

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



RECIPIENT: FirstElement Fuel

STATE: CA

PROJECT TITLE : Next Generation Multi-Use Heavy-Duty High-Flow Direct-Fill Hydrogen Refueling Station with Standardized Design

Notice of Funding Opportunity Number
DE-FOA-0003213

Procurement Instrument Number
DE-EE0011523

NEPA Control Number
GFO-0011523-001

CID Number
GO11523

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.)

B1.31 Installation or relocation of machinery and equipment

Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.

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 FirstElement Fuel (FEF) to design, develop, fabricate, and implement a direct fill liquid hydrogen cryopump refueling station to meet market demand for commercially viable fuel cell trucks.

The project would be completed over four Budget Periods (BPs). Proposed activities during BP1 would include permitting, modeling, designing, prototype building, pre-commercial test unit building, contracting, site preparation design, preliminary testing, and Diversity, Equity, Inclusion, and Accessibility (DEIA) surveys. BP2 activities would include final test site preparation, permitting, site engineering, equipment building, and system building. BP3 activities would include identifying residents for a test-driving program, energy equity community engagement, workforce training and analysis, building and testing a dispenser, test site preparation, equipment shipping, and installation. BP4 activities would include station operation, data collection, and reporting. Activities taking place during all BPs would include the creation of a Hydrogen Safety Plan, Reporting Plan, and Community Benefits Plan.

The extent of testing required, and final station footprint and layout have not yet been determined. As such, this NEPA Determination only applies BP1 and Tasks 0 and 8, which take place throughout the award (reporting and Community Benefits Planning, respectively). DOE would complete the NEPA review for BP2, BP3, and BP4 when sufficient information is available to conduct a meaningful review.

Technoeconomic analyses and modeling would take place at the National Renewable Energy Laboratory (NREL; Golden, CO). FEF (Santa Ana, CA) would perform equipment engineering and design activities, with preliminary testing on the prototype unit occurring at their Livermore, CA location. The FEF Port of Oakland Heavy Duty Fueling Station (Oakland, CA) was selected as a test location for the pre-commercial unit.

Proposed project work at NREL, FEF Santa Ana, and FEF Livermore would be performed at existing, purpose-built facilities. No changes to the use, mission, or operation of these facilities, modifications, or ground disturbing activities would be required. No additional permits, licenses, or authorizations would be required.

At the FEF Port of Oakland site, the existing pump skid would be removed, and a new pump module would be installed to test the pre-commercial unit. This would require the removal of the existing equipment and the installation of a prefabricated concrete foundation. As the new test module would replace the existing skid, no ground disturbance is anticipated outside of the footprint of the skid. The proposed equipment changes would require amendments to the site's existing city and county permits.

Individuals working on this project could be exposed to physical hazards, such as handling of liquid and gaseous hydrogen and nitrogen. Existing corporate health and safety policies and procedures would be followed, including a hazard and operability study. An approved hydrogen safety plan would be created and approved. All hazardous material would be managed in accordance with federal, state, and local environmental 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.

EERE is aware of the November 12, 2024, decision in *Marin Audubon Society v. FAA*, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality (CEQ) regulations implementing NEPA are not judicially enforceable or binding on this agency action, EERE has nonetheless elected to follow those regulations at 40 C.F.R. Parts 1500-1508, in addition to DOE's procedures/regulations implementing NEPA at 10 C.F.R. Part 1021, to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.

NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Task 0, Task 8, and Budget Period 1

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Budget Periods 2, 3, and 4

Notes:

Hydrogen and Fuel Cell Technologies Office (HFTO)
Review completed by Alex Colling on 12/12/2024.

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.

A portion of the proposed action is categorically excluded from further NEPA review. The NEPA Provision identifies Topic Areas, Budget Periods, tasks, and/or subtasks that are subject to additional NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Electronically Signed By: Melissa Parker Date: 12/16/2024
NEPA Compliance Officer

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: _____ Date: _____
Field Office Manager