

**[6450-01-P]**

**DEPARTMENT OF ENERGY**

**Record of Decision: Issuance of a Loan to Lithium Nevada Corp. for the construction and startup of the Thacker Pass Project**

**AGENCY:** Loan Programs Office (LPO), U.S. Department of Energy.

**ACTION:** Record of decision (ROD).

**SUMMARY:** The U.S. Department of Energy (DOE or the Department) announces its decision to issue a loan under the Energy Independence and Security Act of 2007, which established the Advanced Technology Vehicles Manufacturing Loan (ATVM) program, to Lithium Nevada Corp. (LNC), for the Thacker Pass Project (Project) located in Humboldt County, Nevada. The LPO loan covers Phase 1 of the Project, which entails the construction of lithium processing to include a sulfuric acid plant, lithium processing facility, and associated infrastructure. The Project is designed to produce battery-grade lithium carbonate, a critical component in the manufacturing of manufacture of eligible advanced technology vehicles and qualifying components.

**ADDRESSES** Copies of this ROD and the Final EIS may be obtained by accessing these documents and additional information about DOE's Loan Programs website at [www.energy.gov/lpo/eis-0561-thacker-pass-lithium-mine-project-humboldt-county-nevada](http://www.energy.gov/lpo/eis-0561-thacker-pass-lithium-mine-project-humboldt-county-nevada), or LPO's NEPA Program website at [www.energy.gov/lpo/environmental-compliance-1](http://www.energy.gov/lpo/environmental-compliance-1).

**FOR FURTHER INFORMATION CONTACT:** Dr. Anna Eskridge, NEPA Document Manager, Technical and Environmental Division, Loan Programs Office (LP-30), U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC, 20585; telephone (240) 743-1304; e-mail [anna.eskridge@hq.doe.gov](mailto:anna.eskridge@hq.doe.gov).

## **SUPPLEMENTARY INFORMATION:**

The environmental impacts of the construction, operation, and decommissioning of this project were analyzed pursuant to the National Environmental Policy Act (NEPA) in the *DOE/EIS-0561: Final Environmental Impact Statement for the Thacker Pass Lithium Mine Project, Humboldt County, Nevada (Adopted)* (88 FR 67277, September 29, 2023).

DOE LPO's review and adoption of the BLM NEPA documents covers only Phase 1 of the project to include the ore and chemical processing facilities and associated infrastructure, and not the development and operation of the open pit mine or exploration.

**NEPA Review:** Prior to DOE LPO consideration of a loan for the Project, LNC submitted the Plan of Operations for the Thacker North-South Exploration Project (case file NVN-098582) and the Thacker Pass Project Plan of Operations and Reclamation Plan (case file NVN-098586) to the U.S. Department of the Interior (DOI), Bureau of Land Management (BLM) Winnemucca District Office in September 2019. The North-South Exploration Plan of Operations would continue exploration to the north and south of the mine and processing facilities proposed in the Thacker Pass Project Plan of Operations. The Thacker Pass Mine Plan of Operations, herein referred to as the Mine Plan, would include the proposed mine, necessary processing and ancillary support facilities, and a plan for reclamation and closure of the mine and mine facilities. These Plans constituted the Thacker Pass Project analyzed in the FEIS. The Project is entirely on public land administered by the BLM in Humboldt County, Nevada, approximately 17 miles west-northwest of Orovada. Both Plans include corrections from December 2020 identified by BLM and Nevada Division of Environmental Protection (NDEP), and mitigating measures refined during the development of the EIS.

In compliance with NEPA, BLM issued the Draft EIS on July 31, 2020, which was followed by the Final EIS on December 4, 2020. On January 15, 2021, BLM issued a Record of Decision (ROD) for the Project that approved the plan of operations. The ROD identified Alternative A as the preferred alternative.

DOE was not a cooperating agency in the development of the EIS but became a cooperating agency for the project on August 15, 2023. Based on its independent evaluation of the 2020 BLM Final EIS, DOE has determined that the documentation satisfies DOE's NEPA obligations. DOE's proposed action is to provide funding to be used to support the construction and start-up of the mine processing facilities and associated infrastructure, which are the same proposed project facilities analyzed in the BLM Final EIS. Accordingly, DOE adopted the 2020 BLM Final EIS as a DOE Final EIS (DOE/EIS-0561) on September 29, 2023.

