DocuSign Envelope ID: E417BD10-59F7-4BA8-A7D2-16E0D9B0D39F

All redacted information is exemption (b)(4)

DOE F 540
(04-2017)

OMB Number 1910-5175
Exp. 11/30/2020

OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

ENVIRONMENTAL QUESTIONNAIRE

SECTION I. PROJECT SUMMARY	
Control Number:	2678-1600
Project Title:	Sila Nanotechnologies Auto-Scale Silicon Anode Plant
Applicant:	Sila Nanotechnologies
Other Participants (Subrecipients, Contractors, etc.):	
FOA Number:	DE-FOA-0002678
FOA Title: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing	

SECTION II. BACKGROUND AND INSTRUCTIONS

Pursuant to the U.S. Department of Energy's National Environmental Policy Act (NEPA) implementing regulations (10 C.F.R. Part 1021), the Office of Energy Efficiency and Renewable Energy (EERE) is required to evaluate the potential environmental impact of projects that it is considering for funding. EERE must determine at the earliest possible time whether any proposed project qualifies for a categorical exclusion under 10 C.F.R.§ 1021.410 or will require further environmental review within an environmental assessment or an environmental impact statement.

You are required to answer the questions below for the project as a whole, including all work to be performed by the Recipient, its subrecipients and contractors, including any work outside of the United States. You may not limit your responses to work performed by the Recipient only unless instructed to do so by EERE. In completing this questionnaire, you must provide specific information regarding the nature of your proposed project, including information on its size, operations, and the types and quantities of air emissions, wastewater discharges, solid wastes, land disturbances, etc. You should identify the location(s) of the proposed project and describe the activities that would occur at each location.

The form should be completed and signed by the Principal Investigator for the project or another member of your organization who has sufficient knowledge of the project to answer the questions truthfully and accurately.

Failure to fully and adequately complete this form will delay EERE's environmental review of your proposed project. Please note that false statements or misrepresentations may result in civil and/or criminal penalties under 18 U.S.C. § 1001.

BURDEN DISCLOSURE STATEMENT
Public reporting burden for this collection of information is estimated to average 60 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2-GTN, Paperwork Reduction Project (1910-1800), U.S. Department of Energy, 1000 Independence Avenue S.W., Washington, D.C. 20585; and to the Office of Management and Budget (OMB), Paperwork Reduction Project (1910-1800), Washington, D.C. 20503.

SECTION III. PROJECT EVALUATION

1a. In the box below, please provide a brief summary of the proposed project activities. Describe physical activities, not goals and objectives. Specify if this project is part of a larger project or connected to another project.

Example: The proposed project activities include the design, development, fabrication, and field testing of advanced biomass harvesting equipment. Design, development, and fabrication activities would occur at our research and development facility adjacent to our manufacturing plant in Dearborn, Michigan. Equipment testing would occur in various agricultural fields in the surrounding area over a two-year period.

Explanation:
The proposed Project activities include the improvement of an existing industrial building and land plot to establish a battery material (anode powder) manufacturing facility. Planning activities (e.g., architectural drawings and design, engineering planning, and process development) will occur in Alameda, California and at contractors' offices in California and Washington state. Construction activities and equipment delivery, installation, and startup will occur at a newly purchased existing building and plot in Moses Lake, Washington. Construction at the site will span approximately two years, and full operation of the plant will commence in mid-2025.

1b. Is there other Federal government involvement outside of EERE in any aspect of this project (e.g., funding, permitting, technical assistance, project located on Federally administered land)?

Yes ☐ | **No** ☒

If you checked "Yes," please list the agency, describe the nature of its involvement, and provide a point of contact at the agency, if known.

Explanation:
N/A; Sila checked "No."

1c. Is the proposed project limited exclusively to intellectual, academic, or analytical activities?

Intellectual, academic, and analytical activities include, but are not limited to:

- Literature searches and information gathering
- Data analysis
- Computer modeling
- Analytical reviews
- Conceptual design
- Feasibility studies
- Document preparation
- Data dissemination
- Paper studies

You must answer "No" to this question if the proposed project involves any laboratory research and/or development, physical experiments, pilot-scale projects, demonstration projects, field tests, land-disturbance, construction, or similar activities.

Yes ☐ | **No** ☐

If you checked "Yes," proceed directly to Section IV (Certification) and complete the information and signatures as requested. If you checkned "NO" you must complete the entire questionnaire.

Explanation:
N/A; Sila checked "No."

If you checked "Yes," proceed directly to Section IV (Certification) and complete the information and signatures as requested. If you checked "No," you must complete the entire questionnaire.

2a. Is the project fully defined at this point (i.e., all sites and activities are known)?

Yes ☒ | **No** ☐

If you checked "No," please describe those sites and/or activities/tasks that are yet to be defined and complete the remainder of the questionnaire to the best of your knowledge.

Explanation:
The Project site and scope are fully defined; engineering and construction activities are planned. Final decisions around equipment layout and component specifications will be defined during the detailed design phase.

2b. In the chart below, please describe the following four types of identifying information concerning project activities to be performed:

(1) each location where work would be performed, including address or coordinates, names of facilities, and whether this is a Recipient, Subrecipient, or Contractor location;
(2) the nature of the location (e.g., urban, industrial, suburban, agricultural, university campus, manufacturing facility) and the current condition and/or use of the site;
(3) the types of activities to be conducted at that location;
(4) land administration (e.g., BLM, USFWS, DOD, state, private).

(1) ***List all Locations Where Project Activities Would Occur (Facility Name and Address or Coordinates) and Indicate Recipient, Subrecipient, or Contractor***	*(2)* ***Nature of Location and Current Condition/Use***	*(3)* ***Activities to be Performed at Each Location***	*(4)* ***Land Administration***
Sila Nanotechnologies	Manufacturing facility	Construction of a silicon anode manufact	Sila Nanotechr
Sila Nanotechnologies,	R&D and pilot manuf	Engineering and development of the spe	North River Co
Example 1: Smith Laboratory (recipient) 1234 College Lane Baltimore, MD XYZ Corporation (subrecipient) 1232 Industrial Drive Golden, CO	Smith Laboratory – Dedicated University Laboratory Facility XYZ Corporation – Manufacturing Facility in Industrial Park	Activities would include design and fabrication of a gallium-nitrate battery at XYZ Corporation's battery manufacturing facility using existing equipment. The battery would then undergo testing including battery charge/discharge cycling at Smith Laboratory. Data analysis would also occur at Smith Laboratory.	Smith Laboratory – State property XYZ Corporation – Private property
Example 2: Capital High School (recipient) 1234 Eagle Lane Golden, CO	High school property in a suburban environment that has been previously disturbed and is owned by the City.	Activities would include the installation of a 50 kW wind turbine adjacent to the football stadium. The final height for the turbine would not exceed 140 feet (hub height) or 170.6 feet (maximum blade height) with a blade radius of 31.5 feet. There is an airport 15 miles away from project site location.	City

2c. In the box below, please identify and describe: (1) any known or potential health and safety hazards to the public or project workers that may result from or are associated with your proposed project; and (2) any efforts that would be taken to mitigate these hazards. <u>Describe individually for each site discussed in Question 2b.</u>

Example (Hazards): The project would involve the use and handling of various hazardous materials, including metals and industrial solvents. All such handling would occur in-lab, and our organization is dedicated to proper hazardous material handling and disposal practices, so the project activities that involve these materials would pose no risk to the public. All hazardous materials would be managed in accordance with Federal, state, and local environmental regulations.

Example (Mitigation): Existing corporate health and safety policies and procedures would be followed, including employee training, proper protective equipment, engineering controls, monitoring, and internal assessments. Additional policies and procedures would be implemented as necessary as new health and safety risks are identified. This would help ensure compliance with applicable health and safety regulations, and minimize health and safety risks to employees and the public.

Explanation:
Hazards: Sila's manufacturing process includes large-scale anode manufacturing at the Moses Lake, WA site and will involve the storage and use of flammable, pyrophoric, and asphyxiant gases. Storage vessels and processing equipment with integrated safety systems will be installed on the property to avoid risk to the public in the unlikely event of upset scenarios. The site will be built to current building, fire, electrical, and mechanical codes. The site will have emissions control devices such as thermal oxidizers, caustic scrubbers, and baghouses on all emission sources. Process emissions will conform with permitting requirements defined and approved by the Washington State Department of Ecology and local regulatory agencies. Because the Moses Lake site will only produce anode material, no metals and other cathode or electrolyte materials will be used. All hazardous materials and wastes will be managed in accordance with federal, state, and local environmental

2d. In the box below, please identify and describe any of the following that would be associated with the proposed project. <u>Describe individually for each site discussed in Question 2b.</u>

(1) any physical modification of existing facilities or construction of new facilities (this does NOT include modification to equipment, only facilities);
(2) ground disturbing activities;
(3) any change in the use, mission, or operation of existing facilities;
(4) installation or deployment of equipment outdoors including the area of disturbance, what currently exists at the site, the dimensions of the installation, any associated infrastructure, etc.

Example 1: Physical modification of existing facilities and ground disturbing activities -To accommodate testing facilities necessary for the project, the current testing facility would have to be expanded by approximately 4,500 square feet.

Example 2: Change in use of existing facility - A room within our facility that has served as a dedicated wind tunnel would be modified to serve as an environmental test chamber. This would require the adaptation of the chamber's construction to partition off part of the room and seal it to allow generated environmental fluctuations within.

Example 3: Installation of equipment outdoors and ground disturbing activities - The proposed turbine location is on school property located in a previously disturbed area south of the existing school building and near the high school athletic facilities and fields. East of the school are two golf courses; south and north are single family residential neighborhoods; and to the west are two public park properties. There are wooded areas located on the school property to the south and west. The foundation of the wind turbine would be approximately 25 square feet with an additional 5 square feet of disturbance during construction. The foundation would be approximately 10-15 feet in depth. There would be a minor, temporary land disturbance adjacent to the proposed site for crane work and the tower staging area. Existing roads would be used to access the project location.

Explanation:

Moses Lake, WA site: Because Sila is the new owner of the existing 613,000-square-foot manufacturing facility and surrounding 162 acres of land, Sila must make modifications to the building and site to allow for the manufacturing of Sila's anode product. 2d(1): Modifications will be required to the existing facility's interior walls, floors, ceilings, and other architectural features to accommodate new equipment and refresh the existing office space. 2d(2) and (4): Installation of equipment and storage vessels outdoors will require ground-disturbing activities to grade previously disturbed areas (formerly agricultural land prior to industrial zoning). These areas will be to the north, east, and south of the existing building, and activities will include the installation of concrete slab service yards or pads for gas storage vessels, abatement systems, cooling water systems, and other equipment. These areas currently include an existing asphalt installation for shipping/receiving truck traffic to the north, as well as a compacted gravel fire road to the north, east, and south of the existing building. The total area of new outdoor installations is estimated at approximately 100,000 square feet. Existing city and county roads, as well as existing private roads on the property, will be used to access the site. 2d(3): The usage and zoning (industrial manufacturing) of the existing facility will remain unchanged, but a change in operation will occur when the facility enters production; the previous owner of the facility had not commenced production prior to the sale to Sila.

Alameda, CA site: Sila has operated the Alameda facility as an R&D and pilot manufacturing facility, and no additional ground disturbing activities or new outdoor equipment installations will occur during the engineering and development of the Project. Minor interior modifications of the existing facility (e.g., new exhaust ductwork in a lab) may be required during the installation of new prototype equipment.

2e. In the box below, please identify and describe any existing, modifications to, or new permits, licenses, or authorizations that would be required to perform project activities (such as environmental permits, operating permits, or drilling permits). <u>Describe individually for each site discussed in Question 2b.</u>

Example 1: The project would generate small amounts of effluent waste which will be discharged into the Potomac River, requiring our organization to secure the requisite discharge permit pursuant to state and Federal regulations.

Example 2: The project activities would be conducted for the next three years. We would be required to replace our current solid waste disposal permit with an updated permit that may alter the nature of what and how we are permitted to dispose of solid waste.

Example 3: The project activities would take place in marine navigable waters and would require permits from the U.S. Coast Guard and the U.S. Army Corps of Engineers.

Explanation:
Moses Lake, WA site: The construction and operation of the manufacturing facility will require new building permits from the City of Moses Lake, obtaining an EPA ID number, and receiving environmental reviews/permits by the state Department of Ecology. Notable permits required from the local regulatory authorities or the Department of Ecology include a stormwater general permit and a new source review with a resulting air emissions permit. Operation of the manufacturing facility will be contingent upon receiving a Certificate of Occupancy from the City of Moses Lake.

2f. In the box below, please list the estimated quantities of materials to be used (e.g., feedstock, chemicals, water) and produced by the project (e.g., biofuel). Describe individually for each site discussed in Question 2b.

Explanation:
Moses Lake, WA site: Significant quantities of solid input material and input gases will be required only after substantial completion of construction in 2024. At this time, Sila projects that the facility will be storing and using the following materials: [redacted] During the commissioning and development phase (mid-2024 to mid-2025), produced silicon anode material will be stored (if meeting QC targets) or scrapped (as non-hazardous waste). During the production phase, with production ramp starting in mid-2025, the facility will produce [redacted] tons of anode material per year.

2g. In the box below, please quantify, to the extent possible, all emissions into the ambient air resulting from project activities. Indicate if the project site is within an attainment or non-attainment area. Describe air emissions individually for each site discussed in Question 2b.

Note: Potential emissions include, but are not limited to, greenhouse gas emissions, particulate matter, and airborne pollutants. Sources of emissions can include stationary sources, such as boilers, process heaters, generators, and/or solvent usage, or mobile sources such as vehicles. It is presumed that every project would result in some emissions being released into the ambient air, so applicants answering "none" must explain why no emissions would be released. Non-attainment areas are designated parts of the country where air pollution levels persistently exceed the national ambient air quality standards. See 42 U.S.C. 7501(2).

Explanation:
Moses Lake, WA site: this site is within an attainment area. Construction activities at the site will produce greenhouse gas emissions and pollutants from vehicle movement and heavy construction equipment; emissions estimates for these activities are not yet available. Beginning with the commissioning and development phase of the facility in 2024, emissions from the anode production process will begin and include: [redacted]

2h. In the box below, please describe: (1) all non-hazardous wastes that would be generated by the proposed project including recycled materials, and (2) the method of their disposal. Describe individually for each site discussed in Question 2b.

Note: It is presumed that every project would generate solid wastes, so applicants answering "none" must explain why no waste would be generated. Non-hazardous waste is any garbage, refuse or trash, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. See 40 C.F.R. § 261.2.

Explanation:
Moses Lake, WA site: The new production facility will generate non-hazardous waste during the construction phase of the Project: metals will be directed to recycling streams or sold as scrap; plastic and foam (from equipment and material packaging) will be directed to recycling streams if appropriate, or transported to landfill by the general contractor; wood scrap and pallets will be sold, donated, or landfilled depending on quality. Construction workers and site personnel will generate personal garbage and refuse as well, to be collected by a contracted waste collection company. During the operation of the production facility, the main source of non-hazardous waste will be rejected or non-conforming anode powder product (either final product or intermediate materials) which will have a dedicated waste stream similar to the process used at Sila's Alameda, CA site. These waste streams will be disposed of through recycling, reuse, and waste-to-energy channels Incoming shipments of raw materials and maintenance components/tools will generate packaging waste, with materials and disposal similar to construction waste described above.
Alameda, CA site: given that the site is an existing R&D and manufacturing facility, the design and engineering Project activities will add a minimal amount of additional garbage or refuse relative to the baseline amount. Similar to the Moses Lake, WA site, Sila's anode powder product (and intermediate materials) produced during Project activities will be non-hazardous waste and

3. Is the proposed project near, or does it involve, any of the following resources? Please indicate below any and all resources that could be affected by any project activities. (See Attachment 1 to the Environmental Questionnaire for resource definitions.)

- ☐ a. Historical, archeological, or cultural resources (includes listed and eligible resources over 50 years old or of cultural significance)
- ☐ b. Threatened or endangered species (whether proposed or listed by state or Federal governments), including their habitat
- ☐ c. Marine mammals or essential fish habitat
- ☒ d. Floodplains or wetlands
- ☐ e. Tribal lands or resources of Tribal interest/sensitivity
- ☐ f. Ocean resources (e.g., coral reefs)
- ☐ g. Land resources (e.g., tundra, rainforests)
- ☐ h. Coastal zones
- ☐ i. Migratory birds, or Golden or Bald Eagles
- ☐ j. Areas having a special designation (e.g., Federal and state designated wilderness areas, national parks, national natural landmarks, wild and scenic rivers, state and Federal wildlife refuges, and marine sanctuaries)
- ☐ k. Prime farmland, unique farmland, or other farmland of statewide or local importance
- ☐ l. Special sources of water (e.g., sole source aquifers)

If you checked any boxes above, provide a detailed description of: (1) the resources that could be affected, and (2) how project activities may affect those resources.

Explanation:
The Moses Lake, WA property includes small Category III and IV wetlands on private property. These wetlands are detailed in an updated Wetland Delineation Map commissioned by Sila in 2022. Construction and plant operational activities are planned such that they will not impact the wetlands.

4. **Does the proposed project involve any of the following activities or areas of concern? Please indicate below any and all activities or areas of concern that exist in the vicinity of your project, are required for your project, or could affect your project.** (See Attachment 1 for definitions of each activity or area of concern.)

- [x] a. Clearing or excavation
- [ ] b. Dredge and/or fill
- [ ] c. Pre-existing contamination
- [ ] d. Pesticide use
- [ ] e. Asbestos or lead-based paint
- [ ] f. Polychlorinated biphenyls (PCBs)
- [ ] g. Navigable air space
- [ ] h. Underground storage tanks
- [ ] i. Underground extraction/injection
- [ ] j. Use of a non-renewable resource

If you checked any boxes above, provide a detailed description of: (1) each activity or area of concern, and (2) the effects of each activity or area of concern on your project and/or the surrounding area.

Explanation:
Clearing and excavation will occur to construct service yards and equipment pads during construction activities at the Moses Lake, WA site, as discussed in section 2(d). Underground utilities, including electrical conduit, water piping, and natural gas piping, have been identified and will be protected during all ground disturbance activities.

5. Would the proposed project have the potential to result in impacts to the surrounding community? Please indicate below all areas of concern that exist in the vicinity of your project, are required for your project, or could affect your project.

- [x] a. Visual impacts
- [ ] b. Populations of low income or minorities (Environmental Justice)
- [x] c. Changes in local employment
- [x] d. Changes in local traffic patterns or density
- [ ] e. New transportation access
- [ ] f. New utility lines or right-of-ways
- [ ] g. Other impacts

If you checked any boxes above, please provide a detailed description of: (1) the communities affected, and (2) what effects the project would have.

Explanation:

Moses Lake, WA site:

Visual impacts: Equipment installations will include storage tanks visible from public roads as well as one or more stacks from abatement units that are taller than the existing 60-foot structure height. An industrial site immediately west of the facility includes buildings and features up to 200 feet tall. The new features will be visible by agricultural neighbors of the site and local traffic.

Changes in local employment: The Project will employ construction workers in the region as well as 80 full-time employees for the first phase of production and up to 250 full-time employees for later phases. Sila will leverage the local Moses Lake community and educational institutions (local community college and trade school) to staff and operate the facility. The expected job areas include manufacturing, engineering, maintenance, supply chain, quality, warehouse operations, IT, and EH&S. Sila estimates that this will include up to 145 entry-level jobs in manufacturing technicians, maintenance technicians, EH&S technicians, information technology, and warehouse operations.

Changes in local traffic patterns or density: construction at the site will increase traffic to the site in the 2023-2024 timeframe. When the plant enters full-scale production, worker vehicles, truck deliveries of raw materials, and truck pickups of finished product will increase traffic density to the site. A transportation study will be conducted with input from city and county officials during the Project's design phase. Given the extremely low traffic density on the existing rural roads, no significant impact findings are expected. The site includes a dedicated rail spur to the Columbia Basin Railroad; utilizing this mode of transportation will be considered as an alternate means to mitigate the need for truck deliveries and shipments.

6. Would the proposed project use, result in, or require the management, storage, transport, or disposal of radioactive, toxic, or hazardous chemicals, waste, or other materials that require special handling?

Note: Hazardous chemicals and materials include those which, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may increase the risk of mortality or pose a substantial threat to human health or the environment when improperly stored, transported, disposed of, or otherwise managed.

Yes [x] | **No** [ ]

If you checked "Yes," please provide a detailed description of: (1) the materials; (2) approximate quantity of each; (3) their role in the project; and (4) storage, transport, and disposal procedures for each material.

Explanation:

Moses Lake, WA site: Several input gases to the anode production process, discussed in section 2(f) with estimated quantities, are considered hazardous materials. These materials are currently stored and used at the Alameda, CA site in the pilot line; they are transported, stored, and used according to relevant NFPA, CGA, and local fire code guidelines. During construction of the site, hazardous materials such as excess paint or solvents will be directed to the local waste facility by the general contractor for disposal or recycling. Three categories of hazardous waste from the operating production facility are identified: [redacted] This material will be collected, stored, and disposed of in accordance with hazardous waste regulations. The second hazardous waste material is [redacted] This [redacted] will be captured on-site and sent to an off-site disposal facility. The third waste stream will be small quantities of solid and liquid waste from on-site maintenance activities and the on-site analytics lab that tests intermediate and final material properties. This waste stream is fully documented at the existing Alameda, CA site. Procedures for transport, storage, and disposal of all materials will be transferred before the plant enters the production phase.

7. Would the proposed project involve the use or development of recombinant DNA or genetically engineered microorganisms, plants, animals, or similar technologies?

Yes ☐ | **No** ☒

If you checked "Yes," please provide a detailed description of: (1) the genetic modifications, (2) the safety procedures in place for their handling and use over the course of the project, and (3) how they would be disposed of at the project's conclusion.

Explanation:

DocuSign Envelope ID: E417BD10-59F7-4BA8-A7D2-16E0D9B0D39F

8. Does the project involve the use of any nanoscale materials or nanotechnology?

Note: Nanotechnology is defined as research and technology development at the atomic, molecular, or macromolecular levels using a length scale of approximately one to one hundred nanometers in any dimension; the creation and use of structures, devices and systems that have novel properties and functions because of their small size; or the ability to control or manipulate matter on an atomic scale.

Yes ☐ | **No** ☒

If you checked "Yes," please describe: (1) the nanoscale materials used, (2) potential risks those materials may pose, and (3) how they would be disposed of.

Explanation:

9. Is there any public opposition concerning any of the project activities?

Yes ☐ | **No** ☒

If you checked "Yes," please describe the nature of the opposition and any actions you may have taken or plan to take to address it.

Explanation:

10. Would the project involve activities or deployments into marine/freshwater aquatic environments?

Yes ☐ | **No** ☒

If you checked "Yes," please provide a detailed description of: (1) the proposed activities or deployment, (2) where and when these activities would occur, and (3) what permit/authorizations have been or would be acquired for this activity.

Explanation:

11. Would the proposed project result in a discharge of any type of wastewater, pollutant, or contaminant, including thermal discharges, to a sewer system, stormwater system, soils, retention ponds, or any water resources (e.g., surface water, including lakes, rivers, creeks, and wetlands; and ground water)?

Note: Under Federal law, the term "pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. See 33 U.S.C. § 1362(6). The term "contaminant" means any physical, chemical, biological, or radiological substance or matter in water. See 42 U.S.C. § 300f(6).

