

**FINDING OF NO SIGNIFICANT IMPACT
FOR
MOSES LAKE AUTO-SCALE SILICON ANODE PLANT
SILA NANOTECHNOLOGIES, INC.
MOSES LAKE, WASHINGTON
DOE/EA-2214**

RESPONSIBLE AGENCY: U.S. Department of Energy (DOE)

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: DOE completed the Final Environmental Assessment (EA) for Sila Nanotechnologies, Inc. (Sila) – Commercial-scale Silicon Anode Plant (DOE/EA – 2214). Based on analyses in this EA, DOE determined that the Proposed Action - awarding a grant to Sila to partially fund the design, construction, and operation of their commercial-scale silicon anode manufacturing plant - would result in no significant adverse impacts. DOE further determined that there would be beneficial impacts to socioeconomics, environmental justice, and greenhouse gas emissions reduction from implementation of Sila’s Proposed Project.

BACKGROUND: As part of the Infrastructure Investment and Jobs Act (Bipartisan Infrastructure Law; Public Law 111-58), DOE’s National Energy Technology Laboratory (NETL), on behalf of the Office of Manufacturing and Energy Supply Chains and the Office of Energy Efficiency and Renewable Energy, jointly issued the Funding Opportunity Announcement (FOA) DE-FOA-0002678 Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing. The BIL appropriates more than \$62 billion to the DOE to deliver advances toward a clean energy future for the American people and contribute to global greenhouse gas and carbon reduction by investing more than \$7 billion in the battery supply chain over the five-year period encompassing fiscal years (FYs) 2022 through 2026.

Sila’s new manufacturing facility would enable sourcing of critical battery materials from within the U.S. and reduce dependence on foreign material supply as well as improve the lithium-ion battery industry in the U.S. and anticipated growth in the EV and hybrid-electric vehicle industries. If approved, DOE would provide \$100,000,000 in financial assistance in a cost-sharing arrangement with the project proponent, Sila, who would provide approximately \$517,000,000 towards the total project cost of approximately \$617,000,000.

Based on the scope of the Proposed Project, DOE prepared an EA to evaluate potential environmental and socioeconomic consequences of providing financial assistance for the proposed project in accordance with the requirements of the National Environmental Policy Act (NEPA), as amended (42 U.S.C. 4321 et seq.), the President’s Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 CFR Parts 1500 to 1508), and DOE’s implementing procedures for compliance with NEPA (10 CFR Part 1021).

PURPOSE AND NEED: The overall purpose and need for DOE action pursuant to the Office of Manufacturing and Energy Supply Chains in collaboration with the Office of Energy Efficiency and Renewable Energy and the funding opportunity under the BIL is to accelerate the development and production of a resilient supply chain for high-capacity batteries by increasing investments in battery materials processing and battery manufacturing projects. Sila's project site was selected due to its proximity to supporting industries, availability of existing industrial facilities in the area, as well as the site's access to reliable green energy (hydroelectric and wind power) for Sila's energy-intensive operations. The site has room for future expansion, exceptional access to transportation infrastructure, public utilities, and has great potential to have a positive economic impact on the Moses Lake community. This and other selected projects are needed to maximize benefits of the clean energy transition as the nation works to curb the climate crisis. These projects would meet the objective of recruiting, training, and retaining a skilled workforce in communities that have lost jobs due to displacement of fossil fuel-based energy jobs. The proposed project will also meaningfully assist in the nation's economic recovery by creating manufacturing jobs in the United States in accordance with the objectives of the BIL. The funding received from BIL will make this project (and others) possible.

DESCRIPTION OF THE PROPOSED ACTION: DOE's Proposed Action is to provide a grant to Sila in a cost-shared arrangement to partially fund Sila's proposed project to design, construct, and operate an automotive-scale silicon anode manufacturing plant, up to 2,300 tpy, in Moses Lake, Washington (Proposed Project). The Facility consists of an existing, but vacant 613,000 square foot building on 162 acres, with modifications to the existing facility's interior walls, floors, ceilings, and other architectural features to accommodate new equipment and refresh the existing office space, as well as installation of process equipment and utilities and storage vessels outdoors. The building was previously constructed for industrial use under prior owners, but never utilized. Once completed and at full production levels, the Facility would produce enough silicon-anode material to supply over 200,000 EVs annually.

