may also include any terms, conditions, and stipulations it determines to be in the public interest.

## Lava Ridge Wind Project Final Environmental Impact Statement

### Executive Summary

#### Decision to be Made.

The EIS provides the information and environmental analysis necessary to inform the BLM's Authorized Officer and the public about the potential environmental impacts from the project.

The BLM decision to be made will include.

whether to grant, grant with modification, or deny a ROW to construct, operate, maintain, and decommission the proposed wind energy facility on public lands; • the most appropriate location for the project on public lands (if a ROW is granted); and the terms and conditions (stipulations) for the construction, operation, maintenance, and decommissioning of the wind energy facility on public lands that should be applied to the ROW, if granted.

#### Proposed Action and Alternatives

Internal and external scoping identified issues to be analyzed in the EIS, and a range of alternatives was developed to address those issues. The BLM developed a reasonable range of alternative, and alternatives were carried forward for detailed analysis if they 1) met the BLM's purpose and need, 2) were technically and economically feasible, 3) addressed the substantive issues identified in scoping, 4) reduced potential adverse environmental effects or addressed resource conflicts when compared to the Proposed Action, and 5) were consistent with management objectives outlined in BLM (1986), as amended. Alternatives were developed using subsets of the Proposed Action siting corridors.

G) Map of the project location in relation to the location of the Midpoint Substation to the west of the proposed project site. Please notice the N ½ of Section 17, Township 07 South, Range 18 East in Jerome County, Idaho.



Map of Midpoint Substation in relation to where the Midpoint SMR Project #1 is located. Note Idaho State Highway 93 is to the far left of this Exhibit (west side of map) which is the main highway to Twin Falls, Idaho to the south (approximately 20 miles), Shoshone, Idaho to the north (approximately 9 miles), and past Shoshone to the north,

## H) Seismic Hazards and Geotechnical Considerations – Lava Ridge Wind Project

This appendix summarizes the seismic hazard analysis and geotechnical considerations addressed in the Lava Ridge Wind Project Final Environmental Impact Statement (FEIS). It compiles direct references from multiple volumes of the FEIS, including Volume 1, the Plan of Development (POD), and Appendix C1 – Hazardous Materials and Safety. The focus is on regional seismicity, design compliance, and mitigation measures relevant to wind turbine and infrastructure safety.

### Regional Seismicity and Fault Zones

According to the Lava Ridge Wind Project Final EIS Volume 1:

“The project area is located in a region characterized as having low to moderate seismic hazard, according to U.S. Geological Survey (USGS) seismic hazard maps.”

(Lava Ridge Wind Project FEIS, Vol. 1)

While the project area does not contain active surface faulting, the FEIS notes: “Although no active fault lines are known to traverse the project site, the area remains susceptible to ground shaking from regional seismic events.”

(Lava Ridge FEIS, Vol. 1)

### Plan of Development – Seismic Design Commitments

The Plan of Development for the Lava Ridge Wind Project outlines the applicant's responsibilities regarding seismic safety:

“No active faults are located within the project area boundaries. However, all structural designs will comply with current seismic building code requirements, as outlined by the International Building Code (IBC) and applicable Idaho state codes.”

Plan of Development, Magic Valley Energy, 2023

Further, the POD confirms:

“Site-specific geotechnical and seismic investigations will be performed before final design and construction of turbine foundations, access roads, and substations.”

(POD, Section 2.6)

### Geohazards and Structural Safety

Appendix of the FEIS, which addresses hazardous materials and safety, expands upon seismic risk management:

“The project design considers potential geohazards such as earthquakes and ground settlement, including design tolerances for wind turbine towers in response to ground shaking.”

Regarding structural integrity during seismic events:

“Seismic loading scenarios consistent with regional hazard forecasts... including a minimum magnitude event of 6.0 on the Richter scale within 50 miles of the project.”

(Appendix C1)

#### Summary

The FEIS does not include field-specific seismic test results (e.g., borehole logging, ground shear wave velocities) but outlines a clear framework for future investigations and compliance. The project proponent has committed to seismic safety through:

Regional seismic hazard assessment using USGS data

IBC-compliant structural design

Future site-specific geotechnical studies prior to construction

Design responses for moderate seismic activity

This approach aligns with standard BLM and NEPA practices, where environmental documentation identifies regional hazards and stipulates mitigation requirements for the engineering and construction phases.