Yes ☒ | **No** ☐

If you checked "Yes", please quantify and characterize the wastewater or pollutants and provide a detailed description of the: (1) wastewater, pollutants, or contaminants to be released; and (2) the water resources that may be affected.

Explanation:

Moses Lake, WA site: construction workers and plant workers will produce human waste/sewage, which will be discharged via the existing connection to the city sewer system, which leads to a local water treatment plant. Sila's plant design will provide the necessary engineering controls to prevent the discharge of any process effluent, liquids, or solids to the local environment that could impact water, soil, or groundwater. Existing on-site stormwater retention features currently capture rainwater from impervious surfaces; these retention features may need to be enlarged depending on additions of impervious surfaces (concrete yards, parking areas) to the site. Discharges to water resources are not anticipated.

12. Would the proposed project have the potential to generate noise impacts to adjacent communities, employees working at the project site, wildlife, and/or sensitive receptors including hospitals, schools, daycare facilities, and elderly housing?

Yes ☒ | **No** ☐

If you checked "Yes", please provide a description of: (1) the receptors that may be impacted and their estimated distance from the project activities, (2) the level of noise generated (in A-weighted decibels (dbA)) to each receptor, and (3) anticipated duration.

Explanation:

Moses Lake, WA site: Industrial equipment used in anode material production will likely generate noise impacting on-site employees; Sila's goal is to use noise dampening technology to reduce noise as much as practical, but it is likely that work in some areas will require a hearing conservation program including the use of hearing protection. No noise impacts are anticipated outside of property lines. There are no known sensitive receptors in the rural area of the site.

13. Please provide a detailed description of how the project would be decommissioned, including the disposition of equipment and materials.

Explanation: Moses Lake, WA site: Decommissioning of the production plant would begin with the purging and safe shutdown of process equipment and gas lines to a cool, inert state. After the EHS and plant management teams have verified safe shutdown, the facility lockout-tagout (LOTO) procedures would be followed to isolate energy sources from all equipment. Residual gases would need to be safely removed from storage vessels; the gas supply companies would be able to reclaim the remaining gas volumes. For example, [redacted] Air monitors would be employed during decommissioning to alert workers of any hazardous gas releases. A hazardous materials consultant or decontamination specialist would certify that vessels are empty before removal.

If the Project were being decommissioned due to Sila's moving to another facility, equipment and [redacted] would be partially disassembled and transported to the new facility for installation in a new production line. If the Project were being decommissioned for any other reason, equipment would be decommissioned using the following steps, which Sila has performed for obsolete equipment at the Alameda, CA site: A decontamination specialist would be employed to safely decontaminate potentially hazardous piping and wetted equipment (notably [redacted] if further treatment is necessary, this piping and equipment would be capped and transported to a registered cleaning facility for final decontamination prior to disposal; non-hazardous equipment would be auctioned from the site using an industrial auction house; any remaining equipment would be sold into the scrap market or disposed of/recycled to the proper waste streams. A site environmental specialist would be employed to perform a Phase 1 environmental site review to identify any potentially contaminated areas of the site, with subsequent actions for remediation. After these steps, the facility would remain an empty shell for a new buyer, in a similar condition to the state in which Sila purchased the facility.

Alameda, CA site: Given the primary Project activities at this site are design and engineering, no significant decommissioning activities would be anticipated. Any small prototype equipment developed during the Project would be decontaminated, disassembled, and sold or disposed of as described above.

SECTION IV. CERTIFICATION

I hereby certify that I am authorized to submit, and I do so hereby submit, the information in this questionnaire on behalf of the Recipient named below. I certify that the information provided herein is accurate and complete as of the date shown below. I understand that false statements or misrepresentations may result in civil and/or criminal penalties under 18 U.S.C. § 1001. If I receive any information that would indicate that any of the above-referenced answers are no longer correct or complete, I agree to notify EERE immediately. If it is necessary for EERE to modify the information I provide, EERE will request that I recertify the revised form.

Name	Bill Mulligan
Title	COO
Applicant	Sila Nanotechnologies
Signature	Bill Mulligan
Date	June 28, 2022

DocuSign Envelope ID: E417BD10-59F7-4BA8-A7D2-16E0D9B0D39F

EERE ENVIRONMENTAL QUESTIONNAIRE
ATTACHMENT 1

Definitions for Question 3 –Resources*

Historical, Archeological, or Cultural Resources. The National Historic Preservation Act; the Historic Sites, Buildings and Antiquities Act; the American Indian Religious Freedom Act; and the Archeological Recovery Act provide for the preservation of sites, buildings, structures, or objects of historic, archeological, or architectural significance designated by Indian, Federal, state, or local governments or listed or eligible for listing on the National Register of Historic Places. The Archeological Resources Protection Act, Antiquities Act, and Native American Graves Protection and Repatriation Act also apply if the proposed project is on Federal and tribal land. This item should be checked "yes" if a proposed project is in an area that meets any of the above, or if an archeological survey has not been performed. Provide documentation of any consultation or State Historic Preservation Officer determination letters if available. If this information is not available or a survey has not been conducted recently, DOE may require such a survey to be conducted prior to any proposed project implementation.

Threatened/Endangered (T/E) Species and/or Critical Habitat. The Endangered Species Act provides for protection of animals, birds, fish, plants, and other living organisms that are in danger of extinction. A list of T/E species is provided in 50 C.F.R. Part 17. Consultations with the U.S. Department of Interior Fish and Wildlife Service (FWS), National Marine Fisheries Services (NMFS), and the corresponding state agency should be documented. This item should be checked "yes" if any state- or Federally-listed or proposed threatened or endangered species or critical habitat is located in the proposed project area, or could be indirectly affected by the proposed project. If the status of T/E species at the proposed project location is unknown, please contact the local or state office of the FWS or NMFS to obtain a listing of potential species and habitats found in the area.

Floodplains. Floodplains are lowlands adjoining inland and coastal waters with a 1 percent or greater chance of inundation in any given year. Indicate "yes" if the proposed project location is in or adjacent to a floodplain area. If documentation is available noting the floodplain boundaries, please provide a copy. Appropriate documentation of the 100 year floodplain [or 500 year floodplain for critical actions**] boundaries include: Flood Insurance Rate Maps or Flood Hazard Boundary Maps prepared by the Federal Emergency Management Agency (FEMA) of the U.S. Department of Homeland Security. Executive Order 11988 Floodplain Management requires Federal agencies to avoid incompatible development in floodplains, and consider the conformance of the proposed project to floodplain standards, potential effects of the proposed projects on floodplains, and potential effects of floodplain modifications on other local properties and improvements.

** Critical actions as defined in the Implementing Guidelines to Executive Order 11988 are activities for which chance of flooding is too great.

Wetlands. Wetlands are areas inundated by surface or groundwater with a frequency sufficient to support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction, [10 C.F.R. 1022.4]. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflow, mudflats, and natural ponds. Man-made ponds can qualify as wetlands if invasion of appropriate flora or fauna has occurred. Appropriate documentation of presence or absence of wetlands within the area of project effect includes: FWS National Wetlands Inventory; U.S. Department of Agriculture Soil Conservation Service Local Identification Maps; U.S. Geological Service (USGS) Local Identification Maps; USGS Topographic Maps; state wetland inventories; and regional or local government sponsored wetland and land use inventories. Executive Order 11990 Protection of Wetlands requires Federal agencies to consider the effects of proposed projects on wetlands, and to avoid, to the extent possible, destruction and modification of wetlands. If the status of land in or around the proposed project location is unknown, please contact the state or local U.S. Army Corps of Engineer's office.

DocuSign Envelope ID: E417BD10-59F7-4BA8-A7D2-16E0D9B0D39F

Coastal Zones. Coastal zones are the coastal waters and adjacent shore lands of the Great Lakes, and the Atlantic, Pacific, and Arctic Oceans, Gulf of Mexico, and Long Island Sound. The term "coastal state" includes the states bordering on those bodies, plus Puerto Rico, the Virgin Islands, Guam, the Commonwealth of Northern Mariana Islands, and the Trust Territories of the Pacific Islands and American Samoa. Coastal states have authority regarding actions, which directly affect coastal zones, in accordance with the Department of Commerce regulations promulgated under the Coastal Zone Management Act. Federal activities and Federal development projects must be consistent with state coastal zone management (CZM) programs to the maximum extent possible. Federal activities are those performed by or on behalf of a Federal agency in the exercise of its statutory responsibilities. Indicate "yes" if the proposed project is located in a coastal zone State or is in the vicinity of a coastal zone State. If a consistency determination has been obtained, or a written "negative determination" (indicating that a consistency determination is not required) please provide a copy. See 15 C.F.R. 930.

Migratory Birds, Golden or Bald Eagles. Other Federal and state laws that protect wildlife species include the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Examples of protected migratory birds include Canadian geese and great blue herons. This item should be checked "yes" if the proposed project may directly or indirectly impact any of these species or their habitats. If the status of other protected species is unknown in the proposed project location, please contact the local or state office of the FWS to obtain a listing of potential species and habitats found in the area.

Areas Having a Special Designation. Various Federal laws restrict the ability of Federal agencies to aid developments affecting national wilderness areas, national memorial parks, national parks, national monuments, national primitive areas, national preserves, national recreational areas, national wild and scenic rivers, national grasslands, national wildlife refuges, national forests, national lakeshore or seashore, and national trails. Indicate "yes" if any of these areas of special environmental or natural significance is located in close proximity to the proposed project location and describe the specific special designation.

Prime Farmland, Unique Farmland, or Other Farmland of Statewide or Local Importance. The Farmland Protection Policy Act requires Federal agencies to consider ways to lessen the effects of proposed projects that convert or adversely affect prime farmland which is not currently classified or designated for future urban development or water storage. Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Prime farmland also includes land that possesses the above characteristics, but is being used currently to produce livestock and timber. Prime farmland does not include lands designated for future urban development, such as land that has been identified for commercial, industrial, or residential development by zoning code, ordinance, or a comprehensive land use plan [7 U.S.C. 4201(c)(1)]. The U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) field office serving the area can provide assistance in determining whether a proposed location or site meets the definition of prime farmland. Form AD 1006, the Farmland Conversion Impact Rating Form, available at NRCS offices, should be used for this purpose.

Special Sources of Water. Through the Safe Drinking Water Act, EPA and states designate Critical Aquifer Protection Areas and Sole or Principal Source Aquifers, and State-Designated Wellhead Protection Areas in accordance with 42 U.S.C. 300h-6(b), 42 U.S.C. 300h-3(e), and 42 U.S.C. 300h-7(e), respectively. Such areas are accorded special protection to assure the quality and availability of public water supplies. Indicate "yes" if the proposed project is located in an area designated for protection (e.g., is included in an area wide groundwater quality protection plan), or would constitute a potential source of contamination within an existing or expected wellhead protection area serving a public water supply. If aquifer designations are not known for the proposed project area, contact the environmental protection office for the State.

* Definitions and requirements are subject to regulatory changes.

DocuSign Envelope ID: E417BD10-59F7-4BA8-A7D2-16E0D9B0D39F

Definitions for Question 4 – Activities or Areas of Concern*

Clearing or Excavation. Clearing or excavation refers to the removal of vegetation, soil, sediments, or disturbance of land surfaces and subsurface including cutting, burning, digging, grading, filling, or blasting. Provide the estimated area to be affected, the quantity of material to be added or removed, and the planned disposition of spoils. Describe the potential for runoff or erosion, any control techniques to be employed, and the distance to nearby surface water bodies, including wetlands.

Dredge and/or Fill. Dredge and/or fill are the excavation of material from waters of the United States. Filling is the discharge of material into waters of the United States to change the bottom elevation. Waters of the United States are all interstate waters, and intrastate lakes, rivers, streams, mudflats, wetlands, sloughs, plays, or natural ponds. These activities include "ocean dumping" as regulated under Sections 102 and 103 of the Clean Water Act, construction of dams, dikes, piers, or others that could alter the course of waters of the United States. Also included is any shore activity with the potential for runoff to waters of the United States. If available, include documentation of appropriate consultation(s), e.g., with the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act or Sections 9 and 10 of the Rivers and Harbors Act; and with EPA [40 C.F.R. Parts 220-233].

Pre-Existing Contamination. Indicate if the proposed project will disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment. Quantify and characterize such pre-existing substances, including whether they are present above background or regulatory levels. Also quantify the volume of contaminated materials (e.g. soil, sediment, groundwater, debris, etc.) which would require transport to a properly permitted treatment, storage, or disposal facility as the result of the proposed project.

Pesticide Use. A pesticide is a substance intended for preventing, destroying, repelling, or mitigating any type of pest including insects, rodent, nematode, fungus, or weed, and any substance intended for use as a plant regulator, defoliant, or desiccant. While the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) imposes no requirements on private applicators, commercial pesticide applicators must be certified by the state or U.S. EPA. Additionally, FIFRA requires that certain pesticides known as “restricted use pesticides” (listed in 40 C.F.R. 152.175) to only be applied by certified applicators. If either commercial or private pesticide application or the utilization of restricted use pesticides is anticipated, indicate "yes". If a private application is anticipated, document measures to be undertaken to assure safe storage, use, and disposal.

Asbestos. If the proposed project includes demolition or renovation of an existing building, you must determine if asbestos is present. Common asbestos-containing building materials may include but are not limited to floor tile, mastics, wall board, joint compound, acoustic ceiling tiles, thermal insulation, spray-on fire proofing, glazing, caulking, roof flashing, and felts. Demolition and renovation activities that may impact asbestos containing building materials are regulated by the U.S. Occupational Health and Safety Administration (OSHA) through the Asbestos in Construction Standard and asbestos air emissions from asbestos abatements are regulated by the EPA as a hazardous air pollutant under the Clean Air Act (CAA). Include a description of measures to be undertaken to comply with asbestos removal requirements of 29 C.F.R. 1926.1100 and 40 C.F.R. 61 (Subpart M).

Polychlorinated Biphenyls (PCBs). PCBs are a family of man-made organic chemicals that were domestically manufactured from 1929 until banned in 1979 due to their toxicity and persistence in the environment. Given their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were largely used as dielectric and coolant fluids in transformers, capacitors, electric motors, etc. Manufacture, processing, transport, use, marking, storage, and disposal of PCBs are regulated by EPA [40 C.F.R. Part 761] in accordance with the Toxic Substances Control Act. Some states also regulate PCBs as hazardous waste. If the proposed project involves replacement or removal of capacitors, transformers, voltage regulators, circuit breakers, switches, cables, electromagnets, or other electrical equipment, presence or absence of PCBs should be ascertained. A "yes" indication

DocuSign Envelope ID: E417BD10-59F7-4BA8-A7D2-16E0D9B0D39F

should be supported with information on the anticipated concentration and quantity of PCB oil, and the intended method/location of disposal.

Navigable Air Space. The U.S. Department of Transportation Federal Aviation Administration (FAA) regulates objects which invade navigable air space or otherwise constitute an obstruction to air navigation, and determines whether such activities constitute a navigation hazard. Indicate "yes" if the proposed project involves construction or alteration more than 200 feet above ground level, any construction or alteration in instrument approach areas, and other construction or alteration identified in 14 C.F.R. 77.13. Document notification of the appropriate Manager, Air Traffic Division, of the FAA Regional Office for the area within which the construction or alteration will be located. Copies of FAA Form 7460-1 Notice of Proposed Construction or Alteration may be obtained from the regional FAA office or electronically through FAA's website.

Underground Storage Tanks. Indicate "yes" if 10 percent or more of tank volume (including the volume of underground pipes) will be beneath surface of the ground. Indicate if installation, use, or removal of underground storage tanks is anticipated, and whether tank use is/was for storage/collection of hazardous waste, heating oil, other petroleum or petroleum-based substances, stormwater, or wastewater. Describe any leak detection/monitoring methods to be used for storage of hazardous waste or regulated petroleum products like gasoline or diesel.

Underground Extraction/Injection. Underground extraction/injection is the subsurface emplacement of fluids through a bored, drilled, or driven well, or through a dug well where the depth of the well is greater than the largest surface dimension. If the proposed project involves construction or use of an injection well, indicate "yes," and describe the class of the well as defined in 40 C.F.R. 146.5, the type and quantity of contaminants (e.g., waste disposal, hydrocarbon or mineral extraction) and whether the injection involves an exempt aquifer as defined in 40 C.F.R. 146.4.

Use of a Non-Renewable Resource. Non-renewable resources are naturally occurring substances (e.g., metals, minerals, fossil fuels) that are in limited supply and cannot be replaced or regenerated. The exhaustion or threatened exhaustion of such resources could have significant ramifications. Indicate "yes" if the proposed project would involve a resource that is in limited supply.

* Definitions and requirements are subject to regulatory changes.

Sila Nanotechnologies Environmental Volume

I. GENERAL

II. CONTENT

A. ENVIRONMENTAL INFORMATION DESCRIBING THE PROJECT AND THE PROJECT SITE(S).

1. Summary

At the Moses Lake, WA site, the Project includes the construction of a silicon anode manufacturing facility within an existing building/site. Activities will include architectural, mechanical, electrical, structural, and civil improvements; equipment installation and commissioning (including analytics equipment); and the startup of the manufacturing facility. Anode material will be packaged at this location and shipped to downstream customers. [redacted]

Sila has received an overwhelmingly positive response from the City of Moses Lake and the State of Washington since the site was purchased in April 2022. It is clear that the region and the state are proud to host a company that is bringing American manufacturing to the electric vehicle industry. The Project will create high-quality jobs that provide opportunities for growth of the Moses Lake / Grant County skilled workforce. In addition to providing full-time jobs for the operation of the plant, the Project will employ hundreds of construction workers from the region during the construction and commissioning phases.

Construction activities will rely on known construction methods and technologies and do not pose major risks. Commissioning and operation of the new production tools represent a commercial risk, as the anode production process technology would be a scale-up of known processes at Sila's Alameda, CA site (which has been operational since 2017); throughput or product quality risk is always present when scaling new technology. During the operation of the plant, there is the inherent risk of operating processes using hazardous gas input materials. Health, safety, and environmental risks associated with an operating manufacturing plant will be effectively managed through engineering controls, quality compliance programs, and personnel training and education. Plant operations will include permitted air emissions and significant environmental impacts to the site or the region are not expected.

At the Alameda, CA site, Project activities include engineering and development of the specialized production tooling and processes required for silicon anode material manufacturing. Activities related to the Project will include the design, assembly, and testing of prototype equipment that will be used to support the development of the Moses Lake site. At this location, anode material is analyzed and incorporated into battery cells that are then tested (using charge/discharge cycling) for energy density, cycle life, and other characteristics. Project activities at this site were started in late 2021 and will continue through the startup and production ramp of the facility starting in mid-2025. Given the limited activities that will occur at the Alameda facility that pertain to the Moses Lake site, the Alameda site is not discussed in detail in this Volume. The Alameda site is Sila's existing corporate headquarters, and changes to the physical plant and surrounding environment due to Project engineering activities will be minimal.

2. Proposed Project and Its Alternatives

a. Proposed Project

The proposed Project is a [redacted] silicon anode manufacturing facility in Moses Lake, WA with an anticipated Start of Production in May 2025. Sila has already acquired a 162-acre site with an existing 613,000-square-foot building for this Project to accelerate the construction phase. [redacted]

Modifications will be required to the existing facility's interior walls, floors, ceilings, and other architectural features to accommodate new equipment and refresh the existing office space. Installation of equipment and storage vessels outdoors will require ground-disturbing activities to grade previously disturbed areas (formerly agricultural land prior to industrial zoning). These areas will be to the north, east, and south of the existing building, and activities will include the installation of concrete slab service yards or pads for gas storage vessels, abatement unit systems, cooling water systems, and other equipment. [redacted] Additional land or disturbance of natural resources beyond the existing site is not required for the Project.

The Moses Lake site plan is shown below in **Figure EIV-1**, with the main 613,000-square-foot building surrounded by a fire access road and several asphalt and concrete parking areas. The 162-acre site is comprised of four land parcels that historically were part of multiple farm units defined in the Bureau of Reclamation's Columbia Basin Project. Access to the site is from the west, from Road N NE. The eastern diagonal border of the site is defined by a rail line. The site includes small designated wetlands with required setbacks, which will be adhered to during the plant's construction and operations.

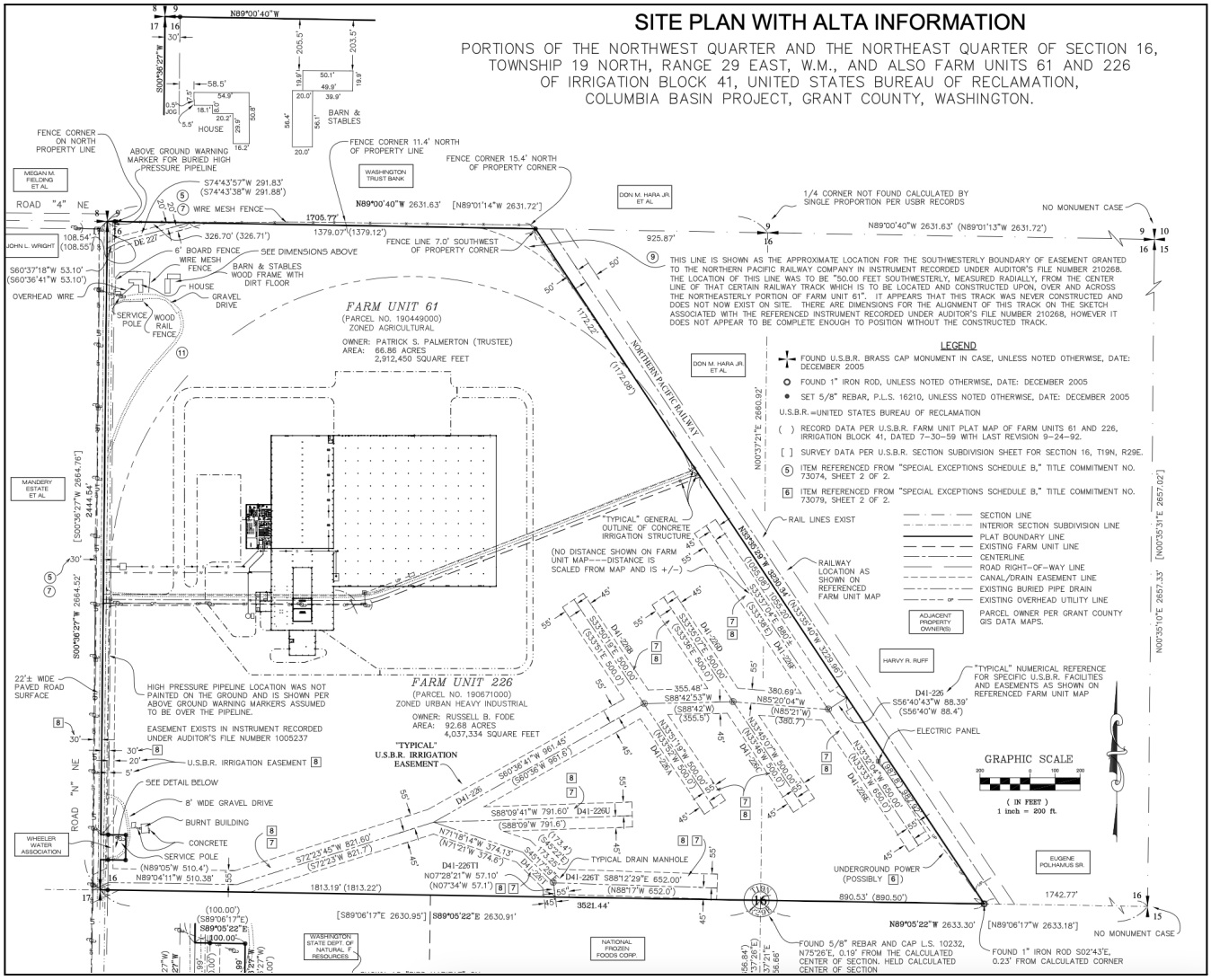

Figure EIV-1: Moses Lake Site Plan

A portion of the site topographic map from the 2022 ALTA survey is shown below in **Figure EIV-2**. The main building lies at 1248 feet above sea level, with gently sloping topography to the property lines. There are no major topological features on the site.