The Facility build would occur within Sila's existing industrial site, which was zoned industrial in 2015 by the City of Moses Lake and the previous owner. The existing structure on the property would be expanded by an additional 26 acres and include new ancillary buildings (e.g., fire pump house, guard stations, etc.), tanks, process and balance of plant equipment, abatement tools, and various paved surfaces as well as stormwater management infrastructure and landscape plantings. The proposed project would create approximately 450-500 construction jobs at construction peak and between 150-300 new full-time jobs with benefits during Facility commercial operations.

ALTERNATIVES CONSIDERED: In addition to the Proposed Action, DOE considered the No-Action Alternative as required under NEPA. Under the No-Action Alternative, DOE would not provide funds for the Proposed Project. It is Sila's intent to proceed in the absence of DOE funding, and DOE recognizes that this project might continue if DOE decides not to provide financial assistance. If Sila's Proposed Project proceeds without DOE's financial assistance, the potential impacts would be essentially identical to those under DOE's action alternative. To

allow a comparison between the potential impacts of the projects to be implemented and the impacts of not proceeding with the project, for purposes of analyzing potential impacts in the EA, DOE assumed that the Proposed Project would likely not proceed without DOE assistance. The baseline of potential impacts in this case would involve Sila not designing, building, and operating their Facility.

ENVIRONMENTAL CONSEQUENCES: DOE considered the potential effects of the Proposed Action and No-Action alternative on eighteen environmental resource areas in preparation of the EA; however, not all resource areas were evaluated at the same level of detail. DOE determined that community services, parks and recreation, and aesthetics and visual resources were resource areas that would either not be affected or would sustain negligible impacts from the Proposed Project and thus were dismissed from detailed analysis in the EA. The areas that DOE evaluated in more detail included socioeconomics, environmental justice, wetlands and floodplains, surface water and groundwater, land use, air quality, greenhouse gasses, noise and vibration, geology, soils and topography, cultural resources, vegetation and wildlife, regulated wastes (solid and hazardous wastes), utilities and energy use, transportation and traffic, and public and occupational health and safety. For these areas, DOE determined there would be negligible or minor potential environmental impacts.

Socioeconomics: The Proposed Project would provide approximately 450-500 jobs during the peak construction period, with approximately 25 percent hired from the local population, and Sila would demonstrate a preference for contracting with local companies. Once operational, the Proposed Project would initially create approximately 150 - 300 new FTE jobs at full capacity. Labor requirements are not expected to change drastically as most jobs would be in advanced manufacturing operations, which is already represented in the region. No substantial influx in population is expected, therefore the impact to housing demand, public services, and resources would be expected to be minor and beneficial.

Environmental Justice: The Proposed Project supports DOE's stated EJ policy priority to increase clean energy jobs, the job pipeline, and job training for individuals from disadvantaged communities. While the Proposed Project site is not within a disadvantaged community, Sila is committed to promoting benefits for communities in the greater Moses Lake, Washington area. Sila also intends to implement programs to train underrepresented individuals to increase the pool of qualified candidates. For example, Sila is currently partnered with Big Bend Community College and the Columbia Basin Technical Skills Center for workforce development through a first-of-its-kind education program geared towards training the future battery workforce in Moses Lake. The program, focused on providing hands-on training for technical, mechanical, electrical, and software skills, will prepare students for new employment opportunities at Sila's silicon anode manufacturing plant.