There have been several updates to the Project since DOE's adoption of the EIS in September 2023:

- In December 2023, LNC submitted minor revisions on the approved Mine Plan to BLM. On June 25, 2024, BLM authorized a minor modification to Phase 1 of the Mine Plan, which included proposed project facility locations, configuration of some facilities, and improvement to processing operations.
- As an update to the discussions on the transloading facility in Sections 2.2.7 (Ancillary and Support Facilities) and 4.16.1 (Issues – Public Access and Transportation) of DOE/EIS-0561, a rail-to-truck transloading facility is under development by a third party in Winnemucca to deliver raw materials to the site. Trucking distances are approximately 45 miles from Winnemucca to Oroville on US Highway 95, and about 20 miles from

Orovada to the site. The facility is not funded by the DOE financing and not located at the site of the Thacker Pass mine and processing facilities.

- DOE’s review identified additional cumulative impacts, which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.1(i)(3)). The review identified the following present and reasonably foreseeable future actions related to the Project:
  - **Workforce Housing Hub:** A workforce housing hub will be developed in Winnemucca on a 45-acre site to house up to 1,900 workers in 750 housing units. The hub is needed due to the limited rental housing and hotels available in the Winnemucca area. The hub is not funded by the DOE financing and not located at the site of the Thacker Pass mine and processing facilities. For cumulative effect study areas that the hub occurs within, the cumulative effects are not materially different from those analyzed by the BLM in Chapter 5.11 (Social and Economic Conditions) of DOE/EIS-0561.
  - **Greenhouse Gas (GHG) Emissions and Climate Change:** Section 5.9 (Air Quality and Greenhouse Gas Emissions) and Appendix K of DOE/EIS-0561 discuss the Project’s GHG emissions to include process sources and mobile mining equipment. However, the Project will also contribute to reductions in GHG emissions through annual fuel consumption savings. The magnitude of potential annual reductions in gallons of petroleum will depend on the number of EVs that can utilize the lithium carbonate produced by the Project. Lithium

carbonate from Thacker Pass could support the production of batteries for up to 800,000 electric vehicles (EVs) annually, avoiding the consumption of 317 million gallons of gasoline per year. The annual avoided CO<sub>2</sub> is calculated from the Project's annual fuel consumption savings (317 million gallons) multiplied by the U.S. Energy Information Administration CO<sub>2</sub> emission coefficient of 19.37 pounds of CO<sub>2</sub>/gallon for gasoline ([www.eia.gov/environment/emissions/co2\\_vol\\_mass.php](http://www.eia.gov/environment/emissions/co2_vol_mass.php)). Therefore, the Lithium carbonate produced by the Project and used in EVs would support a reduction of approximately 3.07 million tons of CO<sub>2</sub> per year.

**Alternatives Considered:** DOE's decision in this ROD is whether or not to issue a loan to LNC to support construction and start-up of the Project. Accordingly, DOE's alternatives are: (1) to issue a loan to LNC for the Proposed Action as authorized by BLM (Proposed Action), or (2) not issue a loan to LNC (No Action Alternative).

**Environmentally Preferable Alternative:** DOE reviewed both alternatives to identify the environmentally preferable alternative and considers the issuance of a loan to LNC for the Proposed Action as the environmentally preferable alternative. This alternative offers environmental benefits consistent with the statutory objectives of Section 136 of the Energy Independence and Security Act of 2007, which includes improving fuel economy for light-duty vehicles and thereby reducing emissions of ozone precursors, greenhouse gases (GHGs), and particulates associated with vehicle fuel combustion. As previously stated, the Lithium carbonate produced by the Project and used in EVs would support a reduction of approximately 3.07 million tons of CO<sub>2</sub> per year.

**Wetland Statement of Findings:** The adopted Final EIS (DOE/EIS-0561) provides the relevant information for a wetland assessment pursuant to 10 CFR part 1022. In the aquatic resources delineation for the Proposed Action as outlined in the BLM EIS, there were approximately 28,081 acres of wetlands and 128,411-linear feet of stream channel present within the survey area; however, aquatic resources in the Survey area did not meet the criteria of jurisdictional Waters of the United States. This was confirmed by the U.S. Army Corps of Engineers (USACE), which issued an Approved Jurisdictional Determination (AJD) on February 8, 2019, providing that no aquatic resources within the Survey area are regulated by the USACE (Identification Number SPK-2011-01263). However, there are non-jurisdictional riparian areas as well as wetlands at the Project site and those impacts and the wetland assessment on those resources are discussed in Sections 4.4 and 5.4 in the Final DOE/EIS-0561.