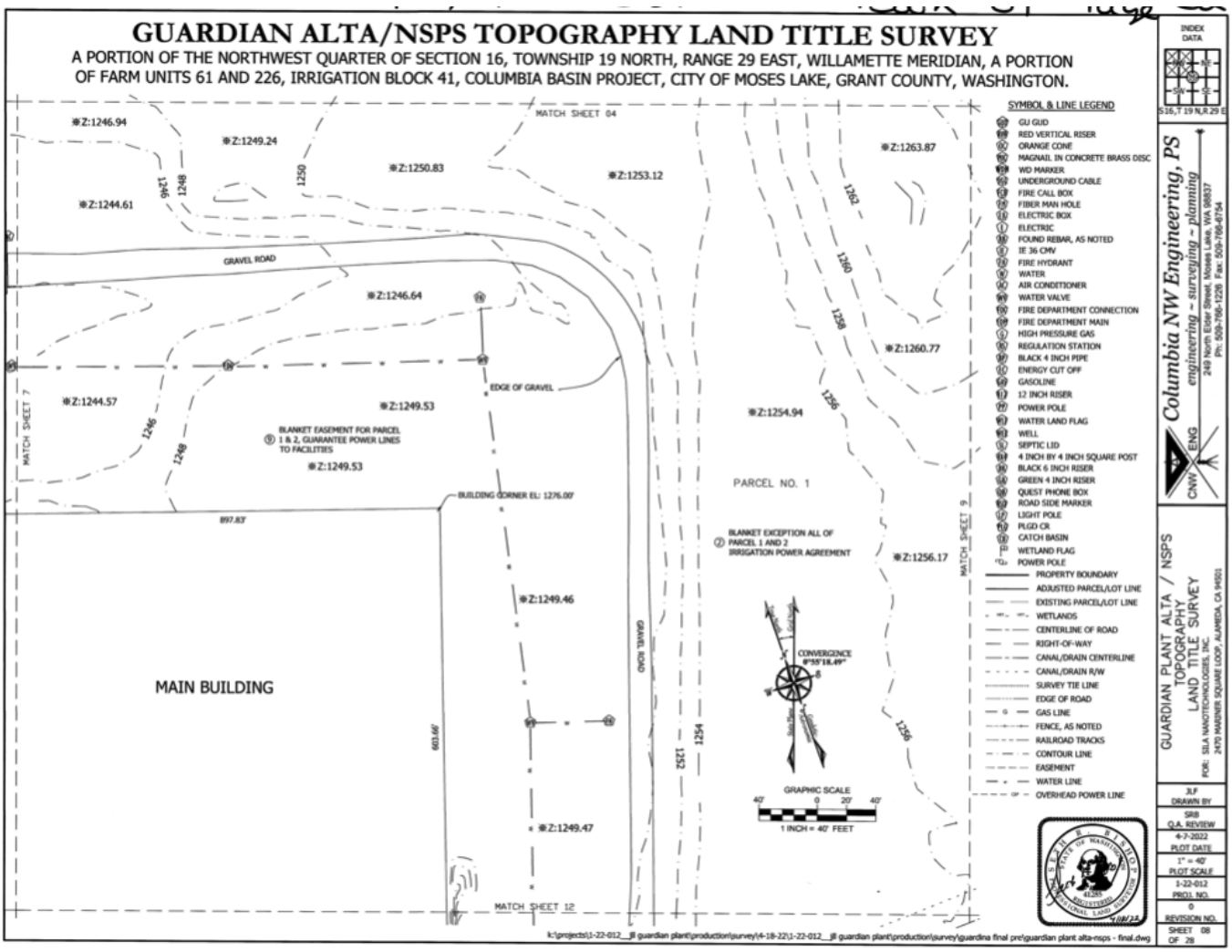

Figure EIV-2: Topographic Map of Project Site

In addition to activities at the Moses Lake site, engineering and development of the specialized production tooling and processes required for silicon anode material manufacturing will occur at Sila's headquarters in Alameda, CA. Activities include design and definition of production equipment prior to equipment fabrication at supplier facilities and final delivery to the Moses Lake site. No additional off-site facility requirements are expected for the duration of the Project.

b. Alternatives to Proposed Project

[redacted]

[redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

[redacted]

3. Existing Environment

a. Land Use

Sila recently purchased the existing 613,000-square-foot manufacturing facility and surrounding 162 acres of land in Moses Lake, WA, as described in Section 2(a). A current satellite image of the existing site is shown below in **Figure EIV-3**.

Figure EIV-3: Satellite Image of Moses Lake Site

In addition to the large existing on-site building, there is an existing asphalt installation for shipping/receiving truck traffic to the north, as well as a compacted gravel fire road to the north, east, and south of the building. Existing city and county roads, as well as existing private roads on the property, are used to access the site.

Water and natural gas pipelines maintained by the City of Moses Lake are located underground along Road N NE at the western property line. These utilities are connected to the building via underground pipelines from Road N NE. Electrical transmission lines are located above ground along Road N NE; power lines enter the Project site underground at the southwest corner of the site.

Road N NE is the only road access to the Project site. The site includes a dedicated rail spur to the Columbia Basin Railroad (CBRR) network. The spur connects the CBRR rail line (running northwest to southeast along the site's eastern border) into the southernmost section of the building. There is no barge or water access.

b. Atmospheric Conditions/Air Quality

The Project site is within the jurisdiction of the Eastern Regional Office of the Washington State Department of Ecology. It is in an attainment area for EPA National Ambient Air Quality Standards (NAAQS).

The Project site area around Moses Lake has a dry climate and is classified as semi-arid. Average minimum temperatures are as low as 22°F in January, while average maximum temperatures are as

high as 88°F in July. The annual average precipitation is 7.7 inches. Rainfall is fairly evenly distributed throughout the year; the wettest month is December with an average rainfall of 1.2 inches.

c. Hydrologic Conditions/Water Quality

The site includes portions of multiple farm units defined in the Bureau of Reclamation's Columbia Basin Project. The Columbia Basin Project, via the Grand Coulee dam and other hydrological features, supplies irrigation water and hydropower to the region from the Columbia River. Downstream drainage from the site is to groundwater; the overall Columbia Basin irrigation system returns water to the Columbia River near Pasco, WA. Groundwater quality near the Project site is not known by Sila. However, groundwater is pumped by local municipalities for distribution to the community.

There are no constraints on water availability other than working with the city water utility on capacity planning. There are no existing wastewater treatment or disposal facilities at the site.

d. Geologic/Soil Conditions

A 2005 geotechnical report of the site commissioned by the original site developer reports the following stable conditions: "General surficial geology in the vicinity of the Project area is described as a mixture of fine to coarse sand and silt, overlying basalt rock. The Washington Division of Geology and Earth Resources "Geologic Map of the Moses Lake 1:100,000 Quadrangle", indicates the site is underlain by Quaternary Age sand and silt consisting of "horizontally bedded or laminated lacustrine fine sand and silt, which contain lenses of basaltic sand and gravel and ice-rafted erratic boulders...deposited in low-energy slackwater environments created by temporary ponding of glacial outburst floodwaters."

Test bores performed by GeoEngineers for the 2005 report "encountered generally similar subsurface conditions to the depths explored and characterized the soil into three general units, including: 1) silty sand; 2) silt with variable sand content; and 3) caliche." Unique soil species are not present. The site was characterized as a "Class D" classification, which is a moderate seismic class. Given the gently sloping topography and ground cover by grasses, the site's susceptibility to erosion is expected to be low.

e. Vegetation and Wildlife Resources

A February 2022 survey by GeoEngineers (out of Tacoma, WA) identified three small wetland areas on the property: Wetland A (Category III) on the northwest corner of the property, and Wetland B (Category III) and Wetland C (Category IV) on the southeast corner of the property. Wetland A appears to be fed from another wetland feature on the eastern side of the off-site railroad tracks and is primarily occupied by cattails with sporadic patches of common reed and reed canary grass on the western side of the wetland. The edges of the wetland are comprised of three-square bulrush, jointed goatgrass and knapweed. Wetlands B and C are hydrologically fed from off-site irrigation and wetland features. Wetlands vegetation is present on the eastern portion of the site with cattail, reed canary grass, and sandbar willow. The central and western portions of the wetlands are covered in fallow wheat stubble and volunteer wheat sprouts. There are no state and Federally listed endangered or threatened species present on the site.

f. Socioeconomic Conditions

The Project site is located in Grant County, WA. As of 2020, the region's population increased by 5.5% since 2015, growing by 5,172. Population is expected to increase by 4.0% between 2020 and 2025, adding 3,962. From 2015 to 2020, jobs increased by 2.7% in Grant County, WA, from 42,996 to 44,139. This change fell short of the national growth rate of 6.2%. As the number of jobs increased, the labor force participation rate increased from 61.4% to 73.0% between 2015 and 2020. Concerning educational attainment, 11.3% of Grant County, WA residents possess a Bachelor's Degree (7.8% below the national average), and 7.9% hold an Associate's Degree (0.3% below the national average). The top three industries in 2020 are Crop Production, Education and Hospitals (Local Government), and Local Government, Excluding Education and Hospitals.

The labor force in Grant County is summarized below in **Figure EIV-4**.

Grant County, WA	Population
Population	98,697
Total Working Age Population	74,684
Not in Labor Force (15+)	20,132
Labor Force	54,552
Employed	51,746
Unemployed	2,806
Under 15	24,013

Figure EIV-4: Grant County Labor Force

The largest occupations in Grant County by sector are detailed in **Figure EIV-5** below.

Occupation	2015 Jobs	2020 Jobs	National Average in 2020 Jobs	Change in Jobs	% Change in Jobs	2020 LQ	2019 Median Hourly Earnings	Apr 2020 - Mar 2021 Unique Average Monthly Postings
Farming, Fishing, and Forestry	7,259	6,325	329	(934)	(13%)	19.20	$14.96	31
Transportation and Material Moving	4,193	4,166	3,613	(27)	(1%)	1.15	$17.21	568
Office and Administrative Support	3,698	3,931	5,605	232	6%	0.70	$19.51	203
Sales and Related	3,454	3,631	4,275	178	5%	0.85	$15.53	288
Management	3,583	3,511	2,612	(72)	(2%)	1.34	$37.69	149
Educational Instruction and Library	2,743	3,073	2,491	330	12%	1.23	$23.44	64
Production	3,282	3,036	2,527	(247)	(8%)	1.20	$19.69	89
Food Preparation and Serving Related	2,400	2,893	3,655	493	21%	0.79	$13.39	161
Construction and Extraction	1,578	2,092	2,081	514	33%	1.01	$25.56	30
Installation, Maintenance, and Repair	2,047	2,088	1,716	41	2%	1.22	$24.41	166
Building and Grounds Cleaning and Maintenance	1,439	1,389	1,580	(50)	(3%)	0.88	$16.24	47
Healthcare Support	1,131	1,320	1,887	190	17%	0.70	$15.03	97
Business and Financial Operations	1,015	1,278	2,435	263	26%	0.52	$31.34	86
Healthcare Practitioners and Technical	1,124	1,231	2,436	108	10%	0.51	$35.20	495
Personal Care and Service	895	866	1,283	(29)	(3%)	0.68	$14.40	39
Protective Service	640	617	987	(23)	(4%)	0.63	$31.69	53
Architecture and Engineering	511	544	738	33	7%	0.74	$40.94	71
Computer and Mathematical	356	509	1,315	154	43%	0.39	$37.96	72
Community and Social Service	446	477	759	31	7%	0.63	$25.35	54
Arts, Design, Entertainment, Sports, and Media	373	448	811	75	20%	0.55	$19.51	50
Life, Physical, and Social Science	548	425	385	(123)	(22%)	1.11	$29.97	33
Legal	154	167	368	13	8%	0.45	$38.47	6
Military-only	128	119	250	(9)	(7%)	0.48	$18.92	0

Figure EIV-5: Largest Occupations in Grant County by Sector

g. Historic/Cultural Resources

No known historic, cultural, or archeological places/sites have been identified at the Project site or adjacent to the Project site.

h. Visual Resources

The Project site includes partial views of the Cascade Mountain range to the west. There is no existing aesthetic landscaping in the Project area.

i. Health and Safety Factors

The existing manufacturing structure at the site is currently inactive and does not generate emissions, effluents, or noise.

B. ENVIRONMENTAL IMPACTS OF THE WORK TO BE PERFORMED.

1. Land Use

The usage and zoning (industrial manufacturing) of the existing facility will remain unchanged, but a change in operation will occur when the facility enters production; the previous owner of the facility had not commenced production prior to the sale to Sila.

Sila must make modifications to the building and site to allow for the manufacturing of Sila's anode product. Installation of equipment and storage vessels outdoors will require ground disturbing activities to grade previously disturbed areas (formerly agricultural land prior to the current industrial zoning). These areas will be to the north, east, and south of the existing building and activities will include installation of concrete slab service yards or pads for equipment. These areas currently include an existing asphalt installation for shipping/receiving truck traffic to the north, as well as a compacted gravel fire road to the north, east, and south of the existing building. The total area of new outdoor installations is estimated at approximately 100,000 square feet. Existing city and county roads, as well as existing private roads on the property, will be used to access the site.

Waste disposal problems or effluent discharges requiring settling ponds are not anticipated during the scope of the Project.

2. Atmospheric Conditions/Air Quality

Construction activities at the site will produce greenhouse gas emissions and pollutants from vehicle movement and heavy construction equipment; emissions estimates for these activities are not yet available. Beginning with the commissioning and development phase of the facility in 2024, emissions from the anode production process will begin and include: [redacted] Sila will install necessary abatement devices to reduce our emissions to as low a level as practical. Fugitive emissions of small amounts of [redacted] could also be possible, but filtering and abatement systems will limit emissions to acceptable levels.

Regional changes in air quality are not anticipated due to the Project's abatement strategy, rigorous

emissions modeling studies, and compliance with all emissions standards.

3. Hydrologic Conditions/Water Quality

No changes to groundwater/surface water quality or quantity are anticipated during the Project. Sila's plant design will provide the necessary engineering controls to prevent the discharge of any process effluent, liquids, or solids to the local environment that could impact water, soil, or groundwater. Existing on-site stormwater retention features currently capture rainwater from impervious surfaces; these retention features may need to be enlarged depending on additions of impervious surfaces (concrete yards, parking areas) to the site. The use of storage piles or discharges to water resources is not anticipated.

4. Geologic/Soil Conditions

The Project site contains an existing manufacturing facility and hard surfaces for roads and parking; Project activity on the site is not expected to cause additional subsidence. New impermeable surfaces for service yards and equipment pads will be constructed during the Project, and a stormwater study will be performed to identify any additional stormwater catchment areas (beyond the existing catchments) that may be required as a result.

No streams exist at the site, nor will floodplains be affected. The small wetlands on the site are located at the northern and eastern edges of the property and will not be intruded upon.

5. Vegetation and Wildlife Resources

No impacts to vegetation or wildlife resources are known or expected during the Project. As noted above, small wetlands on the site are located at the northern and eastern edges of the property and will not be intruded upon.

6. Socioeconomic Conditions

Between 80 and 250 high-quality jobs will be created by the Project that will provide opportunities for growth of the Moses Lake/Grant County skilled workforce. The expected job areas include manufacturing, engineering, maintenance, supply chain, quality, warehouse operations, IT, and environmental, health, & safety (EH&S). Sila estimates that this will include up to 145 entry-level jobs in manufacturing technicians, maintenance technicians, EH&S technicians, information technology, and warehouse operations.

In addition to providing full-time jobs for the operation of the plant, the Project will employ hundreds of construction workers from the region during the construction and commissioning phases.

7. Historic/Cultural Resources

No impacts to historic or cultural resources are known or expected during the Project. The local community welcomes the Project for its job creation and positive impact on the community's manufacturing base. The existing manufacturing facility at the Project site has been vacant since construction was completed in 2010.

8. Visual Resources

No significant impacts to visual resources are known or expected during the Project. [redacted]

9. Health and Safety Factors

Industrial equipment used in anode material production will generate noise impacting on-site employees; where noise abatement strategies cannot be implemented a hearing protection program is anticipated for employees who need to access these areas of the plant. No noise impacts are anticipated outside of property lines.

10. Solid and Hazardous Wastes

The new production facility will generate non-hazardous waste during the construction phase of the Project: metals will be directed to recycling streams or sold as scrap; plastic and foam (from equipment and material packaging) will be directed to recycling streams if appropriate, or transported to landfill by the general contractor; wood scrap and pallets will be sold, donated, or landfilled depending on quality. Construction workers and site personnel will generate personal garbage and refuse as well, to be collected by a contracted waste collection company.

During the operation of the production facility, the main source of non-hazardous waste will be rejected or non-conforming anode powder product (either final product or intermediate materials) which will have a dedicated "confidential" waste stream similar to the process used at Sila's Alameda, CA site. These waste streams will be disposed of through recycling, reuse, and waste-to-energy channels Incoming shipments of raw materials and maintenance components/tools will generate packaging waste, with materials and disposal similar to construction waste described above.

During construction of the site, hazardous materials such as excess paint or solvents will be directed to the local waste facility by the general contractor for disposal or recycling. Three categories of hazardous waste from the operating production facility are identified: [redacted] This material will be collected, stored, and disposed of in accordance with hazardous waste regulations. The second hazardous waste material is [redacted] This [redacted] will be captured on-site and sent to an offsite disposal facility. The third waste stream will be small quantities of solid and liquid waste from on-site maintenance activities and the on-site analytics lab that tests intermediate and final material properties. This waste stream is fully documented at the existing Alameda, CA site. Procedures for transport, storage, and disposal of all materials will be transferred before the plant enters the production phase.

11. Impacts on Regional or Local Plans

The Project's primary impact on regional planning is on the local labor force given the increase in jobs for the region. Sila has been in discussions with Moses Lake city council members and local community colleges to plan for the training and hiring of the operations workforce at the plant. Fuel (natural gas), water, and land resources had been previously allocated to the site for a previous owner; Sila's

expected usage does not require additional planning. Air emissions from the Project, as discussed in Section B (2), will be abated below regulatory thresholds and will not affect local air quality plans.

Sila is committed to reducing resource usage and limiting waste streams, both for economic benefit as well as to support Sila's corporate mission to accelerate electric vehicle adoption while limiting harm to the environment. To this end, the Project will [redacted] High utilizations then result in lower volumes of waste streams in air or water emissions. Where applicable, Sila will pursue the option to sell or offload waste products to a downstream user; opportunities for this symbiotic reuse include [redacted] During the engineering phases of the Project, design teams will be constantly evaluating energy and water efficiency solutions to incorporate into the plant.

C. POTENTIAL LIABILITY TO DOE OF EXISTING CONDITIONS AT THE SITE(S).

A detailed due diligence process was completed prior to Sila's purchase of the site and existing structure in Moses Lake, WA. The site was developed starting in 2006, and all necessary utilities, structures, and parking lots were completed in 2010 on behalf of Guardian Fiberglass. However, Guardian opted to not occupy the site due to economic conditions and did not install equipment or start manufacturing processes. Xyleco, a biofuels startup based in Massachusetts, purchased the site in 2015 after a due diligence process. The company installed several large pieces of equipment but did not commence processing or production activities due to the firm's technical and financial challenges. Sila purchased the site in 2022 after a due diligence process that included the following studies/reports:

- Phase 1 Environmental Study (performed and written by Maul Foster Alongi)
- Wetlands Delineation Map and report (GeoEngineers)
- Review of the site's geotechnical report from 2006 (GeoEngineers)
- Commissioning of an ALTA survey as a requirement for title transfer (Columbia Northwest Engineers)
- Review of easements and other claims as part of the title transfer

After reviewing these reports, as well as engaging in discussions with City of Moses Lake officials, Sila's understanding is that there are no conditions that could expose the DOE to previous liability.

D. ABILITY TO MEET COMPLIANCE REQUIREMENTS AT THE SITE(S).

The plant will be designed in accordance with required building and fire codes which will be reviewed and approved by the City of Moses Lake. As part of the permitting process, Sila will complete the State of Washington State Environmental Policy Act (SEPA) checklist which is a review of the site's impact to earth, air, water, wildlife, energy, environmental health, land use, transportation, public services, and utilities. Sila will obtain an EPA ID number for the site and ensure that all waste generated at the site will be managed in accordance with EPA RCRA and State of Washington hazardous and universal waste regulations. Sila will also evaluate options to reduce waste and impact to the environment by [redacted] Any changes to the site will be in accordance with the following: the Clean Water Act (Sections 401/404, Construction and Industrial Stormwater permits, Wastewater Discharge permit); the Endangered Species Act; the Magnuson-Stevens Act; Section 106 of the National Historic Preservation Act (NHPA); and the Grant County Wetlands and Fish and Wildlife Habitat Conservation Areas.

All air emissions sources will be reviewed with the Washington State Department of Ecology. Sila will utilize Best Available Control Technology (BACT) in abatement system design and submit those designs, as well as descriptions of the emissions sources, to the Department of Ecology to obtain the required air permits. The site is in an attainment area for EPA National Ambient Air Quality Standards (NAAQS).

The type and quantity of chemicals and gases that Sila will store and use will trigger compliance with the OSHA Process Safety Management and EPA Risk Management Plan programs. Both programs require audits every three years and comprehensively check that company procedures are in place and are followed by site personnel.

E. EXPERIENCE AND APPROACH TO THE IDENTIFICATION AND RESOLUTION OF ENVIRONMENTAL ISSUES.

1. All directly related education/experience of key project members in each of the following areas:

The following Project members are responsible for environmental management at the Project site. This list is not exhaustive, and additional Sila personnel with relevant education/experience can be provided upon request.

□ **Air quality management**

Jim Dobrzynski: B.S. in Chemistry and over 35 years of EH&S experience, including air, water, and waste permitting for chemical manufacturing, mining, pharma, food, and consumer products

Scott Fife: M.S. in Environmental and Occupational Health with 30 years of EH&S experience, including air permitting and compliance within oil and chemical manufacturing

[redacted]

□ **Surface water and ground water management**

Jim Dobrzynski: B.S. in Chemistry and over 35 years of EH&S experience, including air, water, and waste permitting for chemical manufacturing, mining, pharma, foods, and consumer products

Scott Fife: M.S. in Environmental and Occupational Health with 30 years of EH&S experience, including wastewater management/compliance within oil and chemical manufacturing

[redacted]

□ **Solid and liquid waste management and disposal practices**

Jim Dobrzynski: B.S. in Chemistry and over 35 years of EH&S experience, including air, water, and waste permitting for chemical manufacturing, mining, pharma, foods, and consumer products

[redacted]

□ Noise, land use, ecological resources, archaeological, cultural, and historical resources management

Jim Dobrzynski: B.S. in Chemistry and over 35 years of EH&S experience, including air, water and waste permitting for chemical manufacturing, mining, pharma, foods, and consumer products

Scott Fife: M.S. in Environmental Health and Safety, CIH, with 30 years of experience in EH&S, including industrial hygiene

[redacted]

□ Environmental permit applications, amendments, and renewals

Jim Dobrzynski: BS in Chemistry and over 35 years of EH&S experience including air, water, and waste permitting for chemical manufacturing, mining, pharma, foods, and consumer products

Mark Patterson: 20 years of experience with Bay Area and Gulf Coast refinery capital projects permitting

[redacted]

2. The offeror's experience in addressing and resolving environmental concerns during the performance of past projects of similar size and complexity including the obtaining of necessary permits.

