

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



RECIPIENT: Infinite Elements Inc.

STATE: TX

PROJECT TITLE : Techno-Economic and Life Cycle Assessment of Biohydrometallurgical Critical Mineral Recovery from E-Waste and Manufacturing Scrap

Notice of Funding Opportunity Number
DE-FOA-0003155

Procurement Instrument Number
DE-EE0011728

NEPA Control Number
GFO-0011728-001

CID Number
GO11728

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:

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 funding to Infinite Elements, Inc. (IE) to design, fabricate, and operate a pilot-scale biohydrometallurgical processing system for recovery of critical minerals and materials (CMMs) from electronic waste (e-waste) and manufacturing scrap; i.e., a biological leaching operation to separate out metals from e-waste.

Bioleaching process development, microbial strain engineering, enzyme optimization, and data analysis would occur at the National Laboratory of the Rockies in Golden, Colorado. The processing system would be installed at IE's Innovation Factory in El Paso, Texas, consisting of 100- and 350-gallon tanks and associated equipment. E-waste would be collected from the city of El Paso by IE, transported to the Factory, and processed. Additional activities at this facility would include materials testing and validation, data collection and analysis, and refinement of processes.

All activities, other than collection and transport of e-waste, would take place in facilities designed for the type of work proposed. No outdoor installations or ground disturbing activities would be required. Potential hazards include working with acidic solutions, heavy metal-containing leachates, and microorganisms. Award recipients would adhere to established health and safety policies and procedures when performing project work, and would observe all applicable federal, state, and local health, safety, and environmental regulations.

DOE has considered the scale, duration, and nature of the 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:

Advanced Materials and Manufacturing Technologies Office
NEPA review completed by Andrew McClellan, 4 June 2026

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposal fits within a class of actions that is listed in Appendix B to 10 CFR Part 1021 or Appendix B and C of DOE's NEPA Implementing Procedures (June 30, 2025). To fit within the classes of actions listed in Appendix B to 10CFR Part 1021, or Appendix B of DOE's NEPA Implementing Procedures, a proposal must satisfy the conditions that are integral elements of the classes of actions in Appendix B of both 10 CFR Part 1021 and DOE's NEPA Implementing Procedures.

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.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

 Electronically
Signed By: **Nicole Serio**
NEPA Compliance Officer

Date: 6/9/2026

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: _____