

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



RECIPIENT: Kent Houston Offshore Engineering LLC

STATE: TX

PROJECT TITLE : Full-Scale FOWT Platform in U.S. OCS Region

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002236	DE-EE0009425	GFO-0009425-001	G09425

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 funding to Kent Houston Offshore Engineering LLC (Kent) to advance the engineering and design of a floating offshore wind turbine platform (FOWT). Kent would lead a project team that would include ABS (Sprint, TX), Ocergy (Oakland, CA), OW North America (Cambridge MA), Shell International (Houston, TX) and MARIN (The Netherlands).

The proposed project would be divided into three tasks, each with multiple subtasks. This NEPA review will cover all subtasks except for subtask 1.4.

Subtasks under task 1 are tasks to be conducted prior to Front End Engineering and Design (FEED), which would occur in task 2. Subtasks 1.1 – 1.3, 1.5 – 1.8, and 1.10 – 1.11 would include initial evaluation of technologies, economics, sizing and project management. These tasks would be analytical in nature, including information gathering and data analysis, engineering, design, and project management. These tasks would also include collecting and analyzing existing site data. All such tasks would be completed by Kent and project partners at office locations. Subtask 1.4 would include obtaining additional site data, specifically conducting geological and geophysical surveys. This task would involve in ocean survey work and would have the potential to impact Endangered Species Act listed species. As such, this task is restricted until Kent provides additional information regarding potential impacts to species, including a Biological Evaluation, if necessary, and until DOE completes any required consultations. Subtask 1.9 would include fabrication and testing of a model platform and will be discussed below along with subtask 2.11.

Subtasks under task 2 are considered FEED tasks. Subtasks 2.1 – 2.10 and 2.12 - 2.14 would consist of front-end engineering and design including total systems engineering, design, naval architecture, regulatory review, systems analysis, project planning and execution planning, and project economics. All such tasks would be completed by Kent and project partners at office locations. Subtask 2.11 would include fabrication and testing of a model platform and will be discussed below along with subtask 1.9.

Subtasks under task 3 are considered post FEED detailed design tasks. These would include final engineering, configuration, naval architecture, modeling, project management and execution, final regulatory reviews, technical assurances, and economics. All such tasks would be completed by Kent and project partners at office locations.

All subtasks described above would be academic in nature and would be limited to data gathering and analysis type work.

Subtasks 1.9 and 2.11 would include model fabrication and testing. All fabrication and testing would be completed by MARIN at their facilities in The Netherlands. Scale models would be fabricated from steel, aluminum, rubber, carbon, and PVC. Total amount of materials would be less than 100 kilograms. Off the shelf measurement sensors would be attached to the scale models. The models would then undergo testing at the MARIN basin. Testing would include compressed air chamber model testing and wind and wave model testing. Each test would last for approximately 5 days. MARIN is a preexisting facility which includes fabrication facilities, a wave basin and additional testing infrastructure. All work at MARIN would be conducted indoors at existing facilities. MARIN would follow existing corporate health and safety procedures during all phases of work, including procedures regarding protective equipment, employee safety, and waste disposal.

NEPA PROVISION

DOE has made a conditional NEPA determination.

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

All tasks except subtask 1.4 (Site Assessment Survey)

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

Subtask 1.4 (Site Assessment Survey)

Notes:

Wind Energy Technologies Office

This NEPA determination does require a tailored NEPA provision.

Review completed by Roak Parker, 12/1/2021

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.

DOE has determined that work to be carried out outside of the United States, its territories and possessions is exempt from further review pursuant to Section 5.1.1 of the DOE Final Guidelines for Implementation of Executive Order 12114; "Environmental Effects Abroad of Major Federal Actions."

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: Roak Parker

Date: 12/1/2021

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: _____