

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



**RECIPIENT:** Thyssenkrupp Nucera USA Inc.

**STATE:** TX

**PROJECT TITLE :** ScalumGW

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0002922	DE-EE0011307	GFO-0011307-001	GO11307

**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 Thyssenkrupp Nucera USA Inc. (TN) to develop and demonstrate innovations in the manufacturing of liquid alkaline electrolyzer production.

The proposed award would occur over three budget periods (BPs), with two Go/No Go decision points between the BPs. This NEPA Determination (ND) only applies to BP1. Award activities in BP1 would occur at TN (Houston, TX) and De Nora Tech (Mentor, OH) and would include project management activities, financial modeling, ordering of lab equipment, research and development of alternative cell coating and production technologies, installation of lab equipment, modeling of electrode manufacturing line, determining equipment specifications and alternative manufacturing and production technologies for assembly line, factory property search, and development of assembly line layout. A community benefits plan would be developed and implemented throughout the BPs.

Award activities in BP2 and BP3 would include equipment procurement for electrode manufacturing, selection of component suppliers, preparation of facilities for demonstration, testing of assembly line, supply chain development, facility modifications for utilization of project equipment, and buildup, commissioning, testing, and ramp-up of an automated pilot line. Award activities would occur at TN, De Nora Tech, and an unknown location that would be determined in BP1.

As award activities completed in BP1 would further identify activities that would be completed in BP2 and BP3, there is insufficient information available at this time to complete a thorough review of anticipated award activities identified in BP2 and BP3. Once the necessary details are submitted, DOE would complete NEPA review for BP2 and BP3.

Award activities in BP1 would involve the use and handling of acids, bases, nickel, cobalt, and other hazardous

materials. Hazardous materials would be utilized, managed, stored, and disposed of in accordance with applicable federal, state, and local environmental regulation and would pose no risk to the public. Existing health, safety, and environmental policies and procedures would be followed at each facility to minimize health and safety risks to employees and the public.

All project activities in BP1 would be completed in existing, purpose-built facilities that are currently used for the type and scale of activities being proposed. Award activities at De Nora Tech would include installation of tanks, generators, transformers, and other supporting equipment outside, adjacent to the facility, and used similarly to existing operations. No changes in the use, mission, or operation of existing facilities would arise out of activities in BP1. Existing air and water emissions permits at De Nora Tech would be amended to account for additional operations at the facility.

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.

## NEPA PROVISION

DOE has made a conditional NEPA determination.

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

[Budget Period 1](#)

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

[Budget Period 2](#)

[Budget Period 3](#)

Notes:

[Hydrogen and Fuel Cell Technologies Office \(HFTO\)](#)  
[NEPA review completed by Brittany White, 6/28/2024](#)

## 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  
NEPA Compliance Officer

Date: 7/1/2024

**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: \_\_\_\_\_