Wetlands and Floodplains: A total of three wetlands (i.e., Wetland A, Wetland B, and Wetland D) and one stream (Stream 1) were identified on the Proposed Project site. Stream 1 is associated with Wetland A. Wetlands A and B are classified as type III wetlands with 25-foot-

wide buffers in accordance with the Washington State Wetlands Rating System for Eastern Washington. Wetland D is considered a Type IV wetland with a 10-foot buffer width. The Army Corps of Engineers determined that none of the drainages were “waters of the United States” under the Clean Water Act. Under this determination, no Section 404 permit or Nationwide Permit concurrence is required for the Proposed Project. The Proposed Project does not include any construction or operations within or in immediate proximity to wetlands, wetland buffers, or streams. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map indicates that the Proposed Project site lies in Zone X, indicating the area has minimal flood hazards (above the 500-year floodplain). Thus, the Proposed Project is anticipated to have negligible impacts on wetlands and floodplains.

Cultural Resources: The Proposed Project site lies within the traditional territories of the Sinkayuse Tribe, currently represented only by the Confederated Tribes of the Colville Reservation (Colville Reservation), and according to the Washington State Department of Archaeology and Historic Preservation (DAHP), the Project Area is in an ‘area of interest’ for the Colville Reservation, the Confederated Tribes and Bands of the Yakama Nation, the Spokane Tribe of Indians, and the Confederated Tribes of the Warm Springs Reservation of Oregon. Several cultural resource and desktop analyses had previously been completed for the Proposed Project site. Details of these surveys are outlined in the EA, but none indicated the presence of cultural resources, materials, or historic properties eligible for inclusion on the National Register of Historic Places.

DOE initiated consultation with the Washington State Department of Archaeology and Historic Preservation (DAHP) regarding DOE’s Proposed Action and Sila’s Proposed Project on May 11, 2023, and initiated consultation with the Colville Reservation, the Confederated Tribes and Bands of the Yakama Nation, the Spokane Tribe of Indians, and the Confederated Tribes of the Warm Springs Reservation of Oregon throughout May and June of 2023. The Washington DAHP and tribal nations noted above also received copies of the Draft EA for review and comment as part of the 30-day public comment period. Consultation and/or review of the Draft EA resulted in responses from the Colville Reservation concurring with the findings, determination, and recommendations in the Cultural Resources Survey. The Washington DAHP and the Spokane Tribe of Indians responded to DOE and concurred with DOE’s finding of “No Historic Properties Affected.” Due to the absence of sensitive resources of historic, cultural, or tribal interest at the site, and based on the responses received from the Washington DAHP and tribal nations described above, the Proposed Project would have negligible impacts on cultural and historic resources.

Air Quality: The Proposed Project’s operational impacts to air quality are subject to a Clean Air Act with an operating permit issued by the Washington State Department of Ecology’s Eastern Regional Office. Sila submitted a Notice of Construction (NOC) application and Supporting Information to the Washington State Department of Ecology demonstrating the Proposed Project would comply with all state and federal air quality regulations and standards. Sila received an Approval Order for this project from Ecology. The site will be required to perform annual

emission monitoring to verify the site is at or below permitted air emission limits. Numerous mitigation measures and standard procedures related to air quality would be employed during construction and operation of the Proposed Project. These are consistent with the Proposed Project's NOC Approval Order, which incorporates all applicable requirements of the Clean Air Act, including those related to operations and specific processes, installation of source control equipment, emissions testing requirements, and monitoring and reporting protocols. Based on these factors, the Proposed Project would have minor adverse impacts on air quality which would be mitigated using the measures described above.

Greenhouse Gasses: The Proposed Project would incur a net-positive long-term impact to greenhouse gas (GHG) emissions through contributions to decarbonizing U.S. transportation, which would markedly outweigh GHG emissions from construction and operation of Sila's Facility. Sila estimates that production levels at the Proposed Project site would produce sufficient silicon anode material to create lithium-ion batteries for more than 200,000 EVs annually once Sila's facility is operating at full production levels. Emissions reductions associated with EV production as opposed to conventional gasoline and diesel-fueled vehicles would be expected to exceed any emissions anticipated from construction and operations of the Proposed Project during its operational lifetime.

