

**U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION**



RECIPIENT: SPAN.IO

STATE: CA

PROJECT TITLE: Advanced Distribution Grid Infrastructure (ADGI)

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-EE0009014	GFO-0009014-002	GO9014

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

A9 Information gathering, analysis, and dissemination

Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

B3.6 Small-scale research and development, laboratory operations, and pilot projects

Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to SPAN.io, Inc. (SPAN) to design, fabricate, and test hybrid inverter prototypes for inclusion in their current SPAN Load Center technology. The SPAN Load Center is an electrical panel designed for residential use in photovoltaic (PV) solar and battery storage systems. Proposed project activities aim to improve SPAN's current technology by increasing efficiency and decreasing costs for residential customers using distributed energy resources (DERs).

A NEPA Determination (ND) for this project was signed on 01/22/2020, i.e., GFO-0009014-001. Since the original ND, SPAN has added additional work locations as their company has expanded over time. The Statement of Project Objectives (SOPO) has also been adjusted as the work has needed to change to successfully capture all necessary aspects of product development.

Proposed project activities would focus primarily on readying a hybrid inverter prototype for future pilot scale operations. The types of activities associated with the project would include outreach, data analysis, preliminary engineering/design, and laboratory research. The project would consist of two Budget Periods (BPs). BP1 would be iterative in nature and involve the design, fabrication, and testing of initial and engineering prototypes. BP2 would focus on the design and fabrication of production-intent prototypes followed by various forms of validation testing. Associated activities would include outreach and customer engagement throughout the course of the project.

Project management, data analysis, design, development, prototype assembly, and some testing activities would occur at SPAN headquarters in San Francisco, CA. Testing of the hybrid inverter prototypes with solar and battery loads would be performed at SPAN's South San Francisco laboratory facility. SPAN's Research and Development facility in Milwaukee, WI would be responsible for hardware research and testing. The Power Electronics team would design, develop, and validate the power electronics module in a Norcross, Georgia facility. Certification-ready product testing and validation would be performed by various third-party and/or nationally recognized test laboratories. All work would be performed in dedicated research and development (R&D) facilities, using a combination of existing equipment and specialty parts and supplies obtained for the proposed fabrication activities. No change in the use or mission of existing facilities would arise out of this effort.

Proposed activities would involve typical hazards associated with working on High Voltage (HV) electrical equipment. Existing health, safety, and environmental policies and procedures would be followed to mitigate hazards to

acceptable levels. All activities would comply with existing federal, state, and local laws and regulations.

DOE has considered the scale, duration, and nature of proposed activities to determine potential impacts on resources, including those of an ecological, historical, cultural, and socioeconomic nature. DOE does not anticipate impacts on these resources which would be considered significant or require DOE to consult with other agencies or stakeholders.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Solar Energy Technologies Office
NEPA review completed by Corrin MacLuckie, 05/09/2023

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



Andrew Montano

NEPA Compliance Officer

Date: 5/9/2023

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
 Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____