**Consultations:** DOE was not a cooperating agency with BLM during its NEPA process; therefore, DOE completed its own environmental compliance reviews and consultations. Specifically, DOE consulted with the U.S. Fish and Wildlife Service (USFWS), the Nevada State Historic Preservation Office (NV SHPO), and Tribes (collectively known as Tribes or individually by name: Burns Paiute Tribe; Confederated Tribes of the Warm Springs Reservation of Oregon; Fort McDermitt Paiute and Shoshone Tribe; Paiute-Shoshone Tribe of the Fallon Reservation and Colony, Nevada; Pyramid Lake Paiute Tribe of the Pyramid Lake Reservation, Nevada; Reno-Sparks Indian Colony, Nevada; Shoshone-Bannock Tribes of the Fort Hall Reservation; Summit Lake Paiute Tribe; Te-Moak Tribe of Western Shoshone Indians of Nevada [Four constituent bands: Battle Mountain Band; Elko Band; South Fork Band and Wells Band]; Walker River Paiute Tribe of the Walker River Reservation, Nevada; Winnemucca Indian Colony; Yerington Paiute Tribe of the Yerington Colony and Campbell Ranch, Nevada).

Additionally, the DOE reviewed the BLM's Final EIS and supporting documentation and related surveys, studies, and consultations.

DOE consulted with USFWS to meet its obligations under Section 7 of the Endangered Species Act. By letter dated May 1, 2024, the USFWS concurred with DOE's determination that the proposed action may affect, but is not likely to adversely affect, Lahontan Cutthroat Trout.

DOE consulted with the NV SHPO and Tribes to meet its obligations under Section 106 of the National Historic Preservation Act. DOE completed an assessment of adverse effects in accordance with 36 CFR 800.5 with the following determination:

- BLM and the NV SHPO executed a Memorandum of Agreement (MOA) that took into account and resolved the adverse effects to 57 Historic Properties within the APE in November 2020, before DOE was involved in the Project. Pursuant to Section 106 of the NHPA and 36 CFR 800.5(b), DOE has determined that its undertaking would not result in an adverse effect on the 57 historic properties within the APE that was not already resolved or accounted for in the MOA or the associated Historic Properties Treatment Plan.
- Going forward, DOE recognizes that BLM is the lead federal agency responsible for the post-review discovery process for the two unevaluated and potentially eligible properties pursuant to 36 CFR 800.13, and DOE will continue to support BLM's efforts as lead agency in its active engagement in the ongoing post-review discovery process.
- In addition, DOE recognizes that BLM is the lead federal agency responsible for the post-review discovery process for any additional future resources identified as addressed in the MOA and HPTP, and DOE will continue to support BLM's efforts as lead agency in its post-review discovery process.

More information on Section 106 can be found here: [www.energy.gov/lpo/eis-0561-thacker-pass-lithium-mine-project-humboldt-county-nevada](http://www.energy.gov/lpo/eis-0561-thacker-pass-lithium-mine-project-humboldt-county-nevada).

**Final DOE/EIS-0561 Review Period:** The Notice of Availability of the Final DOE/EIS-0561 and the Adoption Notice were published in the *Federal Register* on September 29, 2023.

DOE received submittals containing views and information both during and after the review period. In total, DOE received 11 submittals from parties opposed to the project containing views and information. DOE reviewed all the views and information for any significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. DOE's review focused on whether the views and information identified that the Project would affect the quality of the human environment in a significant manner or to a significant extent not already considered in the Final DOE/EIS-0561 and related environmental review processes. As discussed, the views and information did not identify new information that showed the Project would affect the quality of the human environment in a significant manner or to a significant extent not already encompassed by the analysis considered in the Final DOE/EIS-0561 or in the preparation of this Record of Decision.