Sila's experience building and operating the existing manufacturing site in Alameda, CA is directly applicable to developing the Project in Moses Lake, WA. At the Alameda site, Jim Dobrzynski was responsible for obtaining permits for air emissions (via the Bay Area Air Quality Management District); stormwater discharge; wastewater discharge (via the East Bay Municipal Utility District); and hazardous materials storage (via Alameda County). The air emissions permit covers Sila's unique anode processes which are largely remaining the same for the Project (but at a larger scale); the permit was obtained in one of the highly regulated regions in the country.

For support in the State of Washington and at the larger scale of the Project manufacturing facility, Sila has been working with a local consulting firm, [redacted], to assist in the permitting process. According to their website, [redacted]

3. Any of the offeror's existing written environmental policies, procedures, or plans currently in place and considered essential to the conduct of the offeror's commercial business operation.

Sila currently maintains the necessary environmental policies, procedures, and plans to protect its employees, environment, and community. Specific programs include a hazardous materials and

waste program; air permit compliance program (permitted through BAAQMD); stormwater and wastewater programs (permitted through EBMUD) with all recent regulatory inspections identifying no violations or citations. Sila also enforces a Process Hazard Analysis program in which all new processes or process changes are evaluated to ensure that any potential environmental risks/permit excursions are identified and safeguards are put in place to reduce the likelihood of such an event. A Management of Change (MOC) process is in place for manufacturing tools in which any change is reviewed by the Environmental Health and Safety (EHS) group to ensure no impact to the environment or existing permits. All manufacturing engineers and technicians are trained in the MOC process. Finally, an Environmental Stewardship program assesses options to substitute or eliminate the use of hazardous chemicals in our operations, which in turn reduces the generation of hazardous waste and air emissions.

Quality Jobs & Community Benefits Plan: Sila - Equity Plan

Sila Nanotechnologies (Sila) is pleased to submit the following Quality Jobs and Community Benefits Plan (Equity Plan), as outlined in Funding Opportunity Announcement Number DE-FOA-0002678. As a diverse and inclusive company, providing over 300 well-paying jobs in the San Francisco Bay Area, Sila is dedicated to creating quality job growth while advancing environmental and energy justice and diversity, equity, and inclusion.

Sila's teams are solving the world's toughest energy challenges. Realizing Sila's vision for a sustainable energy future requires us to unlock our collective potential. To achieve this, Sila is creating a diverse, equitable, and inclusive workplace culture where all our employees — who we call Silazens — feel safe, trusted, and valued.

The Moses Lake Auto-Scale Silicon Anode Plant Project (the Project) supports Sila's vision to create a sustainable energy future through its Equity Plan. The Equity Plan commits Sila to the corporate culture, employee support systems, and relationships needed to underpin the Project's goals, and therefore Sila's, success.

As the lead applicant for this proposal, Sila will leverage its Equity Plan throughout the proposed Project. The Equity Plan demonstrates Sila's dedication to equity and outlines its approach to the proposed Project and how it will apply specifically to (1) Community Engagement; (2) Quality Jobs; (3) Diversity, Equity, Inclusion, and Accessibility; and (4) the White House Justice40 Initiative. The final section details Sila's Equity Plan SMART Goals for each budget period.

1. Community Engagement: Sila and the Moses Lake Community

This Project demonstrates Sila's dedication to building strong relationships with and investing in the growth and development of the Moses Lake and Grant County communities. This section summarizes our current status and plans to engage with these communities and their representative groups. Sila will create a Community Advisory Board that will include key stakeholders to provide Sila with insights into community priorities, relationships, and guidance on how to fulfill the needs of Grant County's citizens. The community engagement plan is summarized in **Figure EQP-1**.

	Local Educational Institutions	Community Organisations	Under-represented Partners	Local Businesses	Local & State Government	Local & State Associations	Trade Unions
Example groups:	[redacted]						
Sila engagement:	Fund personnel and equipment for courses Invest in schools of employees' families	Partner to understand local issues & target Sila investments to community needs	Attract and support talent, including those displaced fr. fossil fuel industry Provide access to high-quality jobs	Form direct connections to build positive working relationships At least one farmer & local resident to join Sila's community board	Communicate to ensure all regulatory requirements are met Collaborate on gov't initiatives (e.g. clean energy transition)	Become an active member to lead local economic development	Use Union Labor wherever possible

Figure EQP-1: Sila's Moses Lake Community Engagement Plan

1.1 Local Educational Institutions

Sila is forming partnerships with [redacted] (see attached letters of support). These partnerships will include Sila's funding support for coursework development aimed at preparing local talent for skilled labor openings in Moses Lake. Sila also plans to work with [redacted] to prepare local students for careers in material science and leadership. For example, Sila will invest in personnel and equipment to advance programs like [redacted] degrees in Chemistry and Mechatronics and in personnel and programming for its B.A. in Applied Management.

Over the coming years, Sila will provide support to other local schools, including the full pipeline of primary and secondary schools, community colleges, and technical colleges. For example, Sila will work with [redacted] (see attached letter of support) to invest directly in the schools of Sila's employees' families. [redacted] has a platform that makes it easy for anyone to help a teacher in need, with the goal of moving the US closer to a nation where students in every community have the tools and experiences they need for a great education. The [redacted] online platform enables teachers to easily request what they need in their classrooms. Sila plans to provide each employee with gift cards to use on the [redacted] platform to fund local teachers' requests. Over time this will create incentives for more teachers to request funding via the platform and increase Sila's direct investment in local schools.

1.2 Community Organizations, Local Residents, and Businesses

Sila has engaged with local stakeholders through the Moses Lake Economic Development group. Examples of local entities include the [redacted] Partnering with these groups helps ensure that Sila understands local issues and is prepared to meet the community's needs.

To support the development of local, diverse talent, Sila is establishing relationships with the [redacted] among other organizations.

Sila is also reaching out and forming connections with neighboring Moses Lake businesses. These include [redacted] Sila's facility also borders local farming families. By including at least one of these on our Community Advisory Board, Sila will form and maintain positive relationships with residents and farmers.

1.3 Local and State Government

Sila will continue to work closely with the county and state governments to ensure it meets all regulatory requirements and that it supports community leaders. Sila leadership has met with the Washington state governor and is well aligned with the state's energy and environment key initiative of speeding the transition to a clean energy economy. Sila has also met with the local mayor and city manager to address Sila's role in addressing local needs.

1.4 Local and State Associations

By working with state and local associations to improve its knowledge and understanding of the area, Sila will be able to identify and partner with other local business leaders. For example, Sila is a member of the Association of Washington Businesses (AWB) and sits on multiple policy committee teams. AWB is the largest Washington state business association with over 7,000 members representing 700,000 employees.

Sila has engaged and continues to work with the [redacted] has helped Sila connect with many of the community leaders and education centers listed in the Equity Plan. Sila shares a common vision to support economic development and grow the local community to help support future job growth.

Sila will also join the [redacted]

1.5 Union Engagement

Sila has a demonstrated history of using union labor for contract work. Sila has contracted union labor to build facilities in Alameda, CA. For the Project, Sila is also negotiating with several contractors who work with union labor, including [redacted] These contractors would be subcontracted through Sila's relationship with the general contractor [redacted], which has included a letter of support for this application. While the final decision has not been made on this contract, [redacted] is one of the leading contenders. Regardless of whether the final general contractor is [redacted] or a different company, Sila anticipates engaging with unions to use union labor where possible on the Project.

1.6 Continuity of Community Engagement

Sila's commitment to community engagement, outlined above, has already begun. Sila will continue its efforts before, during, and after the Project is complete. Sila's vision for diversity, justice, and inclusiveness are fully aligned with the Project's requirements. A project such as this one — which supports local economic and educational development in underserved communities — furthers Sila's corporate goals.

Sila will invest in this community by identifying local needs and gaining social buy-in through a [redacted] or other means. This includes educational advancement of the local workforce and sustainable community development by bringing jobs and outside investment to this community. Small business owners, landowners, schools, and local citizens will all benefit because the quality jobs, outside community support, and educational support will develop, attract, and retain qualified personnel in this locale.

Sila will mitigate Project risks by meeting the specific needs of this community through continuous stakeholder engagement and adherence to the principles of the Equity Plan. Thus, any lack of social buy-in, objections, and risk of "failure" will be mitigated through the continual and substantial stakeholder engagement and community benefits brought by the Project.

2. Quality Jobs And Skilled Workforce

Sila's has a track record of successfully attracting, hiring, developing, and retaining a skilled workforce. Sila's strategy to accomplish this in Moses Lake has five components, also summarized in **Figure EQP-3**:

1. Meaningful community engagement, as set forth above, including skill training through local educational partnerships to reduce the risk of unemployment.
2. Job creation in Moses Lake and Grant County
3. At or above market compensation to reduce the risk of underemployment and to attract and retain a skilled workforce, including the application of a transparent and consistent process to reduce disparities across race and gender lines.
4. Training programs to develop a local workforce and to help employees transition to Sila from previous careers in fossil-fuel-related industries.
5. A safe workplace with a sustained positive impact on the environment and local community through a work culture built on a foundation of front-line collaboration, learning, and improvement.

2.1 Job Creation

Sila expects between 80 and 250 high-quality jobs to be created by the Project that will provide opportunities for growth of the Moses Lake/Grant County skilled workforce. The expected job areas include manufacturing, engineering, maintenance, supply chain, quality, warehouse operations, IT, and environmental, health, and safety (EH&S). Sila estimates that this will include up to 145 entry-level jobs in manufacturing technicians, maintenance technicians, EH&S technicians, information technology, and warehouse operations.

2.2 Competitive and Equitable Compensation

Compensation is a fundamental component of the contract between an employee and employer. Sila's compensation philosophy has three key objectives:

- Attract and retain employees ("Silazens") who are high performing, mission driven, team oriented, and motivated by growth and an impactful career at Sila.
- Practice clear and consistent processes with checks and balances to assure internal and external fairness through good judgment and market competitiveness.
- Support Sila's business competitiveness, strategic development, and financial strength.

To attract, retain, and value talent, Sila links our cash compensation to the market with rigorous benchmarking. Sila's equity compensation (stock options) is above market and [redacted]

Sila's compensation process has checks and balances to help assure equitable outcomes across race and gender. For example, Sila holds facilitated calibration sessions where managers discuss biases and how to address them. Sila also reviews performance-ranking statistics by race and gender categories and creates feedback loops to address any systematic discrepancies. Sila provides all employees with their position in the salary band so that there is transparency in the reasoning behind their compensation.

Sila's total rewards package also includes [redacted] and other standard offerings. [redacted]

[redacted]

[redacted]

2.3 Training Programs

Sila will leverage its experience in recruiting and training manufacturing employees at its Alameda facility to create high-quality jobs and a skilled workforce in Moses Lake. Sila has built substantial administrative and technical training programs to efficiently and successfully onboard new employees. Sila has internship and apprenticeship programs that provide skills attainment for technical positions. Sila partners with local community colleges and trade organizations in Alameda, and it is kicking off partnerships with [redacted] to build similar programs in Moses Lake.

Both Sila's growth and mission enable it to hire workers who have lost or anticipate losing jobs due to the displacement of fossil energy. At Sila's Alameda facility, over 13% of the current workforce (over 40 people) come from oil and gas, chemical, internal combustion engine, and other fossil-fuel-related industries. For example, Sila hired ex-Marathon employees when the company idled its Martinez Refinery. Employees from the fossil fuel industries have skills that are highly applicable to Sila's manufacturing processes. Equipment maintenance, process engineering, procurement, safety technicians, safety engineers, and quality technicians

are just a subset of the skills that people trained in fossil-fuel industries can — and do — apply at Sila.

Sila provides development opportunities for all employees. This includes formal training for technical skills as well as for general skills such as giving and receiving feedback and inclusive hiring. Sila uses career pathways to provide a roadmap for growth for all employees (exempt and non-exempt). Sila plans to continue with and tailor these offerings for its Moses Lake workforce. Sila also subsidizes continuing education for employees. Sila's Justice40 Initiative Plan, found below in **Section 4**, describes Sila's educational assistance program and its benefits in detail.

2.4 Safe and Environmentally-Focused Workplace

Sila is committed to establishing and maintaining a safe workplace for all employees. Sila's goal is to ensure that all employees go home to their families healthy, that its operations do not negatively impact the environment, and that its presence has an overall positive impact on the local community.

Starting with a strong commitment from top management, Sila has created a culture where its employees are passionate about safety — staying ever vigilant and proactively addressing risks. Being a Silazen means that you are part of a team that works together to address workplace safety, health, and environmental challenges in a collaborative manner. Sila recognizes that those closest to the work have the most knowledge about the challenges of getting work done safely. To that end, Sila works hard to create a culture where it is safe, and even expected, for Silazens to highlight concerns and then work collaboratively to improve processes in a way that is safe, simple, effective, and sustainable.

2.5 Summary

Figure EQP-3 below summarizes Sila's plan to create quality jobs and train a skilled workforce. Sila has always been and will continue to be committed to providing quality jobs, and Sila partners with employees to define and deliver the aspects of employment, such as those discussed above and others, that are needed to assure this. Sila is open to negotiating Project Labor Agreements to the extent those are relevant. Providing Silazens with a safe, healthy, and enjoyable workplace experience matters. Sila is excited to scale its positive impacts at Moses Lake.

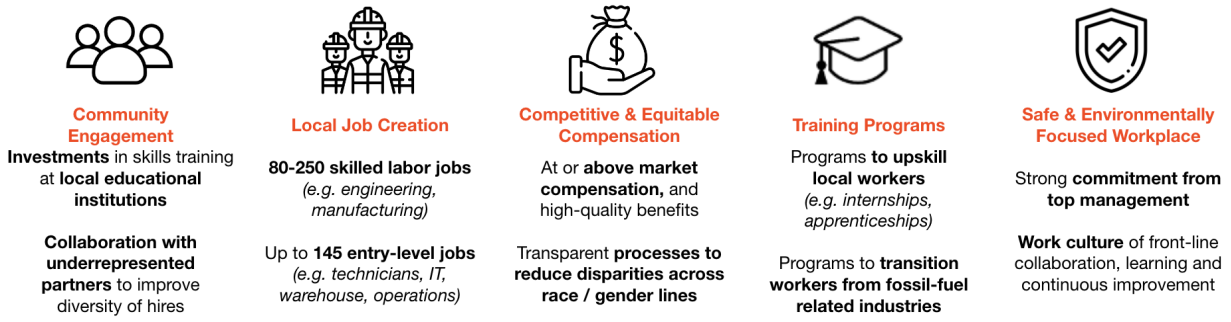

Figure EQP-3: Sila is Committed to Creating Quality Jobs and Training a Skilled Workforce

3. Diversity, Equity, Inclusion, and Accessibility.

Sila's commitment to DEIA is a core element of its Equity Plan. This section discusses Sila's general DEIA vision and approach that is common to all its operations, including the proposed Project in Moses Lake. The final section of this plan, DEIA and Justice 40 Project Goals, defines specific DEIA SMART goals and metrics for the Project for each budget period.

Sila's DEIA vision and commitments apply to all its operations. Sila believes that it is well-equipped to tackle the hardest challenges when it amplifies the strengths of its individual team members. As Sila builds the best teams, diversity and inclusion are imperative, not optional. The diversity of Sila's teams catalyzes innovation. An inclusive workplace brings together unique identities, experiences, and backgrounds to bear on its work. Fairness, consistency, and transparency are foundational to excellence in processes, systems, and leadership. Sila aims to meet a high bar both because it is the right thing to do, and because it will help Silazens thrive.

In pursuit of its DEIA vision and commitments, Sila has three strategic priorities, displayed below in **Figure EQP-4**:

1. Build and support a diverse workforce
2. Develop equitable and inclusive business systems and leaders
3. Align with strategic partners

Figure EQP-4: Sila's Three-Fold Strategy to Accomplish its DEIA Vision

3.1 Build and Support a Diverse Workforce

To build a diverse workforce, Sila is focused on attracting diverse talent and creating internal programs to support underrepresented groups.

Sila's recruiting team targets a wide selection of industries and universities, and actively sources for underrepresented talent. For example, Sila has formed a partnership with [redacted] who is included as a sub-recipient (Note: due to short timeline on application, [redacted] documentation will be provided during diligence phase). Sila also employs tools like Textio to refine its job postings to appeal to a wide variety of candidates and post them strategically on job boards to garner wide viewing. Further, Sila maintains a robust advertising strategy aimed at recruiting a diverse pool of applicants. The

strategy, comprising social media, print media, and online platforms, connects personal stories to Sila advertising and highlights institutional diversity.

[redacted]

Figure EQP-5: Sila's Current Demographics (Q1 2022)

To support a diverse workforce, Sila offers training and development opportunities, including internal transfers to new roles, and supports Employee Resource Groups (ERGs). ERGs are key to fostering inclusion and belonging at Sila. Current groups include The Network of Black Silazens, SiLatines, Spectrum to support LGBTQ+ Silazens, Sila Women and Gender Non-confirming, and Sila Asian and Pacific Islander. All of Sila's ERGs provide networking opportunities, support, education, and professional growth opportunities for underrepresented groups in science and engineering at Sila. Sila's ERGs engage with the local community to support underrepresented groups outside of Sila, including partnering with the Oakland Unified School district to engage and mentor students in STEM and participating in educational conferences for girls and gender non-conforming youth.

Sila's current demographics, shown in **Figure EQP-5**, are similar to those at other Bay Area technology companies, and Sila strives to continuously improve. Sila aims to match the demographics of science and engineering graduates from US universities for its engineering population. For the Project, Sila will aim for the demographics of its operational employee population to match the demographics of Moses Lake and the surrounding areas. Washington State has excellent universities, colleges, community colleges, and trade schools. Sila will fully extend its reach into these communities.

3.2 Develop Equitable and Inclusive Business Systems and Leaders

To make continual progress in developing equitable and inclusive business systems and leaders, Sila leverages transparency in hiring, advancement, compensation, and training. Sila intends to extend these practices to all its operations, including the Project.

Sila's compensation approach provides a key example of its transparency. Sila communicates to every employee their position in their relevant compensation range (for

example, whether they are at 90% or 105% of the midpoint of the market-derived compensation band for their level and role). Transparency is possible because Sila applies a fair and consistent compensation process across all employees and because Sila offers training to help employees understand the system and how it links to their performance. Sila invites honest conversations about the outcomes of this system and how to improve it.

Sila also tracks its hiring pipeline statistics to understand if its interview process is inclusive and equitable so it can move toward its diversity goals. For example, in 2021 Sila's conversion rates of Black, Latine, Asian, and White candidates to the final phase of its interview process were [redacted] respectively. Sila's conversion rate to the final interview phase for women was [redacted] compared to [redacted] for men. We provide Inclusive Hiring Training for hiring managers and interviewers and a deeper level of training and coaching for Sila's recruiters.

3.3 Align with Strategic Partners

Sila is committed to collaborating with community partners, vendors, and suppliers to support its DEIA strategic priorities. Sila will expand its partnerships with organizations that will support Sila's DEIA efforts and the development of its employees. For example, Sila currently partners with Mind the Gender Gap on its DEIA strategy, theory of change, and roadmap. Sila partners with Valence for developing its Black leaders and sourcing Black candidates. As noted above, Sila has built a partnership with [redacted] and looks to continue working with other HBCUs.

In addition, Sila is in contact with other local organizations in Moses Lake, WA and nationally, with whom we are exploring opportunities to partner to expand STEM education. For example, Sila plans to sponsor apprentice programs, scholarships, and internships in Moses Lake, working with some or all of these potential partners: [redacted] Hispanic students make up more than 80% of the student population at Royal High School, and more than half of the students are considered economically disadvantaged or homeless.

3.4 Accessibility

In order to make sure that those with disabilities have access to jobs and the benefits of the Project, Sila is open to many creative types of accommodation. This could range from more traditional approaches and requirements, such as ramps, to audible and visible alarm systems, adjustable tables and sit/stand desks, and special lighting, or to simply having policies and procedures in place for addressing accommodation needs for people with disabilities.

Sila is also committed to developing its content to be more inclusive for diverse audiences, including its employees who may communicate in a non-native language, have visual impairments, or have learning differences. Sila leverages technology to create more accessible content for all employees, such as recording large company meetings and enabling the use of closed captioning, including in multiple languages.

Sila's job descriptions provide an example of how Sila strives to reach a diverse audience. Sila uses Textio, an augmented writing software, to write more inclusive job descriptions. Textio helps Sila review its job descriptions for biased language, identify and make reasonable adjustments, and reduce ability bias interpretation.

4. Justice40 Initiative

Sila's core mission is to make the highest performing battery materials that will support the world's transition away from fossil fuel consumption. Leveraging Sila's Moses Lake project to contribute to the Justice40 initiative's goal of leveraging investments in clean energy to counter historical environmental injustice, including the disproportionate, disparate, and cumulative impacts that pollution and climate change have on low-income communities and communities of color, is aligned with our mission.

This section outlines why Sila believes that at least 40 percent of the overall benefits of the BIL grant and of Sila's Moses Lake project will flow to disadvantaged communities. Sila provides an overview of benefits to disadvantaged communities in Moses Lake and Grant County that can be supported by measurable metrics. Should Sila be selected for the grant, Sila is fully supportive of this section of its plan being incorporated into the award and included in a [redacted] If Sila is selected for the grant, it will include appropriate milestones for benefits delivery in the Agreement.

The Moses Lake/Grant County area has disadvantaged communities in the following areas, as defined by the White House Council on Environmental Quality's Climate and Economic Justice Screening Tool:

- **Workforce development:** A disadvantaged community is defined by linguistic isolation, low median income, unemployment, and percent of a census tract's population where the household income is at or below 100% of the Federal poverty level combined with high school degree non-attainment and higher education non-enrollment.
- **Health burdens:** A disadvantaged community is defined by the prevalence of key health indicators (asthma, heart disease, diabetes, and life expectancy) combined with low income and low higher education non-enrollment.
- **Clean Energy and Energy Efficiency**: A disadvantaged community is defined as high pollution (specifically PM2.5 in the air) combined with low income and higher education non-enrollment. In some areas, a high energy burden is also relevant, but in Grant County, the energy burden is very low (44th percentile).

The variables of low income and higher education non-enrollment are common among these disadvantaged communities. Providing quality jobs and pathways to higher education are two of the core benefits the Project will bring to the Moses Lake and Grant County area. Along with these core benefits, the plan outlined below and Sila's pledge to invest [redacted] in local disadvantaged communities in partnership with local and national non-profit organizations gives Sila confidence that at least 40% of the benefits of the Project will flow to these disadvantaged communities.