Noise and Vibration: Typical construction noise would be generated during the construction phase of the Proposed Project. Noise producing equipment is planned to be located primarily on the south side of the Facility, approximately 1,000 feet from the nearest residences which are located north-northwest of the Facility. The current basis of equipment design specifies equipment sound levels to be no more than 85 dBA at 3 feet with a maximum of 115 dBA only during emergency and upset operating conditions. Based on State of Washington Administrative Code, the applicable noise limits at the property lines of adjacent and nearby properties are as follows: 70 dBA at industrial or agricultural receiving properties, 60 dBA (daytime), and 50 dBA (nighttime) at residential receiving properties. As the Proposed Project is located within an existing industrial area with other industrial tenants with mechanical and traffic-related noises, any increase in noise from operations of the Proposed Project over ambient conditions would be minor. Based on the location of the facility and the current and future land use and zoning of the project site and adjacent properties, operational noise associated with the Proposed Project would comply with all relevant noise regulations and is not expected to conflict with current uses of adjacent or nearby properties.

Geology, Topography, and Soils: Proposed Project impacts to geology, soils, and topography are anticipated to be direct, long term, and minor. The site would undergo site preparation and grading to achieve proper slopes for drainage as well as earthwork for construction of equipment and pipe rack foundations on the south side of the existing Sila building on site. Development in the vicinity of the Proposed Project consistent with existing zoning would not generate cumulative adverse impacts to geology, topography, or soils. Potential for future impacts to soils and underlying geology would be mitigated throughout the life of the Proposed Project through the implementation of spill prevention and emergency response procedures as well as a facility

monitoring and inspection program. Any and all erosion control measures required by the City of Moses Lake and the State of Washington would be implemented and followed throughout the construction phase and during plant operation as well as recommendations identified in a 2023 Geotechnical Report previously completed and referenced within the EA.

Surface Water and Groundwater: Construction of the Proposed Project would have minor temporary indirect impacts from runoff to surface waters. Sila has obtained a Construction General Stormwater Permit (WAR312862) from the State of Washington Department of Ecology for this project. These impacts would be minimized through implementation of best management practices (BMPs) required by Sila's stormwater permit, including installation of silt curtains and hay bales to slow and filter water runoff, reducing the time excavations are open to erosion, stabilized construction entrances, and other measures. The project includes a stormwater system including use of the existing stormwater retention and infiltration pond in the northwest portion of the site (which would continue to collect stormwater from the existing building roof) as well as a new stormwater retention and infiltration pond in the southwest portion of the site to control the remaining stormwater runoff generated on the site. All tanks would be located in an area with secondary containment (i.e., berms) to prevent release to the environment. All liquid tanker truck loading/unloading areas would be designed to collect all potential leaks from the transfer process. All wastewater discharges directed to the Sand Dunes Wastewater Treatment Plant would be subject to, and in compliance with, any necessary Clean Water Act permits or authorizations. Sila is currently working with Washington State Ecology and Moses Lake to obtain a waste discharge permit to this publicly-owned treatment works.

Water utilized for the Proposed Project would be provided by the City of Moses Lake, and there would be no use of groundwater. The spill prevention and response plan implemented by an onsite Emergency Response Team would prevent spilled constituents from infiltrating the soil and reaching groundwater. Given the low potential for discharges during operations to reach groundwater and the limited increase in water usage (estimated at 25,000 gallons/day) that Sila's water requirements represent in terms of the City's available water capacity, Proposed Project operations would have a minor long term direct impact on groundwater resources.

Vegetation and Wildlife: Impacts to vegetation from Proposed Project construction are anticipated to be minor, affecting primarily weedy nonnative vegetation and four to five acres of low-quality priority habitat (e.g., shrub steppe). The site would undergo preparation and grading to achieve proper slopes for drainage and earthwork for construction of equipment and pipe rack foundations on the south side of the existing building. As a result, impacts to vegetation from proposed project construction are anticipated to be direct, minor and long-term, and operations of the proposed project are not anticipated to create any additional impacts to vegetation.

