

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



RECIPIENT: COnovate Inc.

STATE: WI

PROJECT TITLE : Accelerate Validation of a Domestic, Sustainable Alternative for Battery Grade Graphite in Lithium-ion Batteries

Notice of Funding Opportunity Number
DE-FOA-003155

Procurement Instrument Number
DE-EE0011730

NEPA Control Number
GFO-0011730-001

CID Number
GO11730

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 federal funding to COnovate Inc. to test commercially available laboratory and pilot scale manufacturing equipment to synthesize composite powders (eCOphite) from bio renewable carbon sources.

The proposed award activities would include data analysis, design, testing, techno-economic analysis (TEA), and laboratory research. COnovate Inc. (Wauwatosa, WI) and American Energy Technologies Company (AETC; Wheeling, IL) would carry out process testing and lab scale synthesis of composite carbon-based materials from bio renewable feedstock, as well as safety and hazard assessments of materials, handling, and processing. Materials manufactured at AETC would then be sent to COnovate Inc. for property and material testing, data analysis, TEA, and distribution to battery partners. COnovate Inc. and Lithion Battery Inc. (Henderson, NV) would fabricate and test charge/discharge cycles of half-cell lithium-ion battery coin cells. Argonne National Laboratory (Lemont, IL) would assist with fabrication and testing of charge/discharge cycles of larger lithium-ion batteries and preliminary analyses.

All project activities would be completed in existing, purpose-built facilities. These facilities already carry out similar development, testing, and prototyping activities. All activities would be carried out at the laboratory bench-scale and no modifications would be made to facilities to test the prototype.

Potential hazards would include the use and handling of potentially hazardous materials, including fine powders, corrosive or flammable solvents, compressed or pressurized gas systems, electrolytes, metals, and metal oxides. The operation of laboratory equipment would expose employees to potential hazards such as moving parts, loud machinery, and hot surfaces. Atmosphere controlled glove box filters would be used for evaporation of potentially hazardous emissions and fine particulates would be trapped and separated out during thermal processing. All such handling would occur in-lab. Existing corporate health and safety policies and procedures would be followed, including employee training, proper protective equipment, monitoring, and internal assessments. All hazards would be managed in accordance with federal, state, and local environmental regulations.

Lithion Battery Inc. has a conditional use permit with the city of Henderson to store up to 1,500 gallons of n-methyl-2-pyrrolidone (NMP) in a dedicated hazmat storage room and up to 300 gallons as Work in Progress (WIP) on the production floor. This permit also would allow the storage of up to 300 gallons of liquid electrolyte in a dedicated hazmat storage room on-site and up to 50 gallons stored as WIP on production floor.

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:

Advanced Materials and Manufacturing Technologies Office (AMMTO)
NEPA review completed by Alex Colling on 05/07/2026.

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: 5/8/2026

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: _____