4.1 Workforce Development

Sila will create quality job opportunities for the local workforce that increase income, skill development, higher education enrollment, high school degree attainment, clean energy and climate-smart job training, and subsequent good job placement/hiring.

- The jobs created by the Project will be eligible for on-the-job training. For relevant roles, this will include climate-smart training in areas such as how to identify and manage waste streams, identify energy efficiency opportunities, and track and manage GHG emissions and other environmental inventories.
- All Sila employees, including those in Moses Lake, are and will continue to be eligible for promotion and internal job transfers as a result of new skills acquired on the job and sustained performance.
- By the end of 2026, at least [redacted] of candidates for Sila's Moses Lake jobs will be sourced through partnerships with local trade organizations and schools, including [redacted], creating an incentive and a path for higher-education attainment.
- Sila will support high school degree attainment by partnering with [redacted] No later than 2024 and annually thereafter, Sila will:
    - Enhance STEM education by offering at least two days per year onsite at Sila for hands-on learning about batteries, clean tech, and Sila's manufacturing process.
    - Support at least three students' projects each year by providing mentors.
    - Provide at least three paid high-school student internship opportunities each year
- At least [redacted] of the full-time jobs directly created by the Project will pay above the average annual wage in Grant County. At the time of this writing, Sila's lowest-paying jobs start at [redacted] which is higher than the Grant County average.
- Sila plans to maintain our educational assistance program that subsidizes the cost of education for employees who work while obtaining certifications and higher degrees.

As noted above, variables of low income and higher education non-enrollment are key factors that underpin why communities in the Grant County area are disadvantaged. Funding our educational assistance program will be a key component of how the benefits of this Project flow to disadvantaged communities. Our program allows employees to pursue both higher education and, therefore, higher income while working. The program covers up to [redacted] per year in educational costs up to a cap of [redacted] for course work and up to [redacted] per year in education costs up to a cap of [redacted] for degree and certification programs.

The program outlines key components that make this benefit equitable. Our documentation specifically states that the program is intended to benefit the company's eligible employees in general, and it shall not discriminate in favor of officers or highly compensated employees of the company. It outlines how an employee and their supervisor can work together to create a flexible plan for coursework to be completed while the employee continues to work. It also discusses Sila's commitment to help employees identify roles that utilize, and therefore compensate them for, their newly acquired skills.

4.2 Health Burdens

Sila will help reduce Grant County's health burdens by providing high-quality, affordable health insurance to all employees and by partnering with local health care organizations to emphasize and provide preventative care. Sila will:

- [redacted]

4.3 Clean Energy and Energy Efficiency

Sila's product enables the clean energy transition. It is Sila's mission to produce a product that will reduce greenhouse gasses (GHG), particulate matter, and other pollutants through its adoption in the transportation industry. In order to minimize the environmental footprint of its operations, Sila will:

- Follow all environmental laws and permitting requirements.
- Commit to conducting a Life Cycle Analysis (LCA) of its Moses Lake facility within [redacted] of start of production (projected for 2025).[redacted]
- Incorporate an environmental footprint analysis into the LCA of its product.
- Present the findings of its environmental footprint and LCA at local schools to contribute to climate-smart training and STEM education.
- Use Best Available Control Technology for all [redacted]
- Incorporate clean and efficient energy technologies wherever practical, including utilizing electric plant machinery and warehouses.

Sila's Justice40 Initiative plan is summarized below in **Figure EQP-6.**

	Workforce Development	Health Burdens	Clean Energy & Energy Efficiency
Relevant Justic40 area:			
Disadvantage description:	Low education enrollment, low income, high unemployment, linguistic isolation	Prevalence of key health indicators; low income & higher education enrollment	High pollution (specifically PM2.5); low income & higher education enrollment
Sila project benefits:	**High-quality job opportunities** that increase income, skill development, and subsequent job placement / hiring **Partnerships with local institutions** to increase high-school graduation rate & higher-education enrollments	Provide high-quality, affordable **health insurance** to all employees Partner with local health care organizations to emphasize and provide **preventative care**	Produce a **product that reduces pollution** through its adoption in the transportation industry Minimize the **environmental footprint of Sila operations**
Example targets:	**From launch:** [redacted] of jobs pay above average Grant County wage *(currently tracking at* [redacted] **From '24:** Local high schools provided with mentors, internships and site visits **By end '26:** [redacted] of candidates for Moses Lake jobs sourced from local trade orgs / schools	**From launch:** Offer at least one medical insurance plan for employees [redacted] **From '24:** Partner with healthcare providers to provide incentives for use of preventative care **Aspirational:** Partner with local healthcare provider to provide mobile preventative-care clinic on-site	**From launch:** Incorporate clean & efficient energy technologies wherever practical **By end '25:** conduct a life-cycle analysis of the Moses Lake facility and present to local schools **Aspirational:** All operations to have net neutral environmental footprint

Figure EQP-6: Sila's Justice40 Initiative Plan

5. DEIA and Justice40 Project Goals

The following SMART goals and metrics for each budget period between 2023 and 2026 solidify Sila's commitment to DEIA and the Justice40 Initiative for Sila's Moses Lake Project. Should Sila be selected for the grant, it is fully supportive of this section of its Equity Plan being incorporated into the award and included in a [redacted]

Budget Period	SMART Goal	Metric
2023	At least two partnerships (local or national) are actively helping Sila source talent for the Project by the end of 2023.	Number of partnerships resulting in at least one underrepresented candidate who progresses to the 2nd interview stage for a Moses Lake role.
2023 and annually	Complete first round of inclusive hiring training for at least 75% of Moses Lake hiring managers who have been with Sila for at least six months by the end of 2023.	Number of Moses Lake managers who have completed training within six months of hire date.
2023	Finalize charter, including purpose, parameters, and membership, of Sila's Moses Lake Community Advisory Board (CAB) by the end of 2023.	Completion of charter and initial membership of CAB.

2023	Complete plan and finalize local and national partnerships to invest [redacted] in local disadvantaged communities through the end of the Project (in 2026); fFor example, investing money in schools in disadvantaged communities, such as [redacted] (see signed letter of support from [redacted].	Plan that includes timing, scope, and identification of benefits to relevant disadvantaged communities in and around Moses Lake.
2024	Sila's Employee Resource Groups are formed in and/or extended to Moses Lake by the end of 2024.	All Sila ERGs have engaged the ML workforce in at least one event/activity.
2024	At least [redacted] pledged is invested in disadvantaged communities in and around Moses Lake by the end of 2024.	Amount of money invested in local disadvantaged communities.
2025	At least three interns from [redacted] have completed internships by the end of 2025.	Number of students from [redacted] who have completed internships.
2026	By the end of 2026, Sila has invested at least $500,000 in local disadvantaged communities in and around Moses Lake in partnership with local and national organizations.	Amount of money invested in local disadvantaged communities.
2026	By the end of 2026, at least [redacted] of candidates for Moses Lake roles will be sourced through local partnerships like those with trade organizations and schools, including [redacted], creating a local incentive and a path for higher-education attainment.	Percent of candidates for Moses Lake roles sourced through local partnerships.

Conclusion

This Equity Plan reflects Sila's commitment to meeting the objectives of the Project. As the Project moves forward, the team will meet and seek to surpass the Project's goals by identifying additional measures that would meaningfully contribute to the Project's community benefit, including providing quality jobs, skilled workforce training, DEIA, and implementing the objectives of the Shite House's Justice40 Initiative Plan. Thank you for your consideration.

Foreign Entity Participation Waiver Request - [redacted]

[redacted] requests a waiver to the requirement that all prime recipients and subrecipients receiving funding under this FOA be incorporated (or otherwise formed) under the laws of a state or territory of the United States with majority domestic ownership or control and have a physical place of business in the United States.

[redacted] would respectfully show the following:

Entity Name	Point of Contact	Proposed Involvement with the Applicant	DUNS Number of Proposed Foreign Participant	DUNS Number of Foreign Parent Organization (if applicable)
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Country of Incorporation	Extent of the Ownership/Level of Control by Foreign Entities	Entity State Owned?
[redacted]	[redacted]	[redacted]

Summary of Ownership

[redacted]

Rationale for Foreign Entity Participation

Anticipated Contributions to the U.S. Economy

[redacted]

[redacted]

[redacted] **Participation is Essential to Project**

[redacted]

Intellectual Property

[redacted] ill be required to grant all data and rights necessary for the parties to fulfill their obligations to the Government. The intellectual property management plan will include any flow-down clauses required under the award.

[redacted]

Countries of Work Performance

[redacted]

Note: Subject to final review and approval from subrecipient counsel

Performance of Work in the United States/Foreign Work Waiver Request - [redacted]

Sila Nanotechnologies, Inc. ("Sila") requests a waiver to the Performance of Work in the United States requirement for its Auto-Scale Silicon Anode Plant Project (the Project) in conjunction with DE-FOA-0002678. Sila believes that the work described herein would further the purposes of this FOA and is otherwise in the economic interests of the United States if it were to be performed outside of the United States.

Specifically, Sila would show the following:

[redacted]

[redacted]

[redacted]

[redacted] will be required to grant all data and rights necessary for the parties to fulfill their obligations to the Government. The intellectual property management plan will include any flow-down clauses required under the award.

[redacted]

Note: Subject to final review and approval from subrecipient counsel

Foreign Entity Participation Waiver Request - [redacted]

[redacted] requests a waiver to the requirement that all prime recipients and subrecipients receiving funding under this FOA be incorporated (or otherwise formed) under the laws of a state or territory of the United States with majority domestic ownership or control and have a physical place of business in the United States.

[redacted] would respectfully show the following:

Entity Name	Point of Contact	Proposed Involvement with the Applicant	DUNS Number of Proposed Foreign Participant	DUNS Number of Foreign Parent Organization (if applicable)
[redacted]	[redacted]		[redacted]	[redacted]

Country of Incorporation	Extent of the Ownership/Level of Control by Foreign Entities	Entity State Owned?
[redacted]	[redacted]	[redacted]

Summary of Ownership

[redacted]

Ownership Summary

TYPE	COMMON STOCK EQUIVALENT HELD	PERCENT OF COMMON SHARES OUTSTANDING (%)	MARKET VALUE ($M)
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

A more detailed ownership structure can be provided upon request in due diligence.

Rationale for Foreign Entity Participation

Anticipated Contributions to the U.S. Economy

[redacted]

[redacted] **Participation is Essential to Project**

[redacted]

Intellectual Property

[redacted]

Countries of Work Performance

[redacted]

Note: Subject to final review and approval from subrecipient counsel

<u>Performance of Work in the United States/Foreign Work Waiver Request -</u> [redacted]

Sila Nanotechnologies, Inc. ("Sila") requests a waiver to the Performance of Work in the United States requirement for its Auto-Scale Silicon Anode Plant Project (the Project) in conjunction with DE-FOA-0002678. Sila believes that the work described herein would further the purposes of this FOA and is otherwise in the economic interests of the United States if it were to be performed outside of the United States.

Specifically, Sila would show the following:

[redacted]

[redacted]

[redacted]

[redacted]

Note: Subject to final review and approval from subrecipient counsel

Letters of Commitment

Table of Contents

1. [redacted]
2. [redacted]
3. [redacted]
4. [redacted]
5. [redacted]
6. [redacted]
7. [redacted]
8. [redacted]
9. [redacted]
10. *Pacific Northwest National Laboratory
11. *Argonne National Laboratory
12. [redacted]
13. [redacted]
14. [redacted]
15. [redacted]
16. [redacted]
17. [redacted]
18. [redacted]
19. [redacted]

*Denotes an application sub-recipient

[redacted] June 23, 2022

U.S. Department of Energy , Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologrtomoies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This Letter of Commitment confirms the support and involvement of [redacted] in the development of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing ~$400M in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

[redacted] is pleased to support Sila in its application under DOE's BIL Battery Materials Processing and Battery Manufacturing FOA. We understand that DOE seeks commercial facility projects that will create a domestic supply chain for next generation battery materials. Further, the Project ideally aligns with creating silicon-based powder for use in batteries for electric vehicles. Sila is well-positioned and its Project is uniquely suited for the team that has been created.

[redacted]

[redacted]

Please contact me if you have any questions on the contents of this letter or with respect to [redacted] continuing support of the Project.

Sincerely,

[redacted]

June 23, 2022

U.S. Department of Energy
Offices of Manufacturing and Energy Supply Chains, and
Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This non-binding letter of intent outlines the proposed involvement of n the development of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project").

is pleased to support Sila in its application under DOE's BIL Battery Materials Processing and Battery Manufacturing FOA. We understand that DOE seeks commercial facility projects that will create a North American supply chain for next generation battery materials. Further, the Project aligns with creating silicon-based powder for use in batteries for electric vehicles. ila is well-positioned to take advantage of this emerging market.

Please contact me if you have any questions on the contents of this letter or with respect to [redacted] continuing support of the Project.

Sincerely,

[redacted]

[redacted]

[redacted]

U.S. Department of Energy, Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This Letter of Commitment confirms the support and involvement of [redacted], in the development of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing ~$400M in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

[redacted] is pleased to support Sila in its application under DOE's BIL Battery Materials Processing and Battery Manufacturing FOA. We understand that DOE seeks commercial facility projects that will create a domestic supply chain for next generation battery materials. Further, the Project ideally aligns with creating silicon-based powder for use in battery cells for electric vehicles. Sila is well-positioned, and its Project is uniquely suited for the team that has been created.

[redacted]

Please contact me if you have any questions on the contents of this letter or with respect to [redacted] continuing support of the Project.

Sincerely,

[redacted]

U.S. Department of Energy , Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This Letter of Commitment confirms the support and involvement of [redacted] in the development of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing ~$400M in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

[redacted] is pleased to support Sila in its application under DOE's BIL Battery Materials Processing and Battery Manufacturing FOA. We understand that DOE seeks commercial facility projects that will create a domestic supply chain for next generation battery materials. Further, the Project ideally aligns with creating silicon-based powder for use in batteries for electric vehicles. Sila is well-positioned and its Project is uniquely suited for the team that has been created.

[redacted]

Please contact me if you have any questions on the contents of this letter or with respect to [redacted] continuing support of the Project.

Sincerely,

[redacted]

[redacted]

[redacted]

U.S. Department of Energy, Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy

1000 Independence Ave SW

Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678 Letter of Commitment, Sila Nanotechnologies Full Application Control Number: 2678-1600

To Whom It May Concern,

This Letter of Commitment confirms the support and involvement of [redacted] in the development of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing ~$400M in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

[redacted] is pleased to support Sila in its application under DOE's BIL Battery Materials Processing and Battery Manufacturing FOA. We understand that the DOE seeks commercial facility projects that will create a domestic supply chain for next generation battery materials. Further, the Project ideally aligns with creating silicon-based powder for use in batteries for electric vehicles. Sila is well-positioned and its Project is uniquely suited for the team that has been created.

[redacted]

Please contact me if you have any questions on the contents of this letter or with respect to [redacted] continuing support of the Project.

Sincerely,

[redacted]

[redacted]

U.S. Department of Energy , Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This Letter of Commitment confirms the support and involvement of [redacted] in the development of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing ~$400M in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

[redacted] is pleased to support Sila in its application under DOE's BIL Battery Materials Processing and Battery Manufacturing FOA. We understand that DOE seeks commercial facility projects that will create a domestic supply chain for next generation battery materials. Further, the Project ideally aligns with creating silicon-based powder for use in batteries for electric vehicles. Sila is well-positioned and its Project is uniquely suited for the team that has been created.

[redacted]

Please contact me if you have any questions on the contents of this letter or with respect to [redacted] continuing support of the Project.

Sincerely,

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

15th June 2022

[redacted]

U.S. Department of Energy , Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This Letter of Commitment confirms the support and involvement of , in the development of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing ~$400M in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

is pleased to support Sila in its application under DOE's BIL Battery Materials Processing and Battery Manufacturing FOA. We understand that DOE seeks commercial facility projects that will create a North American supply chain for next generation battery materials. Further, the Project ideally aligns with creating silicon-based powder for use in batteries for electric vehicles. Sila is well-positioned and its Project is uniquely suited for the team that has been created.

Please contact me if you have any questions on the contents of this letter or with respect to continuing support of the Project.

Sincerely,

U.S. Department of Energy , Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

[redacted]

[redacted]

[redacted]

15 June 2022

US Department of Energy
Offices of Manufacturing and Energy Supply Chains
and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington DC 20585
USA

Re: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing
DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

Dear Secretary Granholm

This Letter of Commiment confirms the support of [redacted] in the development of Sila Nanotechnologies ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing ~$400M in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

[redacted] is pleased to support Sila in its application under DOE's BIL Battery Material Processing and Battery Manufacturing FOA. We understand that DOE seeks commercial facility projects that will create a domestic supply chain for next generation battery materials. Further, the Project ideally aligns with creating silicon-based powder for use in batteries for electric vehicles. Sila is well-positioned, and its Project is uniquely suited for the team that has been created.

[redacted]

Please contact me if you have any questions on the contents of this letter or with respect to [redacted] continuing support of the Project.

Yours sincerely

[redacted]

902 Battelle Boulevard
P.O. Box 999, MSIN K9-15
Richland, WA 99352
509-375-3652
Mary.foraker@pnnl.gov
www.pnnl.gov

June 16, 2022

Sila Nanotechnologies
Attn: Ian McColl
2470 Mariner Square Loop
Alameda, CA 94501

Dear Mr. McColl:

SUBJECT: PNNL PROPOSAL 80536 – Development of Novel Electrolyte to Extend Cycle Life and Calendar Life of Si Based Li Ion Batteries – DE-FOA-0002678-1600 - Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing

The Pacific Northwest National Laboratory (PNNL) operated by Battelle for the U.S. Department of Energy (DOE) is pleased to submit the subject proposal which confirms PNNL's commitment to the subject project. The subject proposal outlines PNNL's support in the development of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale silicon-anode plant to supply materials for electric vehicle (EV) battery production, for which Sila has brought together an extremely well-qualified, diverse, and enthusiastic team. Over the course of their initial project, Sila will be investing ~$400M in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this initial factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

PNNL is delighted to support Sila in its application under the DOE's BIL Battery Materials Processing and Battery Manufacturing FOA. We understand that DOE seeks commercial facility projects that will create a domestic supply chain for next generation battery materials. Further, the Project aligns perfectly with creating high-performance silicon-based powder for use in batteries for EVs. This project is uniquely suited for the team that Sila has created.

PNNL and Sila have already established excellent collaboration by working together for over a year on novel electrolytes for lithium-ion batteries with Sila anode materials. As a subcontractor for this project, PNNL will be supporting Sila in gaining fundamental knowledge to further advancing applications of its outstanding silicon anode materials in EV batteries.

The cost estimate is valid through FY22. The scope of the proposed work is subject to approval by the Department of Energy, Pacific Northwest Site Office.

As a DOE Federally Funded Research and Development Center, PNNL is required to comply with DOE policy for conducting work for non-federal sponsors. Accordingly, all work will be performed on a cost reimbursement, best-efforts basis within the available time and funds under the terms and conditions of a standard Strategic Partnership Projects Agreement (attached). DOE Policy prohibits the use of DOE funds to finance a non-federal sponsor's work; therefore, an advance payment will be required.

Technical questions regarding this proposal should be referred to Jason Zhang on 509-372-6515. Contractual questions should be referred to me at the contact information above.

Sincerely,

[redacted]

Mary Foraker
Sr. Contracts Specialist

Christopher Johnson, Ph.D.
Senior Chemist & Argonne Distinguished Fellow
Chemical Sciences and Engineering Division
Argonne National Laboratory
9700 South Cass Avenue, Bldg. 200
Argonne, IL 60439
1-630-252-4787 phone
cjohnson@anl.gov

May 26, 2022

Dr. Gleb Yushin
Sila Nanotechnologies

Dear Dr. Yushin-

Subject: **Letter of Commitment – Argonne National Laboratory**
Period of Performance: 3 years
Sub-contractor Requested Budget Amount: $2.4M
Argonne Principle Investigator: Christopher Johnson

This letter is to confirm Argonne National Laboratory's participation with Sila Nanotechnologies in the DOE EERE **DE-FOA-0002678** call for proposals. The Argonne point of contact for this potential collaboration is Dr. Christopher Johnson., Argonne National Laboratory, 9700 S. Cass Ave. Argonne, IL 60439. This information is provided in accordance with applicable DOE policy regarding Argonne's participation in federal funding government announcements.

Sila Nanotechnologies has requested Argonne National Laboratories' unique capabilities be included in their response to this DOE FOA Call associated with the Bipartisan Infrastructure Law or BIL. Argonne is willing to participate in mutually agreed tasks which will be performed by our expert staff in the Electrochemical Energy Storage Theme Department at Argonne.

The battery group at ANL is widely recognized as a world leader in the development of new Li-ion battery technologies. Argonne will provide unique analytical capabilities such as the Advanced Photon Source (APS) for X-ray work and the Center for Nanoscale Materials (CNM) for microscopy and Raman studies, synthesis and battery facilities for testing which will assist in carrying out the work plan.

Argonne is a government-owned-contractor-operated facility operated by Argonne U. Chicago LLC for the U.S. Department of Energy under contract DE-AC02-06CH11357. Providing Argonne National Laboratories' services to Sila Nanotechnologies is subject to DOE review and approval in accordance with DOE policies and regulations. These services may be acquired under a bilateral contract with the Argonne, post awarding.

Sincerely,

Christopher S. Johnson, Ph.D.
Electrochemical Energy Storage Theme
Chemical Sciences and Engineering Division

U.S. Department of Energy , Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This Letter of Commitment confirms the readiness and excitement of [redacted] as part of the development of Sila Nanotechnologies' "Silicon-Anode Commercial Plant" project. We understand that Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production, and that over the course of their initial project, Sila intends to invest hundreds of millions of dollars in Moses Lake, WA.

[redacted]

Sincerely,

[redacted]

U.S. Department of Energy, Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This Letter of Commitment confirms the support and involvement of [redacted] in the development and operation of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

[redacted]

[redacted] is pleased to support Sila's operations in Moses Lake and its application under DOE's BIL Battery Materials Processing and Battery Manufacturing FOA. We understand that DOE seeks commercial facility projects that will create a domestic supply chain for next generation battery materials. With its newly purchased factory in Moses Lake, Sila is ready to fulfill this role. In turn, [redacted] is ready and ideally suited to assist Sila with [redacted]

Please contact me if you have any questions regarding the contents of this letter or with respect to [redacted] continuing support of the Project.

Sincerely,

[redacted]

[redacted]

June 24, 2022

U.S. Department of Energy, Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

[redacted]

[redacted]

June 17, 2022

U.S. Department of Energy , Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This Letter of Commitment confirms the support and involvement of [redacted] having offices at [redacted] in the development of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing hundreds of millions of dollars in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

[redacted] is pleased to support Sila in its application under DOE's BIL Battery Materials Processing and Battery Manufacturing FOA. We understand that DOE seeks commercial facility projects that will create a domestic supply chain for next generation battery materials. Further, the Project ideally aligns with creating silicon-based powder for use in batteries for electric vehicles. Sila is well-positioned and its Project is uniquely suited for the team that has been created.

Please contact me if you have any questions on the contents of this letter or with respect to [redacted] continuing support of the Project.

Sincerely,

[redacted]

[redacted]

June 22, 2022

U.S. Department of Energy
Offices of Manufacturing and Energy Supply Chains, and
Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678

Letter of Commitment, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This Letter of Commitment confirms the support and involvement of [redacted], in the development of Sila Nanotechnologies' ("Sila" or the "Applicant") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing hundreds of millions of dollars in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 EVs annually.