DOE grouped the views and information received into the following 10 categories: (1) NEPA process (DOE's Record of Decision); (2) DOE's due diligence process for the loan (financial and technical viability of the project); (3) socioeconomics (viability of lithium batteries; lithium and sulfuric acid pricing); (4) safety (radioactive materials); (5) historic, cultural, and Tribal resources (Section 106, historic properties; Tribal input on federal agency decision making); (6) Electricity Use and GHG Emissions; (7) water resources (mining and the water table; impacts to springs, groundwater; data assumptions and groundwater models); (8) data gathering and monitoring (private land access; monitoring and work plans; work outside mine plan boundary)



(9) air emissions, (10) chemical and waste management (sulfuric acid; clay tailings). With the exception of views and information on DOE's NEPA process, due diligence process, and socioeconomics, the views and information are addressed in the Final DOE/EIS-0561, specifically in Appendix R (Comment Responses) and in consultations for the project (specifically, Section 106).

The views and information received on DOE's NEPA process, DOE's due diligence process for the loan, and the socioeconomics (viability of lithium batteries; lithium and sulfuric acid pricing) were not addressed in the Final DOE/EIS-0561. DOE performs rigorous due diligence related to all aspects of a potential loan transaction under the ATVM Program. The ATVM Program is administered by the DOE LPO. LPO originates, underwrites, and services loans to eligible automotive manufacturers and components manufacturers. LPO has reviewed and determined that LNC's application is eligible for a potential loan (10 CFR 611.100, 611.101, and 611.102). The purpose and need for DOE's proposed action, the issuance of a Federal loan, is to implement DOE's authority under Section 136 of the Energy Independence and Security Act of 2007, which is to finance projects that reequip, expand, or establish manufacturing facilities in the United States to produce qualified advanced technology vehicles or qualifying components, and also for engineering integration costs associated with such projects. (42 U.S.C. 17013, as amended). Before LPO issues the Federal loan, the due diligence process includes an analysis on technical, financial, and environmental aspects of the project to include completion of DOE's NEPA process (BLM EIS adoption, consultations, and Record of Decision), the financial and technical viability of the project, and the socioeconomics (viability of lithium batteries; lithium and sulfuric acid pricing) involved. The company must satisfy certain technical, legal, environmental, and financial conditions before the Department funds the loan.

DOE thoroughly reviewed and considered all the views and information received during and after the review period and has concluded that none of the comments provide new information or identify new circumstances that warrant preparation of a supplemental EIS. This conclusion is based on the following: (1) the majority of the views and information were addressed in the Final DOE/EIS-0561, specifically in Appendix R; (2) the additional review conducted by BLM in the June 25, 2024, approval letter for minor modification to Phase 1 of the Mine Plan; (3) review of required permits, approvals, and works plans for the project and any associated updates to those permits, approvals, and work plans; (4) the consultations, determinations, and coordination completed by DOE; and (5) the additional analysis described above that were considered in the preparation of this ROD.

**Decision:** DOE has decided to issue a loan to LNC, for construction and start-up of lithium processing to include a sulfuric acid plant, lithium processing facility, and supporting infrastructure and facilities in Humboldt County, Nevada. Approval of the loan for the Thacker Pass Project responds to the DOE purpose and need pursuant to Section 136 of the Energy Independence and Security Act of 2007, which is to finance projects that reequip, expand, or establish manufacturing facilities in the United States to produce qualified advanced technology vehicles or qualifying components, and also for engineering integration costs associated with such projects. (42 U.S.C. 17013, as amended). DOE's Proposed Action evaluated in this ROD supports the Phase 1 activities at Thacker Pass analyzed within the Final DOE/EIS-0561.

**Mitigation:** All DOE loan agreements require that the borrower comply with all applicable environmental laws and related requirements, as well as required approvals and permits. To ensure that the recipient complies with the requirements of the loan agreement, the Loan Programs Office proactively monitors and administers all operative loan transactions. The loan

agreement includes a condition requiring that LNC must notify DOE if formal or informal environmental notices, orders, decisions, directives, or determinations submitted by any Governmental Authority or if there are any changes to Required Approvals. These mitigation measures are practicable means to avoid or minimize environmental harm. A recipient's failure to comply with applicable laws, authorizations, and approvals may constitute a default, upon which DOE would have the right under the loan agreement to exercise usual and customary remedies.

### **Signing Authority**

This document of the Department of Energy was signed on October 28, 2024, by Jigar Shah, Director, Loan Programs Office, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, D.C., on October 28, 2024.

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Jigar Shah  
Director, Loan Programs Office