Impacts to listed endangered or threatened species or designated critical habitat from the Proposed Project are not anticipated. This determination was based on conclusions of a Shrub Steppe Analysis previously completed in March 2023 and analysis of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPac) desktop analysis completed

in May 2023. No listed endangered or threatened species have been observed or documented on the site, and the Shrub Steppe analysis indicated that the site “has been disturbed in the past through both farming activity as well as the presence of a manufacturing facility,” and that four to five acres of the site that could be considered priority habitat has been determined to be of very low quality, is small and isolated, and its proximity to the existing building renders it of minimal value to wildlife species associated with shrub steppe habitat. While the desktop analysis and report generated from a query of the USFWS IPaC tool identified theoretical potential for as many as two listed species to exist within or in proximity to the Proposed Project site, the March 2023 Shrub Steppe field survey associated with the Shrub Steppe analysis of the site did not identify these species or their critical habitat. As a result, DOE determined that there would be no effect on listed species resulting from its Proposed Action. in the project area in relation to the Proposed Project. DOE initiated consultation with the Washington Office of the USFWS on May 31, 2023, regarding its Proposed Action and Sila’s Proposed Project, and a copy of the Draft EA was also submitted to the Washington Office of the USFWS as part of the 30-day public comment period. No comments were received from the USFWS in response to the Draft EA, or DOE’s determination of effect.

Regulated Wastes (Solid and Hazardous Wastes): Construction is expected to generate negligible impacts from regulated waste. Solid waste and sanitary waste generated during construction activities would be limited to common construction-related waste streams which existing landfills or recycling facilities will have the capability and capacity to accept. Operations are expected to incur minor, long-term impacts from regulated wastes, including certain non-hazardous waste streams and oil. The quantity of hazardous waste generated by the proposed project would determine the Facility’s updated generator status and which Federal and State regulations related to waste generation, management, and disposal would be applicable. Sila is committed to finding better methods to reduce onsite waste generation. For example, off-spec materials disposal will involve waste to energy methods while fuel blending and solvent recovery options are utilized where applicable. Sila is also currently investigating the ability to recycle and reuse caustic scrubber wastewater.

Utilities and Energy Use: Construction of the Proposed Project would have short-term, negligible adverse impacts on utilities, including electricity, water, gas, and sewer. Electrical service used during construction would be provided by tie-ins to the existing electrical facilities at the site. The existing potable water supply at the site would be utilized during construction. Temporary water storage tanks may be placed on site for use during construction. Temporary, portable restroom facilities would be used at the site during construction in addition to the existing restroom facilities. Proposed Project operations would have minor direct impacts on local utilities and energy use, as the industrial processes involved would increase the demand for electricity, water, and gas at the Proposed Project site, and increase the amount of wastewater generated on the site. However, the estimated maximum utility demands for the project are all anticipated to be less than the capacities that are currently provided by the existing infrastructure.

Transportation and Traffic: Construction would have short term but measurable minor adverse impacts to traffic lasting up to 15-18 months for Phase 1 and an additional 15-18 months for Phase 2. Operations would generate a minor long-term increase in anticipated daily truck and personal-vehicle traffic resulting from the expected 10 additional truck trips per day over existing traffic for delivery and shipments. Trucks would use the established road network to access the Project site, and these roadways are designed for and currently accommodate industrial truck traffic. Once fully operational the Facility would add approximately 150 - 300 new employees and there would be a corresponding daily increase in the number of personal vehicles at the site; however, the number of personal vehicles is expected to be distributed throughout the day, as the project would be operated in two shifts. Moreover, Facility design includes adequate parking, loading, and maneuver space for these vehicles.

Public and Occupational Health and Safety: Risks to public and occupational health and safety from Proposed Project construction and operations are expected to be minor, direct and indirect, and long-term. Sila's Facility is subject to numerous regulatory permitting requirements and planned mitigations addressing factors relevant to public and occupational health and safety, and Sila's existing corporate policies further address relevant health and safety risk factors and would be followed throughout construction and operations. Materials used during operation of the Proposed Project would include sodium hydroxide, sulfuric acid, silane and hydrocarbon gasses, nitrogen, oxygen, and other cryogenic gasses. To reduce risk, the materials would be received via tanker trucks within the designated receiving area, allowing for strictly controlled and consistent management. Sila will continue to incorporate emergency policies and procedures, required health, safety, and security training, and specialized training for individuals handling hazardous materials and wastes at the Facility. Sila would prepare an Emergency Action/Crisis Management (EA/CM) Plan that would address unanticipated events (e.g., natural disaster, terrorism, accidents, spills) and Sila would build on EA/CM Plans from their other facilities with similar operations.