[redacted]

Please contact me if you have any questions on the contents of this letter or with respect to [redacted] continuing support of the Project.

Sincerely,

[redacted]

[redacted]

June 24, 2022

U.S. Department of Energy, Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Support, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It May Concern,

This letter confirms the support of [redacted] Moreover, [redacted] supports the proposed project of Sila Nanotechnologies' ("Sila" or the "Applicant").

[redacted]

[redacted] understands that DOE seeks commercial facility projects that will create a domestic supply chain for next generation battery materials. [redacted] believes that silicon anode battery materials projects perfectly align with the DOE's objective and is therefore pleased to present this letter of support.

Please contact me if you have any questions regarding this letter.

Sincerely,

[redacted]

[redacted]

U.S. Department of Energy, Offices of Manufacturing and Energy Supply Chains, and Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

June 15, 2022

RE: Bipartisan Infrastructure Law (BIL)
Battery Materials Processing and Battery Manufacturing DE-FOA-0002678
Letter of Support, Sila Nanotechnologies
Full Application Control Number: 2678-1600

To Whom It Concerns,

[redacted]

[redacted]

U.S. Department of Energy
Offices of Manufacturing and Energy Supply Chains
Energy Efficiency and Renewable Energy
1000 Independence Ave SW
Washington, DC 20585

RE: Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing DE-FOA-0002678 - Letter of Commitment, Sila Nanotechnologies Full Application Control Number: 2678-1600

To Whom It May Concern:

This Letter of Commitment confirms the support and involvement of [redacted] in the development of Sila Nanotechnologies' ("Sila") "Silicon-Anode Commercial Plant" project ("the Project"). Sila proposes to build a commercial scale Silicon-Anode plant to supply material for Electric Vehicle battery production. Over the course of their initial project, Sila will be investing hundreds of millions of dollars in Moses Lake, WA and bringing hundreds of jobs to the local economy. Once completed, this factory will be producing 20 GWh of battery material per year, able to supply ~300,000 Electric Vehicles annually.

[redacted]

On behalf of [redacted], we look forward to working with Sila if awarded for this project.

Sincerely,

[redacted]

Location(s) of Work Documentation

DE-FOA-0002678

Control Number: 2678-1600

Prime Applicant/ Team Member	Address	City	State	Nine Digit Zip Code (ZIP+4)
Sila Nanotechnologies	3741 Road N NE	Moses Lake	Washington	98837-9505
Sila Nanotechnologies	2470 Mariner Square Loop	Alameda	California	94501-1010
Argonne National Labs	9700 South Cass Avenue, Bldg. 200	Argonne	Illinois	60439-4801
Pacific Northwest National Labs	902 Battelle Boulevard	Richland	Washington	99354-1793
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Auto Scale Silicon Anode Plant

Sila Nanotechnologies

Control Number: 2678-1600

Project Summary

Sila Nanotechnologies ("Sila"), the clear leader in the silicon anode space, as it is the only company to have moved from the research and development (R&D) lab to a commercial deployment will construct a factory for its proprietary silicon anode material to supply next-generation electric vehicles. During the initial phase, Sila will invest $400M in Moses Lake, WA. Once completed, this factory will produce 20 GWh of battery material per year, supplying up to 200,000 electric vehicles annually.

With this plant, Sila will create hundreds of well-paid manufacturing jobs to build a robust domestic battery supply chain, replacing graphite material processed in China and used in the anode of lithium-ion batteries. Sila has a demonstrated commitment to hiring a diverse workforce, which extends to the Washington factory.

Key Personnel/Organizations

Sila Nanotechnologies
Argonne National Lab
Pacific Northwest National Lab
[redacted]

Budget and Timeline

Federal funds: $100M **Cost-share: $300M** **Total: $400M**

Key Milestones & Deliverables

Year 1:	[redacted]	**Year 3:**	[redacted]
Year 2:	[redacted]	**Year 4:**	[redacted]

[redacted]

Project Impact

Sila's auto scale silicon anode plant will:

1) create ultra high density lithium ion batteries for electric vehicles
2) build a domestic supply chain for anode material currently processed in Asia
3) build the Moses Lake community in a substantial and equitable way

Sila Nanotechnologies proposes building a silicon anode plant to supply up to 200,000 electric vehicles annually

Statement of Project Objectives
DE-FOA-0002678 CN: #2678-1600
Sila Nanotechnologies
Sila Nanotechnologies Auto Scale Silicon Anode Plant

A. Project Objectives

The primary objective of the Project is to build a [redacted] or 20 GWh/yr equivalent, silicon anode material manufacturing facility. The silicon anode material will be sold to manufacturers of lithium-ion batteries (LIB). Subsequent to this Project, Sila plans to expand the initial facility to [redacted] to accommodate rapidly growing global demand. Secondary objectives of the Project include the creation of equitable jobs, local economic growth, and community benefits, as well as continued technical innovation in collaboration with our partners.This Project is imperative to enable Sila to quickly scale production capacity to support the electric vehicle (EV) market. Having extensively validated our product both internally and in partnership with external customers, Sila anticipates that the successful completion of the Project will result in rapid customer adoption. DOE support for the Project will accelerate large-scale commercialization of Sila's technology and secure a global leadership position for the US in silicon anode production, which in time will displace the graphite production currently dominated by China. However, Sila has foreign competitors who are also aggressively racing to develop silicon materials. DOE support can greatly speed automotive deployment of this technology, create a secure domestic supply of battery materials critical to our transportation infrastructure, and ensure that the US becomes a leader in this next-generation battery technology rather than a follower.

B. Technical Scope Summary

[redacted]

The Project will be conducted in four (4) budget periods, as shown below in **Figure SOPO-1**.

Budget Period 1: [redacted]
Budget Period 2: [redacted]
Budget Period 3: [redacted]
Budget Period 4: [redacted]

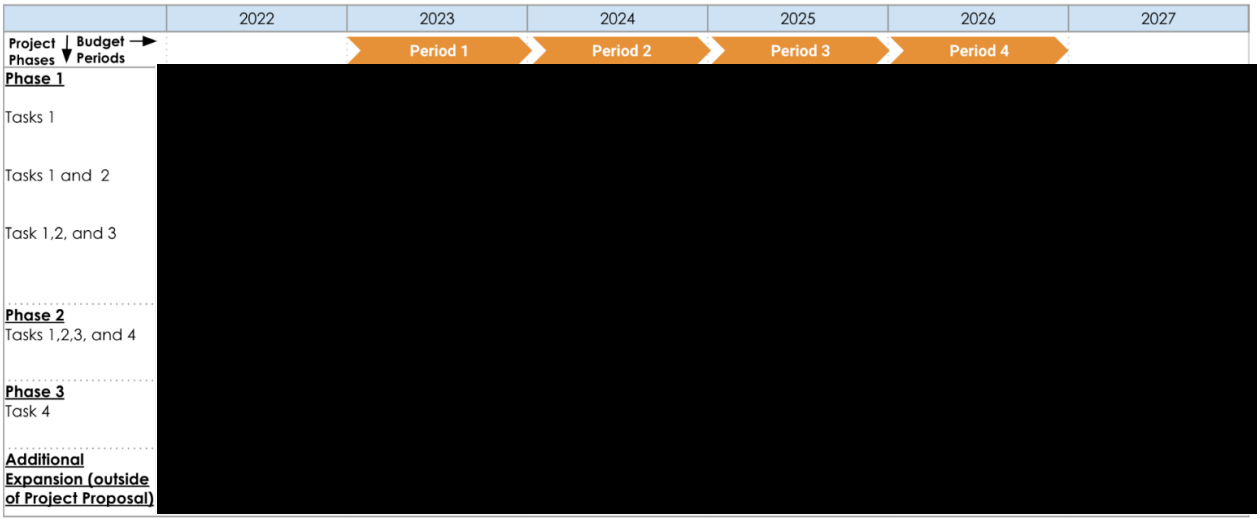

Figure SOPO-1: Project Budget Periods (2023-2026) Shown in Gold

C. Tasks To Be Performed

Project Risks and Mitigations

Project Implementation Barriers and Risk	
Major Risk	**Prioritized Milestones for Mitigation**
[redacted]	M1.1, M2.1 [redacted]
[redacted]	M1.1, M3.1, M3.2, M3.3 [redacted]

[redacted]	M1.5, M1.7, M1.8, M2.6, M2.7 [redacted]

All Budget Periods

Overall Project Management and Planning

Sila will perform project management activities to include project planning and control, subcontractor control, financial management, data management, management of supplies and/or equipment, risk management, and reporting as required to successfully achieve the overall objectives of the project. Sila's Manufacturing Technology Solutions (MTS) Framework and its sub-processes that are used to organize and execute the Project are discussed in the Technical Volume.

Task	Sub Task
Task 0.0 Develop Project Management Plan	0.0.1 Sila will develop and maintain the Project Management Plan (PMP). The content, organization, and requirements for revision of the PMP are identified in the Federal Assistance Reporting Checklist and Instructions. Sila will manage and implement the project in accordance with the PMP.
Task 0.1- Kick-Off Meeting	0.1.1 Sila will participate in a project kickoff meeting with the DOE within 30 days of project initiation.
Task 0.2 - Collaboration with National Lab 1	0.2.1 In collaboration with National Lab 1, we will investigate [redacted]
	0.2.2 We will also explore [redacted]
	0.2.3 [redacted]
Task 0.3 Collaboration with National Lab 2	0.3.1 In collaboration with National Lab 2, Sila will [redacted]
	0.3.2 [redacted] that minimizes inclusion of various artifacts into the sample preparation.

	0.3.3 [redacted]
Task 0.4 Collaboration with Cell Partners	0.4.1 [redacted]
Task 0.5 Community Colleges - Training	0.5.1 Develop a technical training curriculum that would support qualifications for battery materials manufacturing roles within Sila.
Task 0.6 HBCU	0.6.1 Research particle characterization and develop a curriculum in the College of Engineering to support battery engineering and development

Budget Period 1: [redacted]

Task	Sub Task
Task 1.1 [redacted]	1.1.1 [redacted]
	1.1.2 [redacted]
	1.1.3 [redacted]
	1.1.4 [redacted]
	1.1.5 [redacted]
	1.1.6 [redacted]
Task 1.2 [redacted]	1.2.1 [redacted]
	1.2.2 [redacted]
	1.2.3 [redacted]
	1.2.4 [redacted]
Task 1.3 [redacted]	1.3.1 [redacted]

[redacted]	1.3.2 [redacted]
	1.3.3 [redacted]
	1.3.4 [redacted]
	1.3.5 [redacted]
	1.3.6 [redacted]
	1.3.7 [redacted]
	1.3.8 [redacted]
	1.3.9 [redacted]
Task 1.4 [redacted]	1.4.1 [redacted]
1.5 [redacted]	1.5.1 [redacted]
	1.5.2 [redacted]
	1.5.3 [redacted]

Milestone	Milestone Type	Milestone ID	Milestone Description
[redacted]	Technical	M1.1	[redacted]
[redacted]	Technical	M1.2	[redacted].
[redacted]	Technical	M1.3	[redacted]
[redacted]	Technical	M1.4	[redacted]
Community Partnerships	DEIA	M1.5	At least two partnerships (local or national) are actively helping Sila source talent for the Project by the end of 2023.
Inclusion Training for Managers	DEIA	M1.6	Complete the first round of inclusive hiring training for at least [redacted] of the project site hiring managers who have been with Sila for at least six months by the end of 2023.

Disadvantaged Community Partnerships	DEIA	M1.7	Complete plan and finalize local and national partnerships to invest [redacted] in local disadvantaged communities through the end of the Project.
Establish Community Advisory Board	DEIA	M1.8	Finalize charter, including purpose, parameters, and membership, of Sila's local Community Advisory Board (CAB) by the end of 2023.
[redacted]	Go/No-Go Decision Point	DP1.1	[redacted]

Budget Period 2: [redacted]

Task	Sub Task
2.3 [redacted]	2.3.10 [redacted]
	2.3.11 [redacted]
2.5 [redacted]	2.5.4 [redacted]
2.6 [redacted]	2.6.1 [redacted]
	2.6.2 [redacted]
	2.6.3 [redacted]
2.7 [redacted]	2.7.1 [redacted]

Milestone	Milestone Type	Milestone ID	Milestone Description
[redacted]	Technical	M2.1	[redacted]
[redacted]	Technical	M2.2	[redacted]
[redacted]	Technical	M2.3	[redacted]

[redacted]	Technical	M2.4	[redacted]
Employee Resource Group Expansion	DEIA	M2.5	Sila's Employee Resource Groups are formed in and/or extended to project site by the end of 2024.
Disadvantaged Community Investment	DEIA	M2.6	At least [redacted] pledge to invest in disadvantaged communities in and around the project site is invested by the end of 2024.
Inclusion Training for Managers	DEIA	M2.7	Continue the inclusion training for managers within six months of their hire date.
[redacted]	Go/No-Go Decision Point	DP2.1	[redacted]

Budget Period 3: [redacted]

Task	Sub Task
3.2 [redacted]	3.2.4 [redacted]
3.3 [redacted]	3.3.10 [redacted]
	3.3.11 [redacted]
3.4 [redacted]	3.4.1 [redacted]
3.5 [redacted]	3.5.1 [redacted]
	3.5.2 [redacted]
	3.5.3 [redacted]
	3.5.4 [redacted]
3.6 [redacted]	3.6.1 [redacted]
	3.6.2 [redacted]
	3.6.3 [redacted]
3.7 [redacted]	3.7.1 [redacted]

	3.7.2 [redacted]
	3.7.3 [redacted]
	3.7.4 [redacted]

Milestones	Milestone Type	Milestone Number	Milestone Description
[redacted]	Technical	M3.1	[redacted]
[redacted]	Technical	M3.2	[redacted]
[redacted]	Go/No-Go Decision Point	DP3.1	[redacted].
[redacted]	Technical	M3.3	[redacted]
[redacted]	Technical	M3.4	[redacted]
Community College Internships	DEIA	M3.5	At least [redacted] interns from Local Colleges have completed internships by the end of 2025.
Inclusion Training for Managers	DEIA	M3.6	Continue the inclusion training for managers within six months of their hire date.

Budget Period 4: [redacted]

Task	Sub Task
4.2 [redacted]	4.2.4 [redacted]
4.3 [redacted]	4.3.10 [redacted]
	4.3.11 [redacted]
4.4 [redacted]	4.4.1 [redacted]
4.5 [redacted]	4.5.1 [redacted]
	4.5.2 [redacted]

	4.5.3 [redacted]
	4.5.4 [redacted]
4.6 [redacted]	4.6.1 [redacted]
	4.6.2 [redacted]
	4.6.3 [redacted]
4.7 [redacted]	4.7.1 [redacted]
	4.7.2 [redacted]
	4.7.3 [redacted]
	4.7.4 [redacted]

Milestones	Milestone Type	Milestone ID	Milestone Description
[redacted]	Technical	M4.1	[redacted]
[redacted]	Technical	M4.2	[redacted]
[redacted]	Technical	M4.3	[redacted]
[redacted]	Technical	M4.4	[redacted]
[redacted]	Technical	M4.5	[redacted].
Disadvantaged Community Investment	DEIA	M4.6	At least [redacted] invested in local disadvantaged communities in partnership with local and national organizations by the end of 2026.
Local Hiring	DEIA	M4.7	By the end of 2026, at least [redacted] of candidates for the Project be sourced through local partnerships like those with trade organizations and schools, including [redacted]
Inclusion Training for Managers	DEIA	M2.7	Continue the inclusion training for managers within six months of their hire date.

D. Deliverables

In addition to the reports specified in the "Federal Assistance Reporting Checklist", Sila will provide the following to the DOE Project Officer (identified in Block 15 of the Assistance Agreement as the Program Manager):

- Summary of accomplishments and project work report will be prepared for inclusion in the Vehicle Technologies Office annual programmatic progress report. The report will be due by October 31 of each year.

E. Briefings And Technical Presentations

- A technical presentation at the Vehicle Technologies Annual Merit Review Meeting held in Washington, DC.
- Detailed project status update briefings at Washington, DC or via communication/conferencing media approximately twice per year. Briefings will explain the plans, progress, and results of the technical effort.
- Technical paper(s) and presentations as appropriate at technical society meetings, or at technical exchange meetings.

2678-1600_Sila_Nanotechnologies_TechnicalVolume

Project Title: Sila Nanotechnologies Auto Scale Silicon Anode Plant

Technical Volume
Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing
Funding Opportunity Announcement (FOA) Number: DE-FOA-0002678
FOA Type: Initial CFDA: 81.086

FOA Area of Interest 9: Commercial-scale Domestic Next Generation Silicon Anode Active Materials and Electrodes

Proposer:

Technical Point of Contact:
Bill Mulligan
Email: bill@silanano.com;
Phone: 307-413-5083;
Address: 2470 Mariner Square Lp
Alameda, CA 94501

Business Point of Contact:
Gene Berdichevsky
Email: gene@silanano.com;
Phone: 650-814-1885;
Address: 2470 Mariner Square Lp
Alameda, CA 94501

Names of Team Organizations:

[redacted]

Pacific Northwest National Laboratory
Ji-Guang (Jason) Zhang; Yaobin Xu; Xia Cao
Argonne National Laboratory
Christopher Johnson

[redacted]

Performance Period: 48 Months

Confidentiality Statement: *Pages 1-50 of this document may contain trade secrets, confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance or loan agreement between the submitter and the government. The government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source. Markings are in [[ ]].*

Table Of Contents

1. Project Overview **3**
1.1. Background 3
1.2. Project Goal 5
1.3. DOE Impact 6
1.4. Equity Plan: Quality Jobs and Community Benefits 7
2. Technical Description, Innovation, and Impact **9**
2.1. Relevance and Outcomes 9
2.2. Feasibility 11
2.3. Innovation and Impacts 23
3. Work Plan and Market Transformation Plan **24**
3.1. Project Objectives 24
3.2. Technical Scope Summary 25
3.3. Work Breakdown Structure and Task Description Summary 27
3.4. Milestones 30
3.5. Go/No-Go Decision Points 32
3.6. End of Project Goal 33
3.7. Project Schedule 33
3.8. Buy America Requirements for Infrastructure Projects 34
3.9. Project Management 34
3.10. Market Transformation Plan 41
4. Technical Qualifications and Resources **46**
4.1. Sila's Expertise 46
4.2. Partnerships and Partner Capabilities 49
4.3. Sila's Facilities 50

1. Project Overview

1.1. Background

[[United States (US)-developed, next-generation battery material is here, in the market, and powering consumer products today. That same material can and will drive our electric future — from electric vehicles to mass transportation to the electric power grid. Government support of available, proven, next-generation battery material will not only enable the US to take a leadership role in the scaling and manufacturing of new technological innovations in clean energy, but also create substantial economic opportunities for employment. [[The proposed project, which is a [redacted] metric tons per year (tpy), or 20 GWh/yr equivalent, silicon anode manufacturing facility in Moses Lake, WA (the "Project"), will catalyze, expedite, and confirm this opportunity for the US in a de-risked manner.]]

[[Sila Nanotechnologies (Sila) was founded in 2011 by early Tesla employees, Gene Berdichevsky and Alex Jacobs, along with Georgia Tech professor Gleb Yushin, with the mission to set a new standard for batteries and innovation. Today, Sila is the clear leader in the silicon anode space, as Sila is the only company to have moved from R&D laboratory scale to a commercial scale production and commercial deployment in the consumer products field. Sila's first commercially available product, a silicon anode material developed in collaboration with the US Department of Energy (DOE) over the past decade, contributed to an approximately 17% higher energy density battery in the best-in-class WHOOP 4.0 fitness tracker (as featured in T*he New York Times* Sep 8, 2021 article, "*Your Batteries Are Due for Disruption*"). Nearly 1 million WHOOP units containing Sila's technology have been produced and sold. [[With this deployment, commercial lithium-ion batteries (LIB) saw their most significant advancement since their initial release in 1991. Sila is the first and only next generation battery technology company (including silicon anodes, solid state, lithium metal) to achieve these commercial milestones, which will significantly de-risk Sila's full-scale commercialization and the project proposed herein.]]

The global demand for graphite anode material in 2021 was about 400,000 metric tons, generating $4 billion in revenue, and this market is forecasted to grow at an average rate of approximately 25% per year over the coming decade, driven largely by the rapid adoption of electric vehicles (EVs). Today, about 75% of battery-grade graphite is purified and refined in China. Despite being critical to the function of LIBs, the use of graphite as an anode material has seen little innovation over the past 30 years. Until now.

[[Sila's advanced silicon anode material will soon be applied to the automotive industry through partnerships with major Electric Vehicle Original Equipment Makers (EV OEMs). On May 17, 2022, Sila became the first and only next generation battery technology company to move past development partnerships to announce a commercial supply agreement with an EV OEM, Mercedes-Benz (Mercedes). Sila's silicon anode material will be first used in the Mercedes electric G-Class SUV (G-Wagon), pictured below in **Figure TV-1,** beginning in [redacted] Both companies expect additional models to follow shortly thereafter, as publicly stated in interviews by Mercedes CTO Markus Schäfer. [redacted]

[redacted]

In the more than 10 years since its founding, which was catalyzed in-part by a US DOE Advanced Research Projects Agency – Energy (ARPA-E) grant and Series A financing by venture capital firms Sutter Hill Venture and Matrix Partners, along with an early investment by In-Q-Tel, Sila has built an extensive portfolio of Intellectual Property (IP) related to the silicon anode space. Protected by over 200 patents and pending patent applications, as well as substantial trade secrets, Sila's anode technology will ultimately bring approximately 40% cell-level improvement in energy density over today's state of the art automotive LIBs. In sum, Sila has been awarded and successfully delivered on $31.5 million in US DOE grants over the past decade which has contributed to Sila's success in developing its technology, enabling Sila to raise over $925 million in private sector capital.

Figure TV-1. Sila has been selected to power Mercedes vehicles starting with the G-Class SUV in the mid-2020's.

Through its current partnerships with global EV OEMs, Sila has begun to unlock the development of a new generation of both high performance and more affordable EVs. Sila's anode material results in high-energy-density batteries that enable longer range, faster charging, and lower battery pack cost — performance metrics that are critical to the mass adoption of EVs in the US. Accordingly, Sila has a unique opportunity to deploy innovative and high performance battery materials that are not only US developed and manufactured, but that will also accelerate the US conversion to electric vehicles.

[redacted]

1.2. Project Goal

[[The proposed Project is a [redacted] metric tons per year (tpy), or 20 GWh/yr equivalent, silicon anode manufacturing facility in Moses Lake, WA with an anticipated Start of Production (SOP) in [redacted] We expect this project to cost a total of approximately $400M (the "Project"), including the design and engineering, equipment, construction, and staffing. Sila has already acquired a 160 acre site with an existing 600,000 sq.ft. building for this Project in Moses Lake, WA, which will accelerate the construction phase. [redacted]

Moses Lake was chosen after an extensive search process across the United States. [redacted]

The silicon anode material manufactured at this facility will be a replacement for graphite anodes currently used in LIBs and will increase the energy density of LIBs by 20%-40%. [redacted] The ability to scale novel battery technology quickly is a crucial step in driving a global transition to EVs.

The purpose of the proposed Project is to scale Sila's production capacity in order to enter the EV market. While Sila sells material into commercial markets today, the current scale of manufacturing capacity is insufficient to produce the quantity of material, at a low enough cost, to supply the much larger EV market. The construction of a 20 GWh/yr manufacturing facility will enable Sila to increase production volume and decrease costs to a price point which will allow introduction into premium automotive markets. The material for Mercedes and other EV OEMs will be supplied from the facility detailed in this application.

Sila has strong partnerships with companies throughout the automotive and battery manufacturing industries. This includes an investment from Mercedes, a long-running R&D collaboration with BMW, as well as [redacted] Aside from Mercedes and BMW, Sila is also in active discussions with other automakers including [redacted]

[redacted]

For the purposes of this application, Performance Periods will refer to the four annual budget periods of the Project for reporting purposes (annual calendar years between 2023 and 2026, inclusive). Project Phases refer to the phases of build for the Project. The dates, along with annual output capacities for these are included below in **Figure TV-2**. The overlap of these Performance Periods and Project Phases are explained in more detail in Section 3.

Figure TV-2. Factory output schedule and estimated building costs.

Project Phases	Output GWh/yr	Output tpy	Construction Start Date	Production Start Date	Projected Costs
Phase 1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Phase 2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Phase 3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total	**20**	[redacted]			**$400M**

As Sila scales the manufacturing output, the key economic measure of success is the cost to produce a kilogram (kg) of material, including labor, materials, maintenance, depreciation, and utilities but excluding selling costs such as transportation. This is also known as the Cost of Goods Sold (COGS). For engineered silicon to replace graphite globally as the new standard in low-cost LIBs, one critical factor will be the COGS for a silicon anode as compared to "graphite price parity" — the point at which it is cheaper to use a silicon anode in a cell than graphite. [redacted]

1.3. DOE Impact

[[Sila, in collaboration with multiple DOE offices and across numerous DOE awards, has spent the last decade creating a product that enables batteries with substantially better performance than the graphite-based batteries used today. As a result of that work and as demonstrated throughout this application, [redacted] With the large majority of technical risks retired through Sila's grant

awards and investments, world leading R&D, successful fundraising, and successful commercial launch, the final remaining hurdle is to scale production to compete with the low price point of graphite at a global scale. Manufacturing a first-of-its-kind material at scale requires both significant investment and significant time for technology development and engineering. It's not easy, but Sila has a strategy and a plan to make this happen.

Sila has, thus far, relied on private funding from venture capital (VC) firms, private partners, and select other groups, as well as government support in the form of grants. The DOE funding requested in this application is the solution to bridging the gap between smaller-scale venture funding and larger-scale transformational funds, such as growth equity, debt funding through traditional banks or private equity funds. Not only will this grant put Sila substantially closer to the necessary scale to be a long-term successful business, it also confirms to the private sector that the US government supports projects that replace foreign battery supply chains with domestic production. [redacted]

DOE support for this Project will accelerate large-scale commercialization of Sila's technology and secure a global leadership position for the US in silicon anode production, which in time will displace the graphite production currently dominated by China. However, Sila has foreign competitors who are also aggressively racing to develop silicon materials. DOE support can greatly speed automotive deployment of this technology, create a secure domestic supply of battery materials critical to our transportation infrastructure, and ensure that the US becomes a leader in this next generation battery technology rather than a follower.]]

1.4. Equity Plan: Quality Jobs and Community Benefits

[[As the lead applicant for this proposal, Sila will leverage its established Diversity, Equity, and Inclusion (DEI) Program throughout the proposed Project. Our existing DEI program, led by a passionate and experienced management team, is defined by our DEI Vision and three strategic priorities:

1. Build a diverse workforce and thriving cross-functional teams.
2. Develop equitable and inclusive business systems and leaders.
3. Align with strategic partners and investments.

Details on Sila's approach, goals, and metrics for creating a diverse, equitable and inclusive workforce, generally and in the proposed Project, can be found in the Equity Plan of this application. It includes commitments to partner with local organizations, like the [redacted] and national organizations, like Historically Black Colleges and Universities (HBCU), to attract diverse talent. [redacted], is a partner on this application. It also describes our plans to foster inclusion, equity, and support for our diverse workforce by, for example, expanding our Employee Resource Groups to Moses Lake and by continuing to practice transparency in our people-focused processes.

Partnership with key community-based, labor, and worker organizations and groups is a key part of our plan to attract, train, and retain skilled workers in high-quality jobs. Toward this end, we have formed connections with community partners, such as [redacted] We plan to fund the programming, equipment, and personnel needed at these, and other, schools to train local workforce in skills needed to thrive

in Sila's high-quality jobs. We commit that, by the end of 2026, at least [redacted] candidates for Sila's Moses Lake roles will be sourced through partnerships with local trade organizations and schools, including [redacted], creating an incentive and a path for higher-education attainment. **Figure TV-3** shows how Sila will interact with community groups, including community colleges, underrepresented partners, and local businesses to make a more prosperous Moses Lake.

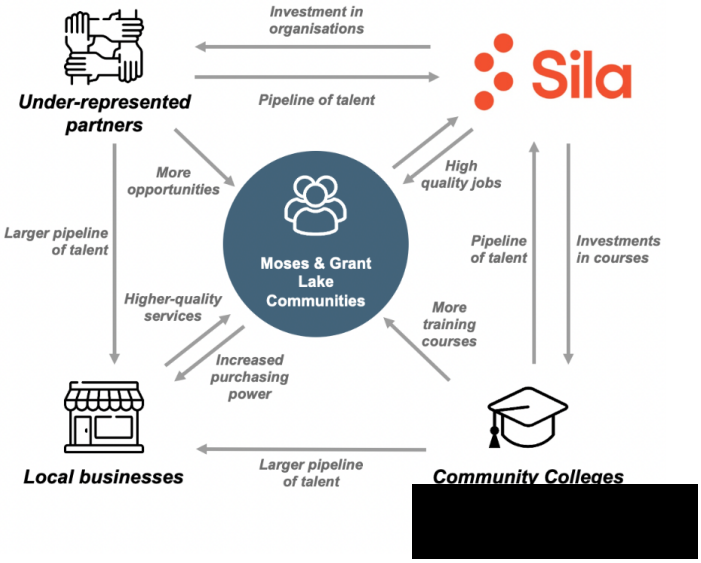

Figure TV-3. Sila involvement with Moses Lake community.

Sila is committed to assuring that [redacted] or more of the Project benefits directly impact disadvantaged communities (DACs). The Justice40 section of our Equity Plan describes our approach. It includes a list of benefits and commitments for the three areas for which Grant County meets thresholds for DACs in the Climate and Economic Justice Screening Tool: Workforce Development, Health Burdens, and Clean Energy and Energy Efficiency.

The majority of the benefits will flow through workforce development because our Project and local partnerships with schools will create high-quality job opportunities for the local workforce that increase income, skill development, higher education enrollment, high school degree attainment, clean energy and climate-smart job training, and subsequent good job placement and advancement. We are committed to paying higher wages than the Grant County average for at least [redacted] of our jobs. At the time of this writing, Sila's lowest paying jobs start at [redacted] which is higher than the Grant County average. We also provide [redacted] to increase the quality of our jobs as well as to reduce health burdens.

Sila has and will continue to hire workers who have lost or anticipate losing jobs due to the displacement of fossil energy. At our Alameda facility, over 13% of our current workforce (over 40 people) come from oil and gas, chemical, internal combustion engine, and other fossil-fuel related industries. Employees from these industries have skills that are highly applicable to Sila's manufacturing processes, and especially relevant to the proposed Project. People from low- to moderate-income communities that have lost jobs due to fossil fuel displacement can fill, and have filled, roles like equipment maintenance, manufacturing operations, safety technician, and quality technician at Sila.

We will also seek to minimize the environmental footprint of our operation by following all environmental laws and permitting requirements and by conducting a life cycle analysis of our Moses Lake facility within [redacted] so that we can strive to achieve a vision for our operations to have a net neutral impact.

Additionally, Sila has pledged to invest at least [redacted] in DACs in the Moses Lake and Grant County area and will be forming a Community Outreach Committee that will support the

ideas laid out in the Equity Plan. As we move into the construction and operation phases of the facility, we expect to add local residents, leaders, and organizations as members to create an advisory group to ensure ongoing communication between Sila and the community. This group will also provide insight and guidance on where Sila can further support and develop surrounding areas, hire local workers from underserved and impoverished neighborhoods, and invest in local organizations.

Through these efforts and the more detailed plans and goals laid out in our Equity Plan, we are confident that the delivery of high-quality jobs, minimal environmental impact, and allocation of [redacted] of project benefits to disadvantaged communities underpins this Project's viability through social risk mitigation and by aligning Sila's incentives with those of the community.]]

2. Technical Description, Innovation, and Impact

2.1. Relevance and Outcomes

Anodes and cathode materials largely define the cost and performance attainable by LIBs including volumetric and gravimetric energy densities, charging rate, cycle stability, and calendar life. While global production today is constrained by the nickel in the cathode, the overall technical performance of high-energy LIBs today is largely anode limited.

[[Today's anode material is a graphitic carbon with a theoretical gravimetric capacity of 372 mAh/g and a volumetric capacity of approximately 750mAh/cm^3. Moving from graphite to silicon-based anodes enables a significant performance improvement, as Si exhibits approximately 10 times higher gravimetric capacity (3579 mAh/g) and approximately three times higher volumetric capacity on mAh/cm^3 basis (2,190mAh/cm^3). Replacing graphite anodes with high-capacity Si anode materials can enable [redacted] increase in the LIB cell energy density over today's state of the art LIBs, as described in Sila's product roadmap, shown below in **Figure TV-4**. These performance improvements, along with the enabled cost reductions, have motivated manufacturers to look for viable high-capacity Si anode technologies.

[redacted]

Figure TV-4. Sila Product Roadmap will drive significant improvements to LIBs.

Successful execution of the Project would enable Sila to deliver on the performance outlined in this product roadmap, reaching energy densities in automotive cells of [redacted]

Prior to Sila's commercial success, dozens of companies worked on silicon anodes over the past 15 years without ever commercializing the chemistry capable of replacing graphite. Sila's material is unique and has been able to simultaneously solve a number of issues that plagued prior approaches, as detailed in the next section.

[redacted]

As the first (and currently only) company to commercially deploy a silicon-based anode, Sila has [redacted] anode.

shown approximately 17% energy density increase in battery cells operating in real-world products. [redacted] Due to the strength of these test results and commercial success, Sila is the only company to have entered into tangible vehicle commercialization contracts.

Sila is catalyzing a domestic supply chain for this anode material at a scale necessary to support EV production, starting with 20 GWh/yr outlined in this Project. This Project will expand the capabilities of the United States in advancing battery manufacturing by providing a domestic supply chain of critical components. This domestically-produced material will replace graphite currently processed primarily in China. In addition, this Project will result in the direct employment of over 100 employees at the Moses Lake plant, [redacted]

2.2. Feasibility

2.2.1 Technology Feasibility

[[Unlike graphite, Silicon (Si) does not store Li^+ ions by an "intercalation" mechanism which is characterized by a reversible insertion and extraction to or from the interstitial positions within a crystal structure. Instead, Si operates by a so-called "conversion" mechanism, where Si and Li atoms form electrochemical alloys, breaking and restoring chemical bonds during charge-discharge cycling resulting in dramatically more energy stored per atom of silicon material. Of all the elements that electrochemically alloy with Li, Si offers by far the best performance characteristics. In a fully lithiated state, Si offers even higher volumetric capacity than pure Li metal (2190 mAh/cm^3 for lithiated Si vs. 2062 mAh/cm^3 for Li metal vs. approximately 700 mAh/cm^3 for lithiated graphite).

Unfortunately, particles of pure Si are unstable as anodes. They tend to degrade mechanically and, as shown in **Figure TV-6**, create electrolyte degradation, solid electrolyte interphase (SEI) growth, and a gradual loss of cyclable Li in LIBs, resulting in rapid increase in resistance and capacity fade in full cells.

All Si anode technologies are limited by the massive volume change that accompanies silicon's ability to absorb multiple Li ions per Si atom. This volume expansion causes individual Si particles in Si-containing composites, Silicon-oxides and Si alloys to mechanically pulverize during extended LIB charge/discharge cycling when their dimensions exceed a critical size. Si

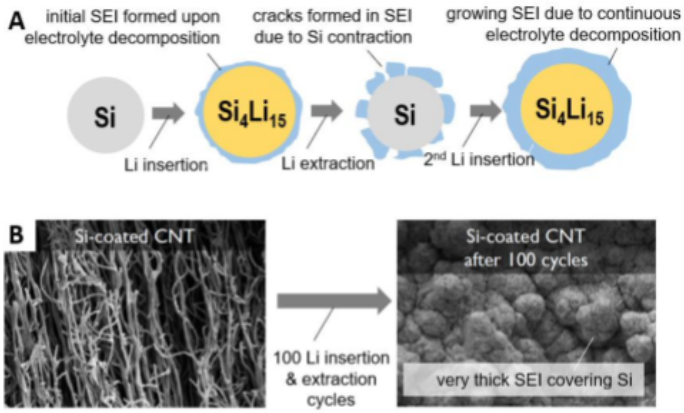

Figure TV-6. SEI growth on nanostructured Si: (A) schematic explaining SEI growth, (B) experiments showing very thick SEI grown on Si-coated CNTs after 100 charge-discharge cycles.

particles smaller than the critical size (approximately 100 nm) can be made mechanically stable, but they have high specific surface area (SSA) for side reactions, which causes unwanted electrolyte decomposition and SEI formation and growth.

The biggest challenge is the breakage of the SEI caused by the volume changes. The SEI, which passivates the surface of LIB anodes, serves a critical function as it prevents side reactions from continuing to occur in a LIB. If it's disturbed or destroyed, then the side reactions quickly degrade the battery. A lack of SEI stability, especially at higher temperatures, causes capacity losses, cathode degradation, gassing, resistance growth, irreversible swelling in cell size, electrolyte consumption, and electrolyte starvation. Simply put, an unstable SEI on the surface of a silicon anode will result in very fast battery degradation.

Non-Sila Si anodes are typically divided into three major classes. We also discuss lithium metal anodes as an alternative to silicon anodes below.

First, there are high SSA Si nanoparticles and Si/C nanocomposite particles. These nanoparticles overcome mechanical pulverization of Si at the expense of high surface area in contact with both air and electrolyte. These types of anodes suffer from challenges including the following: handling and manufacturing at automotive scale due to reactivity of nano-Si and its "combustible dust" properties; high first-cycle losses of 20% or more due to both the high surface area in contact with electrolyte and a native oxide on Si nanoparticles; and poor cycling stability and calendar life, especially at elevated temperatures, due to unstable SEI on the Si surface and rapid consumption of SEI-building additives in the electrolyte. These technologies have never been commercialized in either the consumer electronics or automotive markets to replace graphite.

Second, there are two-dimensional 2D Si anodes such as monolithic thin film anodes or Si nanowires grown on current collectors, which require modifications in LIB manufacturing lines and involve processes that are too expensive for EV applications. The production of such 2D anodes is expensive and slow in large part due to the high degree of planar uniformity required in thickness, porosity, and Si content. This is challenging to attain even at small volumes, and impossible to scale in automotive quantities. Additionally, these types of technologies are often not compatible with wound cells, which are commonly used due to cheaper manufacturing, and are often brittle and difficult to handle at high speed. These technologies have never been commercialized in either the consumer electronics or automotive markets.

Third, there are micron-scale low-surface area Si oxide (SiO_x) powders that can also only be used as additives (3-10 wt.%) in graphite anodes due to their high first-cycle losses, often over 30%, and poor mechanical and SEI stability during long-term cycling. These materials form Li_4SiO_4 and Li_2O in between nano-scale domains of lithiated Si during the first charge, significantly improving their mechanical stability and reducing their volume expansion compared to pure Si. Unfortunately, a significant portion of Li becomes trapped inside such particles and thus irreversibly lost. In addition, their chemical and SEI stabilities remain inferior to that of conventional graphite, leading to faster cell degradation and swelling. As a result, they can only be used in small quantities (3-10 wt. %) as additives when mixed with graphite anodes and despite being commercially available for over a decade, are still challenging to deploy and thus are used in very few cells (notably the Tesla-Panasonic cells, first launched in 2012) as a minor additive. All attempts to move beyond a minor additive for a decade have failed.

Another class of high-capacity anodes are lithium metal (LM) anodes. Theoretically, LM

anodes could offer comparable performance to Si anodes due to their high volumetric capacity. However, LM's have tendencies to form unstable SEI in contact with liquid electrolytes, to expand, pulverize, form electrochemically isolated regions, and finally form Li metal dendrites that lead to the formation of internal shorts and possibly thermal runaway. The use of solid electrolytes to minimize formation of dendrites and overcome some of the major safety issues, would typically require formation of substantially different LIB manufacturing lines for production. This would mean the need to develop and build entirely new battery manufacturing facilities at massive automotive scales, which would require access to tremendous capital to do so, while the technology is still immature. Achieving high manufacturing yield and low manufacturing cost in a reasonable time would also be extremely challenging, especially as conventional LIB manufacturing has over 30 years head start and becomes cheaper and cheaper every year. In addition, other physical drawbacks of most LM technologies, such as low ionic conductivity of solid electrolytes, high charge transfer resistance, low voltage stability, tendencies to form non-uniform regions and many others indicate that LM technology is unlikely to scale to a low cost automotive solution.

	Technology	In Market Today	Higher Energy Density	Demonstrated in Consumer & Auto Cells	Drops-Into Gigafactories	Readily Scalable to Auto
Silicon	Sila Structurally Engineered Material	●	●	●	●	●
	Silicon & Simple Silicon-Carbon Composites	○	◕	◓	◕	◓
	2D Electrodes	○	◕	◓	◔	◔
	Silicon Oxides	●	◔	◕	◕	◕
Lithium	Polymer "Solid State"	○	◕	◓	◔	◕
	Ceramic Solid State	○	◕	◔	◔	◔
Carbon	Graphite (Incumbent)	●	○	●	●	●

Figure TV-7. Comparison of Sila anode technology with different classes of non-Sila anodes.

[[Sila's anode materials offer multiple key advantages over other Si anode technologies, improving the current technology state and affording an increase in convenience, range, cycle life, and a LIB reduction in cost. The biggest advantage is the maturity Sila has been able to demonstrate by launching in the market. Sila's is the only technology that can replace graphite entirely to have reached the market to date. Sila's technology is readily scalable, fully compatible in gigafactories, and works not only for the automotive market, but also for the initial consumer electronics market to help reduce risk and drive near term revenue. We have summarized these benefits, and how they compare to other technologies, in **Figure TV-7**.

[redacted]

[redacted]

2.2.2 Material Technical Performance

[redacted]

2.2.3 Examples of Performance in Automotive Sized Cells

[redacted]

2.2.4 Technology Scalability

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

2.2.5 Cost Targets and Progression

[redacted]

[redacted]

2.2.6 Additional Cost Reduction at the Vehicle Level Due to Sila's Anode

2.2.7 Next Generation Synthesis Research for Further Cost Reduction

2.2.8 Operating Plan, Market Penetration & Financial Analysis

[redacted]

2.2.9 Training and Retaining Qualified Workers

[[The Project's manufacturing operations, tools, and process recipes will primarily be maintained and operated by full-time Sila employees, who receive extensive training and competitive compensation packages. Sila was recognized with five Comparably Awards including Best Company Culture, ranked #19 of the Top 50 (December 2021); Best CEO, ranked #11th of the Top 50 (December 2021); Best Company Happiness, ranked #24 of the Top 50 (October 2021); Best Company Leadership Teams, #41 of the Top 50 (July 2021); and Best CEOs for Diversity, ranked #17 of the Top 50 (June 2021). Sila's company culture, generous benefits and compensation, and caring and experienced management are attractive to discerning employees. There are plans to hire staffing to support start-up and ramp-up of our anode operations. Included in these plans are goals and metrics to assure we are hiring a diverse workforce into an equitable and inclusive work environment. Please refer to the **Equity Volume** for additional discussion.

The proposed factory will be located in a developed area with a well-trained workforce for such projects. Moses Lake, WA is a region that has experienced large growth and numerous construction projects recently. There is an experienced population of industrial professionals, construction workers, as well as initiatives in place to foster further talent development.

Furthermore, as a part of the Project, Sila is partnering with [redacted] to continue to grow the technical skills of the community in and around Moses Lake. [redacted] These programs will focus on teaching local students technical, mechanical, electrical, and software skills that will support their career opportunities in manufacturing. Sila in turn will be sponsoring internships for students from these schools to train them on the specifics of operating tooling in our factory. This collaboration between Sila and the local community is critical for maintaining a highly skilled workforce in the area and growing the knowledge base.]]

2.3. Innovation and Impacts

[[As explained above, Sila's silicon anode is a drop-in replacement for current graphite material in LIB anodes that increases the energy density of LIBs and requires no manufacturing equipment changes by the cell makers. As outlined and demonstrated in **Figures TV-5 to TV-16**, Sila's composite silicon anode material achieves excellent performance on all key metrics required by automakers. Through tremendous innovation, Sila has overcome monumental challenges which have prohibited a step change to higher energy density silicon anode technology to date. In achieving all of this, Sila has accumulated over 200 patents and patent applications including many foundational patents on Si anode composite technologies with priority dating from 2010 to 2012. Sila is now focused on scaling quickly to achieve maximum market impact.

Due to the maturity of the graphite market, and the lack of meaningful silicon anode materials in the market today, the incumbent graphite producers are effectively Sila's major competitors. Graphite, both natural and artificial, is currently produced at a rate of approximately 400,000 tons per year, or 334 GWh/yr. This Project, at 20 GWh/yr, will jump start a robust domestic supply chain for battery materials [redacted]

Other silicon-based anode technologies are being developed by startups and in the research divisions of incumbents, but they do not play a significant role in the market today. In most cases, these other technologies are limited by [redacted]

Sila is *similar* to the incumbents in that our material replaces graphite directly, and drops into existing anode slurrying and coating equipment at cell manufacturing facilities. This means that all current "gigafactories", as well as those that will be built between now and the time we ramp up our production, will be able to use Sila material without any equipment modifications or additions. This attribute is particularly valuable in the US, as government funding programs to support the deployment of gigafactories are not as widely available as in other countries like China and Europe, which regularly support the development of new gigafactories. Sila is *different* from incumbents in that our material is silicon-dominant, so that [redacted]

[redacted] while each ton of graphite only provides for about 1 MWh of LIB energy. Sila material technologies enable higher specific energy, higher energy density, and faster charging to consumer and automotive LIBs.

For auto industry testing, Sila has been actively building supply relationships and providing samples of its material to major cell manufacturers including [redacted] Cell manufacturers are achieving major performance boosts in cells by using Sila's anodes, and as a result, these customers are eager to see Sila significantly increase its manufacturing capabilities.

BMW and Mercedes have signed development contracts with Sila given the tremendous performance achieved in various tests. Some of the tests have been with Sila's OEM development partners, while others have been generated in their own facilities or with Sila's, or OEM's, cell development partners. Sila's engagements with other automotive partners, including [redacted] are ongoing and expected to generate enormous demand in the US and international markets. As noted above, Mercedes already signed a [redacted] supply agreement with Sila. [redacted]

3. Work Plan and Market Transformation Plan

3.1. Project Objectives

[[The primary objective of the Project is to build a [redacted] ton per year (tpy), or 20 GWh/yr equivalent, silicon anode material manufacturing facility powered by renewable energy. The silicon anode material will be sold to manufacturers of lithium ion batteries (LIB). Subsequent to this Project, Sila plans to expand the initial facility to [redacted] to accommodate rapidly growing global demand. Secondary objectives of the Project include creation of equitable jobs, local economic growth and community benefits, as well as continued technical innovation in collaboration with our partners.