PUBLIC AVAILABILITY: DOE issued the Draft EA and advertised its release in the *Columbia Basin Herald* on February 20, 2024, through February 22, 2024. The Draft EA was published online on DOE's NETL EA website (<https://netl.doe.gov/node/6939>) and DOE's NEPA EA website (<https://www.energy.gov/nepa/doe-environmental-assessments>). In addition, DOE sent hard copies for public review to the Moses Lake Public Library (Main Branch) in Moses Lake, WA. DOE established a 30-day public comment period that began on February 20, 2024, and ended March 20, 2024. DOE announced it would accept comments by mail, phone, and email. All comments received are located within Appendix 5 of the Final EA.

The Draft EA was distributed to tribal nations and federal, state, and local agencies with jurisdiction or special expertise. During development of the Draft EA, and prior to the public comment period, DOE initiated consultations with the U.S. Army Corps of Engineers office in Seattle, WA, the USFWS field office in Lacey, WA, and the Washington DAHP in Olympia, WA. DOE initiated consultations with the Confederated Tribes and Bands of the Yakama Nation, the Colville Reservation, the Spokane Tribe of Indians, and the Confederated Tribes of

the Warm Springs Reservation of Oregon. Through these consultations, DOE provided information about the Proposed Project and solicited input for consideration both prior to finalizing and releasing the Draft EA for public comment and then again concurrent with the public release of the Draft EA. All tribal nations and agencies noted above received copies of the Draft EA for review and comment.

PUBLIC COMMENTS: No comments were received from individuals of the general public. Region 10 of the U.S. Environmental Protection Agency and the State of Washington Department of Ecology provided comments via email. Responses received from the Washington DAHP, the Spokane Tribe of Indians, and the Colville Reservation are described in the “Cultural Resources” section above. DOE was also invited to participate in a government-to-government tribal consultation with the Colville Reservation’s Colville Business Council on March 4, 2024. During this consultation, DOE received numerous questions and comments concerning Sila’s Proposed Project. DOE subsequently incorporated additions, revisions, and responses to comments resulting from this consultation into a revised Draft EA, which was submitted to the Colville Business Council for additional review and comment on May 5, 2024. No further comments were received from the Colville Business Council on the revised Draft EA.

All comments received are acknowledged, addressed in the text of the Final EA, and included in Appendix 5 of the Final EA.

MITIGATION REQUIREMENTS: No additional mitigation measures beyond those contained in permits obtained or to be obtained by Sila from the appropriate permitting authorities are required.

DETERMINATION: Based on information presented in the Final EA (DOE/EA-2214), DOE finds that the Proposed Action to provide a financial assistance grant to Sila would not significantly affect the quality of the physical, biological, or human environment. Therefore, preparation of an Environmental Impact Statement is not required, and DOE is issuing this FONSI.

Copies of the Final EA and this FONSI are available at DOE’s NETL EA website at: <https://netl.doe.gov/node/6939>. The Final EA and FONSI are also available at DOE’s NEPA – EA website at <https://www.energy.gov/nepa/doe-environmental-assessments>. Copies of the Final EA and FONSI can also be obtained by sending a request to:

Mr. Stephen Witmer
NEPA Compliance Officer
U.S. Department of Energy
National Energy Technology Laboratory
626 Cochran Mill Road
M/S 921-227
Pittsburgh, PA 15236
412-386-7589
stephen.witmer@netl.doe.gov

Sean I. Plasynski, Ph.D.
Principal Deputy Director (Acting), National Energy Technology Laboratory