In order to allow Sila to fulfill rapidly growing EV market demands, this initial Project is imperative. While Sila sells material into commercial markets today, the current volume of manufacturing is too small to support the much larger EV market. The construction of a 20 GWh/yr manufacturing facility will enable Sila to produce the volume at low enough cost to allow introduction into premium automotive markets. Sila has already begun to see the impact of such a plan with its partnership with Mercedes to supply material for vehicle production starting in [redacted]. The material for the Mercedes will be supplied from the factory detailed in this application. Due to the extensive validation work completed to date in combination with current partner relationships, Sila anticipates that the deployment of the initial facility will directly result in increased customer adoption.

Successful completion of this project will also create sufficient investor confidence to successfully fundraise and [redacted]

3.2. Technical Scope Summary

[redacted]

[redacted]

3.2.1 Budget Periods

[[For the purposes of this application, Budget Periods will refer to the four annual budget periods of the project for reporting purposes (annual calendar years between [redacted] inclusive). Project Phases refer to the phases of build for the Project. The overlap of these Performance Periods and Project Phases are explained in more detail below. Below are brief descriptions of project milestones likely to fall into each budget period]]

3.2.1.1 Budget Period 1 [redacted]

3.2.1.2 Budget Period 2 [redacted]

3.2.1.3 Budget Period 3 [redacted]

3.2.1.4 Budget Period 4 [redacted]

3.3. Work Breakdown Structure and Task Description Summary

[redacted] Due to the fact that some of the subprograms described above are happening in parallel or have some overlap, some tasks described below happen in parallel. Additionally, the subprograms described above will also span budget over multiple budget periods.

3.3.0 All Budget Periods Tasks

Task	Sub Task
Task 0.0 Develop Project Management Plan	0.0.1 Sila will develop and maintain the Project Management Plan (PMP)
Task 0.1- Kick-Off Meeting	0.1.1 Sila will participate in a project kickoff meeting with the Department of Energy within 30 days of project initiation.
Task 0.2 - Collaboration with PNNL	0.2.1 Collaboration with PNNL (the team led by Dr. Jiguang Zhang)
	0.2.2 We will also explore [redacted]
	0.2.3 [redacted]
Task 0.3 Collaboration with Argonne National Labs (ANL)	0.3.1 Collaboration with ANL (the team led by Dr. Christopher Johnson)
	0.3.2 Such collaboration will also involve [redacted]
	0.3.3 [redacted]
Task 0.4 Collaboration with [redacted]	0.4.1 [redacted]

Task 0.5 Community Colleges - Training	0.5.1 Develop technical training curriculum that would support qualifications for battery materials manufacturing roles within Sila.
Task 0.6 [redacted] collaboration	0.6.1 Research particle characterization, develop curriculum in the College of Engineering to support battery engineering and development.

3.3.1 Budget Period 1 Task: [redacted]

Task	Sub Task
Task 1.1 [redacted]	1.1.1 [redacted]
	1.1.2 [redacted]
	1.1.3 [redacted]
	1.1.4 [redacted]
	1.1.5 [redacted]
	1.1.6 [redacted]
Task 1.2 [redacted]	1.2.1 [redacted]
	1.2.2 [redacted]
	1.2.3 [redacted]
	1.2.4 [redacted]
Task 1.3 [redacted]	1.3.1 [redacted]
	1.3.2 [redacted]
	1.3.3 [redacted]
	1.3.4 [redacted]
	1.3.5 [redacted]
	1.3.6 [redacted]
	1.3.7 [redacted]
	1.3.8 [redacted]
	1.3.9 [redacted]
Task 1.4 [redacted]	1.4.1 [redacted]
5. [redacted]	1.5.1 [redacted]
	1.5.2 [redacted]
	1.5.3 [redacted]

3.3.2 Budget Period 2 Tasks: [redacted]

Task	Sub Task
2.3 [redacted]	2.3.10 [redacted]
	2.3.11 [redacted]
2.5 [redacted]	2.5.4 [redacted]
2.6 [redacted]	2.6.1 [redacted]
	2.6.2 [redacted]
	2.6.3 [redacted]
2.7 [redacted]	2.7.1 [redacted]

3.3.3 Budget Period 3 Tasks: [redacted]

Task	Sub Task
3.2 [redacted]	3.2.4 [redacted]
3.3 [redacted]	3.3.10 [redacted]
	3.3.11 [redacted]
3.4 [redacted]	3.4.1 [redacted]
3.5 [redacted]	3.5.1 [redacted]
	3.5.2 [redacted]
	3.5.3 [redacted]
	3.5.4 [redacted]
3.6 [redacted]	3.6.1 [redacted]
	3.6.2 [redacted]
	3.6.3 [redacted]
3.7 [redacted]	3.7.1 [redacted]
	3.7.2 [redacted]
	3.7.3 [redacted]
	3.7.4 [redacted]

3.3.4 Budget Period 4 Tasks: [redacted]

Task	Sub Task
4.2 [redacted]	4.2.4 [redacted]

[redacted]	
4.3 [redacted]	4.3.10 [redacted]
	4.3.11 [redacted]
4.4 [redacted]	4.4.1 [redacted]
4.5 [redacted]	4.5.1 [redacted]
	4.5.2 [redacted]
	4.5.3 [redacted]
	4.5.4 [redacted]
4.6 [redacted]	4.6.1 [redacted]
	4.6.2 [redacted]
	4.6.3 [redacted]
4.7 [redacted]	4.7.1 [redacted]
	4.7.2 [redacted]
	4.7.3 [redacted]
	4.7.4 [redacted]

]]

3.4. Milestones

[[Below are the project milestones for each budget period. They include both technical and diversity, equity, inclusion and accessibility milestones.

3.4.1 Budget Period 1 Milestones: [redacted]

Milestone	Milestone Type	Milestone ID / Qtr	Milestone Description
[redacted]	Technical	M1.1 / Q1	[redacted]
[redacted]	Technical	M1.2 / Q2	[redacted]
[redacted]	Technical	M1.3 /Q3	[redacted]
[redacted]	Technical	M1.4 / Q4	[redacted]
Community Partnerships	DEIA	M1.5 / Q4	[redacted]

Inclusion Training for Managers	DEIA	M1.6 / Q4	Complete first round of inclusive hiring training for at least [redacted] of Moses Lake hiring managers who have been with Sila at least six months by the end of 2023.
Disadvantaged Community Partnerships	DEIA	M1.7 / Q4	Complete plan and finalize local and national partnerships to invest [redacted] in local disadvantaged communities through the end of the Project.
Establish Community Advisory Board	DEIA	M1.8 / Q4	Finalize charter, including purpose, parameters, and membership, of Sila's Moses Lake Community Advisory Board (CAB) by the end of 2023.
[redacted]	Go/No-Go	DP1.1 / Q4	[redacted]

3.4.2 Budget Period 2 Milestones: [redacted]

Milestone	Milestone Type	Milestone ID / Qtr	Milestone Description
[redacted]	Technical	M2.1 / Q1	[redacted]
[redacted]	Technical	M2.2 / Q2	[redacted]
[redacted]	Technical	M2.3 / Q3	[redacted]
[redacted]	Technical	M2.4 / Q4	[redacted]
Employee Resource Group Expansion	DEIA	M2.5 / Q4	Sila's Employee Resource Groups are formed in and/or extended to Moses Lake by the end of 2024.
Disadvantaged Community Investment	DEIA	M2.6 / Q4	At least [redacted] pledge to invest in disadvantaged communities in and around Moses Lake is invested by the end of 2024.
Inclusion Training for Managers	DEIA	M2.7 / Q4	Continue inclusion training for managers within six months of hire date.
[redacted]	Go/No-Go	DP2.1 / Q4	[redacted]

3.4.3 Budget Period 3 Milestones: [redacted]

Milestones	Milestone Type	Milestone ID / Qtr	Milestone Description
[redacted]	Technical	M3.1 / Q1	[redacted]
[redacted]	Technical	M3.2 / Q2	[redacted]

[redacted]	Go/No-Go	DP3.1 / Q2	[redacted]
[redacted]	Technical	M3.3 / Q3	[redacted]
[redacted]	Technical	M3.4 / Q4	[redacted]
Community College Internships	DEIA	M3.5 / Q4	At least [redacted] interns from [redacted] have completed internships by the end of 2025.
Inclusion Training for Managers	DEIA	M3.6 / Q4	Continue inclusion training for managers within six months of hire date.

3.4.4 Budget Period 4 Milestones: [redacted]

Milestones	Milestone Type	Milestone ID / Qtr	Milestone Description
[redacted]	Technical	M4.1 / Q1	[redacted]
[redacted]	Technical	M4.2 / Q2	[redacted]
[redacted]	Technical	M4.3 / Q3	[redacted]
[redacted]	Technical	M4.4 / Q4	[redacted]
[redacted]	Technical	M4.5 / Q4	[redacted]
Disadvantaged Community Investment	DEIA	M4.6 / Q4	At least [redacted] invested in local disadvantaged communities in partnership with local and national organizations by the end of 2026.
Local Hiring	DEIA	M4.7 / Q4	By the end of 2026, at least [redacted] of candidates for Moses Lake roles will be sourced through local partnerships like those with trade organizations and schools, including [redacted]
Inclusion Training for Managers	DEIA	M2.7 / Q4	Continue inclusion training for managers within six months of hire date.

]]

3.5. Go/No-Go Decision Points

[[The Go/No-Go decision points are key points where the Project Core Team will assess progress and determine if the plan forward beyond the decision point needs to be modified to ensure success of the project.

Go/No-Go Decision Points	Go/No-Go Decision Point Numbers	Go/No/Go Descriptions
[redacted]	DP1.1	[redacted]
[redacted]	DP2.1	[redacted]
[redacted]	DP3.1	[redacted]

]]

3.6. End of Project Goal

[[The end of project goal is to complete construction and start of production activities of the 20 GWh/yr [redacted] silicon anode manufacturing facility that will allow Sila to [redacted] and begin supplying the automotive customers with production shipments. The secondary goals are for the factory and its staff to be a reflection of the surrounding community with [redacted] of our staff sourced through local partnerships and for Sila to be a positive presence in the community with investments in training and STEM education.]]

3.7. Project Schedule

[[**3.7.1 Project Phase 1 -** [redacted]

3.7.2. Project Phase 2 - [redacted]

3.7.3. Project Phase 3 - [redacted]

Figure TV-24 shows the full Project Schedule.]]

3.8. Buy America Requirements for Infrastructure Projects

The Project will not be publicly-owned nor serve a public function. Rather, the Project will be privately owned and utilized for private use. As a consequence, the Buy American requirements described in the funding opportunity announcement do not apply. The Project will not involve the construction, alteration, and/or repair of public infrastructure in the United States as defined by this funding opportunity announcement, applicable statutes, or guidance.

3.9. Project Management

[[**Figure TV-25** outlines the overall Project management structure and key personnel responsible for completion of specific Tasks and Processes. [redacted]

3.9.1. Organization and Approach to Managing the Work.

[redacted]

3.9.2. Roles of Project Team Members. [[Sila's Development and Operations group includes technical and operational functions that will support this effort as illustrated in **Figure TV-25**:

- The Project will be managed by Dr. Bill Mulligan (COO, PI for this Project). [redacted]

[redacted]

- [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

- [redacted]

Our highly skilled internal resources have the technical and commercial capabilities that will ensure this Project is implemented successfully. The teams will enable Sila to [redacted] Together, the teams will work in a concerted effort to bring the Project to successful completion.]]

3.9.3. Critical Handoffs/Interdependencies Among Project Team Members

[redacted]

3.9.4. Technical and Management Aspects of the Management Plan

3.9.5. Approach to Handling Project Changes and Risk Management

[redacted]

3.9.6. Approach to Quality Assurance/Control

3.9.7. Communication Maintenance Among Project Team Members

[redacted]

3.9.8 Project Regulatory Requirements

[[The Project will comply with all applicable regulatory requirements. Sila has been engaged with the Washington Department of Ecology and is partnering with the State of Washington to ensure all regulatory items are managed. See the Environmental Questionnaire and Environmental Volume for more information.]]

3.9.9 Cost Sharing

[[The Project is targeting a 75% cost share (25% federal funds) over four budget periods and a total project budget of $400 million. The extent of leverage measured in terms of annual production capacity per government dollar invested for the entire project is [redacted] per government dollar invested at the 20 GWh/yr scale. Please refer to the Budget Justification Sheet for details.]]

3.10. Market Transformation Plan

3.10.1. Target Market

[[Sila's primary market for its next-generation silicon anode is the battery electric vehicle (BEV) market. [redacted] The battery electric vehicle (BEV) market is growing rapidly and BEVs are expected to make up approximately 30% of all vehicles (20-25 million cars per year) globally by 2030. [redacted] These estimates already promise astonishing growth in the market, yet analysts have been *increasing* their projections for EV market penetration every year for the last three years.

Recently, major Auto OEMs have announced aggressive targets to electrify their fleets, driven by improving technology, regulatory incentives, and changing consumer preferences. While the market is split across over 15+ Auto OEMs (excluding China), the market share for battery manufacturers is more concentrated with six top-tier players today. [redacted]

Sila's anode technology will also directly help drive reductions in greenhouse gas emissions. [redacted]

China, Europe, and North America are projected to be the largest geographic markets for BEVs, [redacted]

[redacted]

Electrification is occurring across all vehicle segments. While the majority of BEVs sold today are compacts and sedans, SUVs/CUVs are projected to have the fastest growth across segments. SUV market share is increasing globally, with SUVs/CUVs and pickups making up 55% of announced EV models worldwide. OEMs are incentivized to electrify this segment due to its higher prices/profit margins and targeted government policies (e.g. EU ZLEV credit scheme). As driving range remains a top consumer concern globally for EV adoption, Auto OEMs are competing to reduce battery pack costs while maximizing range.

[redacted]

3.10.2. Competition

[[The incumbent source of anode material today is primarily natural and artificial graphite, representing about 400,000 tons per year or 334 GWh (of which 216 GWh is for xEVs) originating mostly in China, Japan, and South Korea. [redacted]

[[A small set of companies supply SiO_x products to the market today, but the key players (Shin Etsu, Osaka Titanium, Japan Metals & Chemicals, and BTR) together only supply about [redacted] per year of SiOx. These materials are only used as small fractions of the overall anode composition due to their inherent performance limitations (they tend to swell too much, reducing the cycle life). There are other silicon-based technologies being developed by a number of startups and in the research divisions of incumbents, but as we discuss in the next section, they do not currently play a significant role in the market and in many cases the technology under development is either limited by poor performance, inability to drop in to existing

gigafactories, or other scalability issues. By virtue of the maturity of the graphite marketplace, and the lack of any meaningful silicon-based anode materials in the market today, the graphite incumbents are effectively Sila's major competitors. As discussed above, Sila's material is a drop-in replacement for graphite in all current "gigafactories", as well as those that will be built between now and the time we ramp up our production capabilities.]]

[redacted]

3.10.3. Distribution Channels

[redacted]

3.10.4. Barriers, Mitigation Plan, Commercialization Timeline, US Manufacturing Plan

3.10.5. Legal/Regulatory/IP and Infrastructure Requirements, Data Dissemination, and Product Distribution

[redacted]

4. Technical Qualifications and Resources

4.1. Sila's Expertise

[[The Project will be primarily driven by Sila's Development and Operations team, headed by Sila's Chief Operating Officer Bill Mulligan. Sila will also leverage the expertise of other members of our executive leadership team. Key members of the Project leadership team and their qualifications are listed below.

Bill Mulligan, Chief Operating Officer (PI). Bill Mulligan, Sila's Chief Operating Officer, is a pioneer in the solar industry and, through his work at SunPower Corporation, made major contributions to the worldwide low-cost production of solar photovoltaics. Dr. Mulligan's responsibilities at Sila include those similar to his work at SunPower: Leading the scale-up and cost reduction of manufacturing the silicon anode to mass market levels. As the Executive Vice President of Global Operations for SunPower, Dr. Mulligan led the company's manufacturing, quality, supply chain, planning, and R&D teams worldwide. As Vice President of Research and Development for SunPower, Dr. Mulligan helped build SunPower from a 40-person company in San Jose, California, to a global company of more than 9,000 employees. Under his leadership, SunPower's annual revenue grew from $8 million in 1998, to $2.2 billion in 2010. Dr. Mulligan co-invented and patented the low-cost, large-area, interdigitated back contact (IBC) silicon solar cell—a dramatically simplified version of SunPower's previous silicon solar cell that retained the cell's high efficiency but reduced costs a hundredfold. Dr. Mulligan's demonstrated success in scaling solar cell production, and the parallel between that industry and the silicon anode industry, make him one of the most qualified persons in the world to lead this scale up effort.

Gene Berdichevsky, Co-Founder and Chief Executive Officer. As a Co-Founder and Chief Executive Officer of Sila, Gene Berdichevsky built and leads a team of more than 330 world-class scientists, engineers, and staff that have successfully developed and commercialized next-generation battery chemistry. Mr. Berdichevsky is a leader in battery cell and pack design and co-invented the early-state IP crucial to the success of Sila's first products. Before Sila, Mr. Berdichevsky served as Principal Engineer of Battery Systems for Tesla Motors. Mr. Berdichevsky led the technical development and managed the technical specification of the world's first production automotive LIB system for the Tesla Roadster, helping to spark the EV revolution. He solved the crucial safety challenge of thermal runaway propagation and the architectural design complexity of using more than 6,800 cells. He supported the construction of manufacturing facilities in California. Mr. Berdichevsky's experience building companies at the cutting edge of technology in the battery space, and the leadership he has shown to bring the first silicon anode to market at Sila, will be pivotal for the successful completion of this project.

Gleb Yushin, Co-Founder and Chief Technology Officer. As a Co-Founder and Chief Technology Officer of Sila, Gleb Yushin is responsible for the development of new technologies

and products, leading fundamental and applied research, materials and process innovations, and IP development. Dr. Yushin is an international star and an award-winning professor at the Georgia Institute of Technology, where he is the Mifflin Hood Chair in the School of Materials Science and Engineering (currently on leave-of-absence to focus his time on Sila). He is a recipient of more than 200 awarded and pending US and international patents and a co-author of more than 170 peer-reviewed academic publications (H-index 83, over 38,400 citations, Google Scholar). As a world-renowned expert in the battery-related materials science space, Dr. Yushin will ensure Sila's silicon anode material continues to be the most advanced in the world.

Kurt Kelty, Vice President of Battery Engineering and Commercialization. As the Vice President of Engineering and Commercialization for Sila, Kurt Kelty is responsible for all sales, business development, and battery cell manufacturing partnerships involved in the adoption of Sila's anode material in the automotive and consumer electronics industries. He brings to the Project three decades of experience in the battery industry. Mr. Kelty began working with LIBs when the technology was in its earliest stages. As Director of Business Development for Panasonic from 1991 to 2006, he created alliances and joint development programs to advance Li-ion rechargeable batteries for portable applications. Mr. Kelty joined Tesla in 2006 as the company's Senior Director of Battery Development, where he was responsible for the technical exchanges and commercial negotiations with battery cell suppliers and early stage battery cell developers. His relationships in the Li-ion battery industry led to the creation of the Tesla Gigafactory, the largest Li-ion battery and EV component factory in the world.Mr. Kelty's experience has already led Sila to be the first and currently only silicon anode manufacturer to announce concrete plans to supply material to an OEM (Mercedes).

Warren DeSouza, Chief Financial Officer. Warren DeSouza is Sila's Chief Financial Officer and is responsible for leading the biggest fundraising achievement for the battery supply chain in a single raise ever. He brings to the Project nearly two decades of experience as a senior financial officer for large pharmaceutical companies — an industry notorious for its high R&D costs and a large time-lag between development and revenue realization. As Chief Financial Officer for Aimmune Therapeutics from 2015 to 2017, Mr. DeSouza led the company through a successful IPO process that included accelerating the IPO timeline by six weeks to take advantage of existing market conditions. Mr. DeSouza's experience as an executive in the pharmaceutical industry guiding high investment and long return period projects, is critical for the high capital cost silicon anode industry.

Matt Dawson, VP Engineering. Matt Dawson, Sila's Vice President of Engineering, recently joined Sila in May 2022 as our newest executive. Mr. Dawson brings a tremendous skill set to this Project with over 20 years of experience developing and scaling high technology manufacturing processes and equipment. Formerly at SunPower Corporation, where as VP Research and Development he led a team of over 125 engineers and scientists, Mr. Dawson has led no less than seven major technology deployments from inception (lab scale) to high volume manufacturing (HVM). Many of these innovative and first-of-their-kind technologies have now become the world-wide standard in the solar industry. Matt's deep expertise in manufacturing technology and his track record of success will give Sila the experience to develop first of its kind technology for the Project.

Chris Dougher, VP Operations. Chris Dougher, Sila's Vice President of Operations, has over 15 years of experience managing engineering and operations teams. Formerly at PPG Industries,

Mr. Dougher managed the build of a new facility to produce first of its kind automotive products. Mr. Dougher's experience building new product lines will be invaluable in overseeing the Capital Projects team.

Steve Driskill, VP General Counsel. Steve Driskill, Sila's Vice President and General Counsel, has been leading Sila's IP, compliance, and other legal matters for more than five years. Previous to Sila, Mr. Driskill was a Firm Partner at Muncy, Geissler, Old & Lowe P.C. where he advised technical companies on IP related legal matters. Mr. Driskill's long experience ensuring IP protection for companies is critical as Sila develops partnerships.

This Project will be Sila's top priority. [redacted]

4.2. Partnerships and Partner Capabilities

[[As demonstrated throughout this application, Sila has built strong relationships spanning every aspect of the silicon anode and battery industries, as well as their ultimate applications that are required for a successful project.

Included with this application are Letters of Support from [redacted] One of the many differentiators of Sila from other potential competitors is that it has already been testing and validating commercial materials with many of its potential customers for years. The test results from these partners are getting better and better with time, while testing is becoming even more rigorous, progressing from initial cycle life testing, to calendar life testing, expansion rates, impedance growth and safety

testing. Sila's validation has progressed to the point where performance is less of a concern for our customers. Today, our customers' main concern is how to get more material sooner. How can Sila scale faster? With the Department of Energy's support, this Project can accelerate scaling of this product to meet our customers demands.

Sila's application is supported by two U.S. Department of Energy National Labs — Pacific Northwest National Laboratory (PNNL) and Argonne National Laboratory (ANL). The programs Sila will be running with these partners will help push forward the technical advancement of our products, unlocking additional energy density and cycle life for Sila's customers (Note: Due to timeline constraints, some documents including FFRDC paperwork for ANL will be supplied during diligence phase).

Partnerships with local groups around Moses Lake are important for building a robust and equitable pipeline of skilled workers for the project. will help Sila train local workers to fill many of the hundreds of new jobs that will be necessary to complete the project.]]

4.3. Sila's Facilities

4.3.1 Material Production and R&D Facilities

[redacted]

4.3.2 R&D and Battery Testing and Development Facilities

[redacted]

4.3.3 Metrology and Characterization Facilities

[redacted]

4.3.4 Foreign Entities of Concern

[redacted]